



Kensington and Chelsea Multi-Agency Flood Plan Surface Water Flooding

Controlled Document	
Public Version	
Issue Number	3
Date of Issue	04 February 2013



Publishing Information

Document Ownership	Kensington and Chelsea Borough Resilience Forum c/o Contingency Planning Unit (Secretariat) Royal Borough of Kensington and Chelsea Room 315, The Town Hall Hornton Street, Kensington, W8 7NX
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Publication History	Issue 1 – 18 th January 2010 Issue 2 – 26 th April 2011
Security Classification	PROTECT Because of the details of emergency management, fallback centres and contact numbers, this document has been classified as PROTECT, and should only be shared with those with a particular need for it. A Public version is available with the restricted details removed.
Distribution	Royal Borough of Kensington and Chelsea Metropolitan Police (Kensington and Chelsea Borough Command Unit) London Fire Brigade (Kensington and Chelsea Borough Command Unit) London Ambulance Service NHS Kensington and Chelsea Chelsea and Westminster Hospital NHS Trust

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1. INTRODUCTION

Due to the risk of flooding from the River Thames and the surface water flooding events throughout the UK in 2007 it was agreed that a multi-agency flood plan (MAFP) would be produced by each Local Authority in order to tackle the specific and bespoke impacts and actions required in a response to a flood incident. This document outlines the multi-agency response to a severe Surface Water Flooding incident in the Royal Borough of Kensington and Chelsea. Below are a list of considerations and guidance to the use of this document:

- Responding agencies within the Royal Borough of Kensington and Chelsea have their own generic and / or specific organisational plans. Multi-agency training and exercising is undertaken, but at present multi-agency plans are primarily developed from a London-wide perspective including the LESLP (London Emergency Services Liaison Panel) Major Incident Procedure Manual and the London Strategic Flood Plan.
- There are two types of flooding that could affect the borough; Surface Water Flooding and a Thames Breach/Overtopping flooding incident. This document only considers a major Surface Water Flooding incident within the Borough. For Guidelines of a multi-agency response to an incident of a Thames Breach/Overtopping Flood please refer to “Kensington and Chelsea Multi Agency Flood Plan: Thames Breach/Overtopping Flood Plan”.
- This plan does not include emergency contact numbers and activation arrangements which responding organisations already maintain.
- This plan covers the Royal Borough of Kensington and Chelsea’s multi-agency response to a surface water flooding incident; however floods will not have regard for political and administrative boundaries. As such this plan must be shared and liaison arrangements made with other neighbouring boroughs and agencies.
- Detailed information on the flood risks within Kensington and Chelsea can be found in Section 4 of this plan.
- This plan will be reviewed and amended on a yearly basis. However, if any new risks are identified or lessons learned the review may take place at an earlier stage as is deemed necessary. All responders must be notified if any amendments occur.

2. AIMS AND OBJECTIVES OF PLAN

2.1 Aims

The aim of this MAFP is to provide a co-ordinated multi-agency response framework to mitigate the impact of a large scale Surface Water flooding incident occurring in the Royal Borough of Kensington and Chelsea. It provides guidance on a multi-agency response to deliver the following objectives:

2.2 Objectives

- To increase awareness and preparedness of communities at risk from surface water flooding through the provision of advice and information;
- Manage the wider impact of surface water flooding events in the borough to reduce disruption to the communities, utilities and environment;
- Manage precautionary actions to preserve life for the highest-impact surface water flood risks;
- To prioritise the identification of and required responses to protect the vulnerable within the community;
- Provide accurate and timely information to the public and local business on flood response;
- Lead recovery activity to support the recovery of communities and business; and
- Maintain critical services within each organisation as part of business continuity arrangements.

2.3 Overview of Flooding in the Borough

The two types of flooding which pose a significant risk to the borough of Kensington and Chelsea **Surface Water Flooding** or a **Thames Breach/Overtopping flood**. This plan will only focus on the response to a surface water flooding incident within The Royal Borough of Kensington and Chelsea. A description of the nature of surface water flooding and the associated risks as well as the risk of underground water ways flooding which would be impacted by large quantities of surface water are summarised in the following:

Significant Risk	
Surface Water Flooding	Surface water flooding can occur from a variety of sources such as burst water mains, blocked gullies and increasingly heavy rainfall. These are unpredictable and could occur anywhere within the borough. Both causes are relatively unpredictable and may result in flooding with little or no warning. APPENDIX B demonstrates the risk of Surface Water Flooding in the Area. The Royal Borough of Kensington and Chelsea Borough Risk Register expects that in a surface water flooding incident there will be minor inundation of properties and road closures or potential loss of life and devastation of property necessitating the implementation of a co-ordinated recovery plan. Flooding of up to 200 properties. Potential loss of life due to public in vehicles crossing fords with high velocities. The risk is highlighted as a high priority. Please refer to the document for full details.
Low Risk	
Underground Waterways	The borough has two underground waterways which could potentially be a flood risk. The first is Counters Creek which has caused minor flooding incidents in the past. Counters Creek runs along the West boundary of the borough. The other potential risk is the River Westbourne which runs along part of the Eastern border of the borough joining the River Thames. The flooding of either of these rivers offer a very low risk to the borough.

2.4 Planning Assumptions

It is important to be clear about planning assumptions that are being used by everybody to ensure consistency in approach. The definitions of such assumptions are listed below:

Surface Water Flooding: Assume no warnings from the Environment Agency. Potential Met Office warnings of heavy rainfall but timeframes are unpredictable.

Water Rescue: Assumes the use of only emergency services boats helicopters and high clearance vehicles (Not self-presenting voluntary operators whose standard of training is unknown.).

Infrastructure: This plan does not take into account damage or failure of power stations, road and rail links specifically, but references are made to traffic management and evacuation procedures.

Vulnerable Persons: Includes any person that falls into the surface water flooding risk zones as defined by the maps in Appendix B.

3. OWNERSHIP AND AUDIENCE

The Kensington and Chelsea Borough Resilience Forum will be responsible for updating and maintaining the Multi-Agency Flood Plan. The plan will be updated and reviewed on an annual basis. However, if an incident occurs, lessons and risks identified or organisational restructure occur, the plan could potentially be reviewed at an earlier date. Any updates and amendments to the plan must be communicated to all responders.

The intended audience for this plan is all Category 1 and 2 responders under the Civil Contingencies Act 2004 and Key Voluntary response organisations. The list below provides a comprehensive overview of the organisations included in these categories but is not an exhaustive list:

Category 1 Responders

- The Royal Borough of Kensington and Chelsea
- Environment Agency
- Metropolitan Police Service
- London Fire Brigade
- London Ambulance Service
- NHS Kensington and Chelsea.
- NHS Acute Trusts
- Health Protection Agency

Category 2 Responders

- EDF Energy
- Thames Water
- Transport Operators
- National Grid
- Health and Safety Executive
- Strategic Health Authority

4. THE RISK OF FLOODING

4.1 Historical context

In July 2007 The Royal Borough of Kensington and Chelsea, along with a number of other areas throughout the UK, experienced extremely heavy rainfall in very short time spans leading to a number of serious cases of Surface Water Flooding. The flooding had a major impact on communities and, following the Pitt review into these events prompted the need for each borough to produce a Multi-agency Flood Plan.

4.2 Methodology for Surface Water Flooding Mapping

The Surface Water flooding Data was provided to the Royal Borough of Kensington and Chelsea by the Environment Agency to produce the maps in APPENDICES B and C of this document. The methodology for creating the maps can be found in the documentation “Surface Water Flooding Guidance Notes, July 2009” by the Environment Agency.

According to the Environment Agencies Guidance the Flood Risk Categories is described as follows:

Likelihood is described in one of three categories: low, moderate or significant, as used by the insurance industry. This takes into account the effect of any flood defences that may be in the area.

Low: The chance of flooding in any year is 0.5% (1 in 200) or less)

Moderate: The chance of flooding in any year is 1.3% (1 in 75) or less, but greater than 0.5% (1 in 200)

Significant: The Chance of flooding in any year is greater than 1.3% (1 in 75)

4.2 Overview of Surface Water Flood Risk in the Area

It can be surmised from analysing the Surface Water flooding maps provided by the Environment Agency and the associated data that there are a significant number of local residents and businesses at a small to moderate risk of surface water flooding. There is a particularly serious risk in the

Gloucester Road and South Kensington Area with many high risk areas being identified from the maps as well as on the Western Boundary of the borough between Ladbroke Grove Underground station and Holland Park Avenue.

Please refer to APPENDIX B for maps providing an overview of areas and roads at risk in the Borough from Surface Water Flooding.

4.5 Communities at Risk

APPENDIX E outlines the roads and hence the communities in the Borough which are at the highest risk from surface water flooding. The lists were derived from the flood map data provided by the Environment Agency.

It can be surmised from the data that there are a significant number of roads at very high risk from surface water flooding within the Borough and the corresponding communities should be prioritised if a flooding incident occurs. Please note that communities facing very low to moderate risk of surface water flooding have not been identified in this list but can be verified from the green coloured areas on the maps in APPENDIX B. The large spread of communities at risk from surface water flooding coincides with the Borough's Risk Register which categorises Surface Water Flooding as a High Priority Risk.

The London Fire Brigade provided call log information from the 20th July 2007 flooding which affected the Borough. APPENDIX F includes a list of roads which the London Fire Brigade were called out to more than once during the flooding and which were not highlighted as particularly high risk areas by the Environment Agency Maps but should be considered as a priority if a Surface Water flooding Incident arises.

4.6 Key Infrastructure at Risk

There are a number of key Infrastructure points which are at risk from flooding in the area. APPENDIX D identifies key sites, infrastructure and vulnerable people (social care homes, mental health units, etc.) in the Royal Borough of Kensington and Chelsea which are at risk from surface water flooding based on the data provided by the Environment Agency. APPENDIX C provides maps of some of the highest risk sights and their surrounding areas. For the purpose of this report the following lists outlines what is considered key infrastructure and should be prioritised in the case of surface water flooding. The list is not an exhaustive list.

- Police Stations
- Fire Stations
- Hospitals / A & E's
- Local Authority Offices / Depots
- Schools
- Transport Links
- Sewage Treatment plants
- Electrical sub-stations;
- Telephone exchanges;

The results show that in particular there are number of schools, council offices and transport links that are particularly vulnerable to Surface Water flooding. There are no fire stations at risk.

The three police stations identified are all a moderate to low risk of surface water flooding and only one hospital in the Borough has a low to moderate risk of surface water flooding. These sites are all identified, with contact details and support needed in Appendix D.

5. RELATED AND INTERDEPENDENT PLANS

The Multi-agency Flood Plan has a number of interrelating plans which are relevant to a serious flooding incident within the boroughs boundaries. The different plans cover different aspects of emergency response and avoid unnecessary duplications.

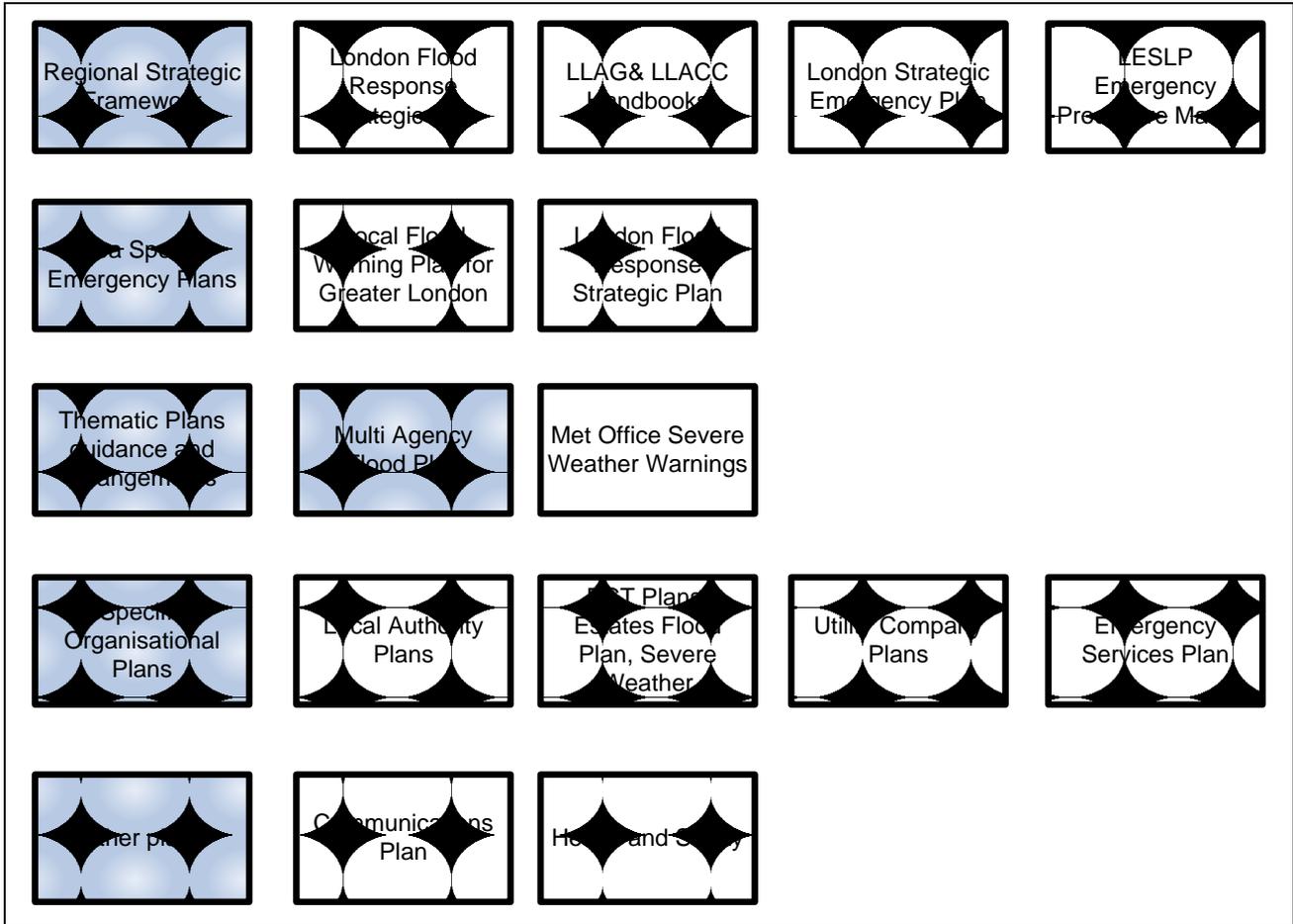
5.1 Regional and National Interrelated Plans

Additionally there are a number of Regional (London) specific and National plans which will be referred to in the case of a flooding incident in The Royal Borough of Kensington and Chelsea and will support this document.

Title	Owned By
London Flood Response Strategic Plan	London Resilience
London Mass Evacuation Plan	London Resilience
Local Flood Warning Plan for London	Environment Agency
London Strategic Emergency Plan and Associated Specific Plans	LRRF
LESPL Major Incidents Procedures Manual	LESPL Panel

Figure (1) demonstrates how regional and national plans can be fitted together.

Figure (1) : Fitting Emergency Plans Together



6. COMMUNICATION PLAN

Communication with will be vital in the response to any major flooding event.

6.1 Internal Escalation Procedures

Contact details of key personnel are not held within this plan. If flood warnings given by the Environment Agency are relevant to this borough the emergency planning and resilience team or LALO in conjunction with the communications team will contact the Chief Executive, Directors, relevant Councillors, and any other internal staff as necessary.

6.2 Members

It is essential that in the build up to, during and after a flooding event that Council Members are informed. As a minimum the Leader and appropriate executive members should be provided with a situation report. Where possible ward councillors should be informed and provided with key information. In time all Councillors should be informed. This will be managed as directed in the emergency handbook through the BECC in conjunction with the communications team.

6.3 Organisational Staff

Employees must be kept up-to-date with the latest information. Each agency has their own mechanisms for informing staff as required which is detailed in separate agency emergency plans.

6.4 Cross Boundary Mutual Aid

In the event that mutual aid is required to neighbouring boroughs this will be managed internally by each responding agency. Being separate organisations Local Authorities have a mutual aid agreement where mutual aid would be requested and provided through the LALO or BECC.

Where an incident has resulted in the BECC being activated the communications team will work with partner Local Authorities and agencies, in particular the Metropolitan Police, to deliver a clear and unified multi-agency statement and regular follow ups including well into the recovery phase.

If a pan-London incident has been declared, all local authorities will activate their BECC in response or to provide mutual aid, communications will be managed through this process.

6.5 Media

The local Authority and Police Communications and Media Teams need to ensure there is a single message in relation to the response. Where other agencies are involved, their views on the media strategy will need to be considered. The Local Authority will take the lead media role in relation to Recovery.

Communication between partner agencies will take place at

- Silver meetings
- Gold meetings
- Between agency press teams

6.6 General Public

Information leaflets can be found on the Environment Agency website and in Appendix F of this document which give guidance on before during and after flooding. The Environment Agency states that anyone who is at risk of flooding is advised to develop a flood plan and make sure everyone is aware of what to do should the need arise to use it.

The Council, with consultation with the Metropolitan Police will provide up to date and consistent information for the public through the media. The Council website will be important for these messages as well as the setting up of an information line via the Contact Centre.

6.7 Public Helpline

The Environment Agency has a 24hour telephone information service called Floodline. Contact details of this service can be found in the Environment Agency leaflets in Appendix F. Customers trying to contact the council should call the council contact centre number.

In the event of significant flooding the council may establish a dedicated flood line number for the public.

6.8 Vulnerable People

More information on vulnerable persons can be found in Section 8. It will be the Emergency Services and emergency controllers decision as to the support to be given to these persons on a priority basis.

6.9 Schools

All schools in the floodplain should be signed up to the Environment Agency Floodline Warnings Direct. All decisions made by the Head Teachers must be recorded and coordinated by Family and Children's Services. It is imperative that Family and Children's Services keep the BECC updated as to whether

schools are evacuated, open or closed. The Council's BECC and LALO are on hand to assist with evacuation of any schools affected by flooding or those where pupils are retained for any length of time.

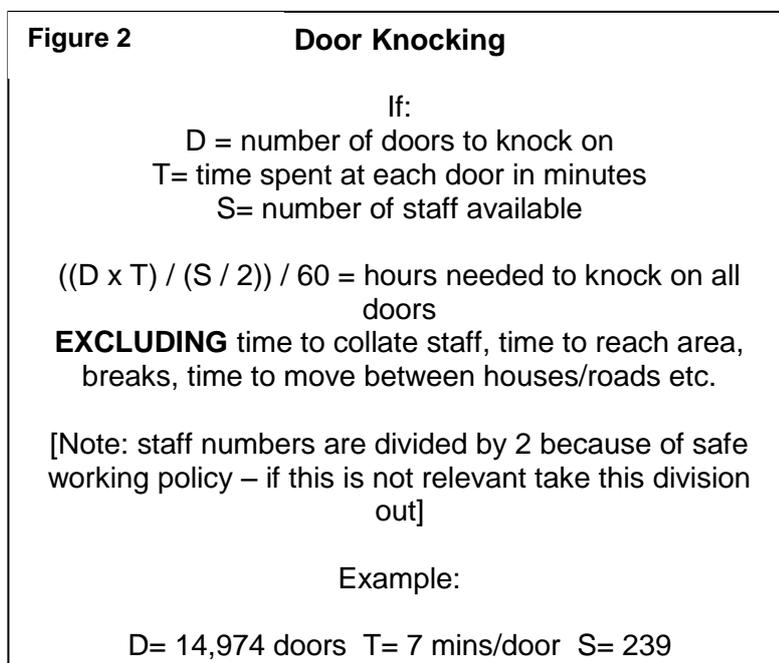
6.10 Faith/Minority Groups

Where necessary faith groups and minority groups may be asked to assist with communications to their communities. This will enable appropriate religious and ethnic community leaders to ensure warning and information messages are passed to the community and to ensure customs and beliefs are respected.

6.11 Door Knocking

As can be seen from figure 2, literal door knocking may not be successful due to constraints on time and staff. Therefore we cannot confirm that The Royal Borough of Kensington and Chelsea Council will always knock on doors in the flood zone areas. We may knock on one door of a road and ask those persons to inform the rest of their street. We may prioritise vulnerable persons (if applicable) in a flood zone area. We suggest that those people in flood zones sign up to the Environment Agency Floodline Warnings Direct, as they will then be informed of any potential threats.

The only time door knocking will be used is to communicate with vulnerable people in circumstances of a public network failure.



7. PLAN ACTIVATION

7.1 Trigger Points for Surface Water Flooding Plan Activation

Prior to Flooding Occurrence:

All Category 1 and 2 organisations to make their own arrangements to receive severe weather warnings from the Met Office and to disseminate information internally as appropriate.

The Royal Borough of Kensington and Chelsea to quantify any severe weather warnings and to disseminate warnings to vulnerable persons and sites listed in APPENDIX D.

During and Post Flooding Occurrence:

London Fire Brigade: to inform the BECC if any batch mobilisation occurs due to a number of calls regarding surface water flooding from members of the public.

Metropolitan Police Service: IBO to get in contact with the BECC if they start to receive surface water flooding related calls from members of the public.

The Royal Borough of Kensington and Chelsea “Here to Help Service”: to contact the BECC if the service starts to receive a high volume of surface water flooding related calls from the public.

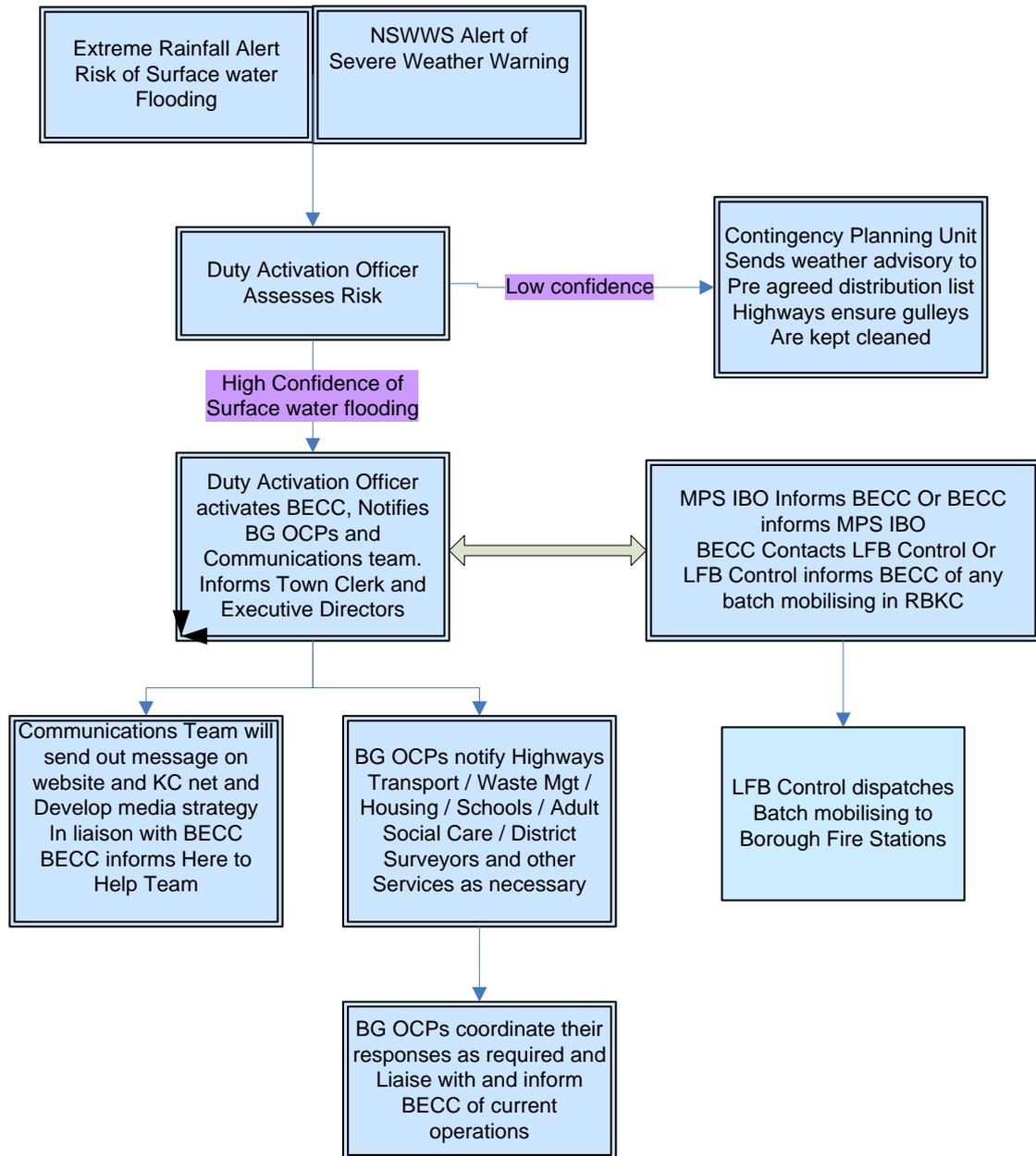
If any of these trigger points occur the Borough Emergency Control Centre will initiate the Multi Agency Flood Plan.

Figure 2. Demonstrates the Activation Flow of the Multi Agency Plan

7.2 Rationale

Met Office Severe Weather Warning: due to the unpredictable nature of severe weather, a multi-agency response will only be reactive once flooding has actually occurred. Internal actions will be taken as per contingency plan existing arrangements, such as informing Highways, Cleansing and Housing.

Figure (2) Surface Water Flooding Activation Flow Chart for Kensington and Chelsea’s Multi Agency Response:



8. ACTION, ROLES AND RESPONSIBILITIES

The different agencies responding to a Surface Water Flooding flood event will carry out their duties as stated in the LESLP Procedure Manual (with focus on Annex E of said document), the London Strategic Flood Plan and will also carry out any borough and site specific arrangements as appropriate. The following pages state the different responding agencies responsibilities with regards to a surface water flooding event.

8.1 Activation and Response

Response to a Surface Water Flooding will require a multi-agency approach; the liaison with all blue light responders, the environment agency and other stakeholders as required is essential.

8.2 Escalation of Response

If a Major Incident is declared a Silver Coordinating Group will be established, with Borough Gold being established as required. Representatives from the following organisations should be contacted and attend silver meetings:

- Metropolitan Police
- London Fire Brigade
- London Ambulance Service
- The Royal Borough of
Kensington and Chelsea
- Other specialist advisors e.g.:
- PCT
- NHS Trusts
- EA
- EDF
- Thames Water
- Red Cross etc.

Figure 5 demonstrates the escalation process of the incident response to a surface water flooding event once the MAFP has been activated.

8.3 Health and Safety Considerations

Health and safety considerations and information for responders are held by each of the responding agencies. These considerations are not in this plan; responders needing more information should speak to their own agency.

8.4 Flood Specific Responders Roles and Responsibilities in a Surface Water Flooding incident

Each of the coordinating agencies has provided the MAFP plan with their organisations' roles and responsibilities during a surface water flooding incident in Kensington and Chelsea. The table has been compiled from the London Strategic Flood Plan (Section 8) and additional borough specific roles have been added where appropriate. For general roles and responsibilities of responding agencies in an emergency that is not just flood specific please London Emergency Services Liaison Panel's Major Incident Procedures Manual (V.7, 2007). References for both of these external documents can be found in Section 13. of this document.

A (*) in the table denotes where the roles and responsibilities have been taken from the London Strategic Flood Plan.

Organisation	Preplanning	Emergency Response			Recovery
		Minor Flood (medium consequence)	Major Flood (high consequence)	Notes	
The Royal Borough of Kensington and Chelsea	Identifying extent of impact of surface water flooding to the borough and areas most at risk. Producing a Multi Agency Flood Plan (MAFP) with key partners. Highways will ensure gulleys and drains are kept clear	The contingency planning unit (CPU) will be notified by switchboard of calls. The CPU will inform relevant services of possible impacts based on Met office weather warnings. MAFP unlikely to be activated.	MAFP will be activated. The Borough Emergency Control Centre (BECC) will be opened and Business Group Operations Control Points will also be activated. The BECC will coordinate the council response and liaise with other agencies		The Royal Borough will act as lead responder during the recovery phase. This will include collection of flood damaged goods from properties. Housing issues will be handled through the relevant agencies including the Tenant Management Organisation (TMO). Utilities will liaise with
Metropolitan Police Service*	Legal responsibilities as per civil contingencies act. Specifically:-Maintain business continuity awareness. Liaison with environment agency at local and pan- London level on risk assessment/ current planning requirements. Staff training and awareness. Testing and exercising of major incident procedures	Attendance and assessment at scene Assist other agencies by coordination of incident, Especially cordon control Traffic control and diversion Evacuation/invacuation as per evaluation. Assist EA where necessary with warning and informing arrangements.	Generic LESLP response Using objectives as per major incident procedure specifically saving of life Evacuation/invacuation Cordoning Traffic control and diversion Warning and informing	Major incident declaration to be made by blue light or local authority personnel. Major incident procedure –Command and control-provision of gold coordination chair and location Consideration as to Casualty bureau etc Use of gold media cell.	Recovery cell built into command and control protocols
Environment Agency*	Prepare and maintain London Local Flood Warning Plan; Advise on development proposals; Update flood risk maps; Support LRF flood risk assessments; Maintain watercourse capacity; Maintain flood management structures	Issue warnings; Monitor catchment; Operate defences; Support LAs and emergency services	as for minor flood]		Support LAs and community as resources allow; Repair any damaged defences.

Organisation	Preplanning	Emergency Response			Recovery
		Minor Flood (medium consequence)	Major Flood (high consequence)	Notes	
London Fire Brigade					The Royal Borough will act as lead responder during the recovery phase. This will include collection of flood damaged goods from properties. Housing issues will be handled through the relevant agencies including the Tenant Management Organisation (TMO). Utilities will liaise with highways on any infrastructure impacts including repairs.
London Ambulance Service*	Maintain a service wide plan	Act according to the plan	Act cording to the plan	Available via the services own internet	Work with colleague and complete own and multi agency debriefs.

Organisation	Preplanning	Emergency Response			Recovery
		Minor Flood (medium consequence)	Major Flood (high consequence)	Notes	
Chelsea and Westminster Hospital Foundation Trust	Key staff receive NSWWS alerts. No key areas noted to ever flood but internal major incident plan in place with staff training and awareness. Ongoing site maintenance e.g. ensure drains are kept clear.	Minimal disturbance if any	Flood into basement / car park – houses back up electric generators. There is a sump in the basement.	Command and control will open and emergency control centre set up.	Ongoing risk assessment and review of impact on trust core business, area dried out and any damages repaired. Recovery built into major incident plan. Trust would offer mutual aid to any areas affected.
CNWL NHS Foundation Trust	Identify locations in flood risk areas and service capacity affected. Identify, arrange and exercise emergency transfer of care and services.	Mangers of affected services inform on-call senior manager/nurse to be informed who consult/convene IMT as necessary. Care and services to be transferred as necessary and MI plan to be instigated as necessary.	As for minor consequence with consideration to establishing a CNWL recovery group and participating in local/regional recovery working groups.		Prioritise affected buildings to be rehabilitated and services to be restored with consideration to demands for additional services generated by incident.

Organisation	Preplanning	Emergency Response			Recovery
		Minor Flood (medium consequence)	Major Flood (high consequence)	Notes	
Kensington and Chelsea Primary Care Trust					
British Transport Police*	<p>Identify areas policed by the BTP which are susceptible to flooding. This includes railway property and the BTP estate.</p> <p>It should be noted that flooding may affect the BTP ability to respond to locations which are not flooded.</p> <p>Liaison with the environment agency and railway partners to ensure that the necessary warnings are disseminated to railway and police staff.</p> <p>Liaison with the metropolitan police regarding a joint police response using LESLP guidelines.</p> <p>Staff training and awareness testing and exercising major incident procedures.</p>	<p>Liaison with the metropolitan police to determine a joint response under the Benbow scheme.</p> <p>Assessment of the incident to determine the risk to life and property.</p> <p>Assist with the evacuation of premises if necessary paying particular attention to vulnerable people.</p> <p>Assisting to secure premises to prevent damage and or theft.</p>	<p>Liaison with the metropolitan police to determine a joint response under the Benbow scheme.</p> <p>Provide senior officers in respect of any command and control requirement (gold co-ordination group)</p> <p>If necessary provide staff for a gold "transport" or "media" cell.</p> <p>Assessment of the incident to determine the risk to life and property.</p> <p>Assist with the evacuation of premises if necessary paying particular attention to vulnerable people.</p> <p>Assisting to secure premises to prevent damage and or theft.</p>	<p>The BTP in London will work closely with the railway industry, guardian police forces and if necessary the military whilst monitoring the situation reports provided by the environment agency.</p>	<p>The BTP will consider a representative at any recovery management cell.</p> <p>The BTP will work with the railway industry to assist in the implementation of recovery plans.</p>

Organisation	Preplanning	Emergency Response			Recovery
		n/a	n/a	The Met Office Public Weather	
Met Office	The Met Office does not have a borough specific plan but, through the National Severe Weather Warning Service and the Extreme Rainfall Alerts aims to provide some advance warning of rainfall which may lead to flooding. Also the Public Weather Service Advisor can provide additional weather advice to the BECC leading up any potential incident.	n/a	n/a	Please refer to the London Flood Plan for details of EDF Energy's emergency planning arrangements for flooding incidents across London	The Met Office Public Weather Service Advisor can provide weather information to the BECC during the recovery phase as required.
EDF Energy	EDF Energy does not have Borough specific flood plans.	n/a	n/a	n/a	n/a
Port of London Authority	The Port of London Authority is not a responder in a Surface Water Flooding incident	n/a	n/a	n/a	n/a
Royal National Lifeboat Institute	The Royal National Lifeboat Institute is not a responder in a Surface Water Flooding incident				n/a

Organisation	Preplanning	Emergency Response			Recovery
		Minor Flood (medium consequence)	Major Flood (high consequence)	Notes	
British Telecom*	<p>Flood warning received from the Environment Agency and distributed to key players and operational teams in BTW</p> <p>People and operations at risk identified</p> <p>BT holds copies of flood plain information and this can be mapped to BT buildings.</p> <p>BT key operational buildings flood plan activated upon notification from the Environment Agency</p> <p>BT critical access network assets [underground] to be affected identify and plans in place for service re-provision in the event of a major flood</p> <p>BT service controls workforce determine on customer driven service priorities review requirements for blue light service communications</p> <p>BT threat Assessment Review Group [TARG] in place working with Government on increasing threat</p> <p>BT Business Continuity Management structure and Group wide prioritisation put in place with BT to engage all Lines of Business in Impact of flood on service workload scoped to identify impact on wet joints</p>	<p>Minor Flooding - Possibility of water ingress to BT building. People and operations at risk identified following risk assessment</p> <p>Activation of BT Group Incident response process</p> <p>Co-operation with emergency services and EA</p> <p>Provision of anti-flooding measures (e.g. sandbags)</p> <p>Workforce tasked to site if safe to do so</p> <p>Communications to workforce on action to take.</p> <p>Key personnel identified as part of Incident management process</p> <p>Customer impact identified and mitigation plan enabled</p> <p>Local Liaison Managers [LLMs] and Regional managers [RMs] working with Government</p> <p>Regional leads to coordinate on the ground requirements to feed into BT Incident response teams</p> <p>BT Controls team rescheduling work flow and prioritising all customer service requirements</p> <p>BT liveried fleet to be repositioned outside the danger zone where possible</p>	<p>Major Flooding –Water ingress into BT building which threatens BT equipment</p> <p>People and operations at risk identified following risk assessment</p> <p>Activation of BT Group Incident response process</p> <p>Co-operation with emergency services and EA</p> <p>Provision of anti-flooding measures (e.g. sandbags)</p> <p>Workforce tasked to site if safe to do so</p> <p>Forward Control Point Manager appointed/engaged Local Liaison Managers</p> <p>working with Government incident teams feeding back to BT operational teams</p>	<p>Risk assessment vital for People, operations and buildings Information from Government ital from which to base risk assessment</p> <p>Safety of BT people is paramount and may preclude BT teams attending on site.</p> <p>Customer service prioritisation as important part of the process to ensure ongoing communications.</p> <p>All to be managed through activated incident management response</p>	<p>Once safe action may be taken to remove water. Building closed to BT teams.</p> <p>Water tested for contaminants.</p> <p>Remedial action taken if contaminants found.</p> <p>Building is dried out.</p> <p>Structural survey if required.</p> <p>Equipment tested</p> <p>Building re opened.</p> <p>Ongoing review of impact on networks and customer service – regular reports.</p> <p>Incident management level</p> <p>reduced and timescale for Business As Usual identified</p> <p>Ongoing risk assessment</p>

Organisation	Preplanning	Emergency Response			Recovery		
		Minor Flood (medium consequence)	Major Flood (high consequence)	Notes			
		Transport for London* Pre-planning with LA's on rups, transport routes etc. Link with LA's/TfL communications strategy Pre-arranged helpline for staff Review of key premises in flood plain LTCC up to date plans and contacts etc Liaise with LA's/ TfL communications strategy	Activate stewards/ silver command Co-ordinate with 'blue lights' to co-ordinate responses	Activate stewards/ gold command Co-operate with 'blue lights' to co-ordinate responses			
			Red Cross				

8.6 Environmental Impacts

In a Surface Water flooding event a number of environmental issues will occur. The list below gives a brief description as to who is responsible for these issues:

Health protection Agency

The Health protection Agency monitors floods affected communities post a flooding incident in case a threat to human health was to arise. In the UK this is very unlikely. However, the Health protection agency does offer practical advice on post-flooding clean up on their website to reduce the threat to human health through infection or injury. Please see APPENDIX G for more information.

Environment Agency

The Environment Agency offers comprehensive guidance to the public on preparing for and recovering from a flooding including advice on health, safety and environmental issues. For more information please APPENDIX G.

The Royal Borough of Kensington and Chelsea

Environmental Health: will make an assessment of habitable conditions and the safety of electrical installations. They will liaise with contractors to clear worst of debris and to remove accumulations of foul water and contaminated materials. Additionally Environmental health will also liaise with the HPA regarding infection control and pest control issues.

Waste Management: The Council has a duty to continue collecting household waste, or resume waste collection services as quickly as possible. Flood Damage and Waste Clearance on private property are the responsibility of the owner. The Council runs a “Too Big to Bin It” service at a charge but it is likely this would be overwhelmed post flooding.

Animal Carcasses: the Council are responsible for the disposal of animal carcasses found on Council property;

Personal Property: The Council will facilitate recycling and waste collection for flood damaged goods as part of the emergency response and recovery.

Silt: the Council are responsible for clearing silt on public land, but not on private property.

Contaminated Sandbags: The Council will dispose of its own contaminated sandbags, but not privately owned sandbags.

9. VULNERABLE PEOPLE

- The Royal Borough of Kensington and Chelsea's Adult Social Care Service are the lead department for Kensington and Chelsea's welfare issues including the maintenance of a database of vulnerable persons. This can be accessed electronically via Adult Social Care Services.
- There are a number of agencies that retain information on potentially vulnerable persons including: Housing and partner organisations: Health; PCT's, GP's, Pharmacists, Acute Hospitals, Mental Health Trusts; Independent Health Organisations; Utilities companies and Voluntary Sector.
- The Royal Borough of Kensington and Chelsea's Adult Social Care Services work in partnership with PCT and Housing contractor and in the event of the MAFP being activated will be the lead department responsible for identification vulnerable persons within the flood risk area. If it is necessary to share information with other responders, in relation to the welfare of any individuals on the vulnerable person's data base, then this should be authorised.
- APPENDIX D includes a list of all vulnerable facilities that are at risk from surface water flooding, their contact details and the support they may need.

10. EVACUATION AND SHELTERING OF PEOPLE

- Evacuation of the entire area may not be the sensible option and is likely to create more problems than it would resolve given the possible time available to effect the evacuation and numbers of people.
- Premises at risk e.g. basements and ground floor should be evacuated along with vulnerable persons. Anyone else should be encouraged to remain indoors if safe to do so.
- The police will take the decision to evacuate / part-evacuate an area.
- The Council will arrange the opening of reception centres, transport, welfare services for evacuees and, if required, other Council staff to assist with informing residents and businesses. Other responding and voluntary organisations will support the Council with this operation as necessary.
- For details of Rest Centre contact information and location please see Annex 15 (Shelter Plan) of the Council's Contingency Management Plan. If there is a need to contact specific agencies dealing with vulnerable people this can be facilitated through the Borough Emergency Control Centre.
- The Royal Borough of Kensington and Chelsea has a Memorandum of Understanding with the British Red Cross for working in partnership to deal with the initial impact upon the community and assisting with the operation of reception and rest centres.

11. RECOVERY

The purpose of providing recovery support is to assist the affected community towards management of its own recovery. It is recognition that where a community experiences a significant emergency, there is a need to supplement the personal, family and community structures which have been disrupted.

The management of the recovery process will be led by the Royal Borough of Kensington and Chelsea. The recovery phase of a flooding incident must begin as soon as practicably possible and run along side flood response operations. Following the end of the emergency response phase to a flooding incident, the Council will decide when it is appropriate to stand down.

Recovery is more than simply the replacement of what has been destroyed and the rehabilitation of those affected. It is a complex social and developmental process rather than just a remedial process. The manner in which recovery processes are undertaken is critical to their success.

11.1 Common Issues following flooding

Common issues following flooding include:

- Clean up and waste disposal;
- Repairs to public assets/infrastructure – schools;
- Buildings; roads etc.
- Restoration of power, communications and water;
- Domestic and business insurance issues;
- Displaced businesses;
- Political involvement and implications;
- Humanitarian assistance needs, including; homeless; displaced residents; psychological impacts
- Communication to the communities and affected groups – including help lines

- Business continuity of all category 1 and 2 organisations.

If established, the regional strategic co-ordinating group (SCG) may form a regional recovery group, who will set the standard strategic priorities which will support and inform the Royal Borough of Kensington and Chelsea recovery co-ordinating group.

The Royal Borough of Kensington and Chelsea will take the lead on recovery after a flooding incident and will address issues including:

- Clean up and waste disposal
- Repairs to public assets/infrastructure
- Restoration of power, communications and water
- Domestic and business insurance issues
- Displaced businesses
- Humanitarian assistance needs including homeless/ displaced residents and psychological impacts

11.2 Formal Handover

In the event of surface water flooding scenario in the borough the Royal Borough of Kensington and Chelsea Council will have responsibility throughout the response and recovery stages and will not officially handover responsibility to another agency.

12. TRAINING AND EXERCISING

12.1 Training

It is essential to train responding officers in their roles and responsibilities before they need to use the plan during an exercise or an actual event. Training should take place at appropriate intervals to maintain awareness and to inform responding officers of any amendments.

12.2 Exercising

Exercising the plan and responding officers will identify areas for improvement and ensure that staff are able to deal with a flooding incident, should one occur. Exercises aim to validate the plan, train staff and test procedures.

Such exercises may be internal, or tied into other multi-agency exercises to confirm roles and responsibilities of responding departments / agencies as well as the adequacy of communications, resources and equipment.

It is recommended that exercising this plan at operational and strategic levels is undertaken whenever there is a major revision or at least every three years.

13. REFERENCES

- Major Incident Procedures Manual, London Emergency Services Liaison Panel, Eight Edition, 2012
www.leslp.gov.uk
- The Royal Borough of Kensington and Chelsea Contingency Management Plan, Issue Six, January 2013
- National Risk Register for Civil Emergencies, Cabinet Office, 2012
<http://www.cabinetoffice.gov.uk/resource-library/national-risk-register>
- Kensington and Chelsea Borough Risk Register, 2012
- London Evacuation Plan, London Regional Resilience Forum (In development)
- Area Surface Water Flooding Maps Guidance Notes, Environment Agency, Version 2, 2009
- The Royal Borough of Kensington and Chelsea Strategic Flood Risk Assessment
<http://www.rbkc.gov.uk/planningandconservation/planningpolicy/localdevelopmentframework/draftstrategicfloodrisk.aspx>

APPENDICES

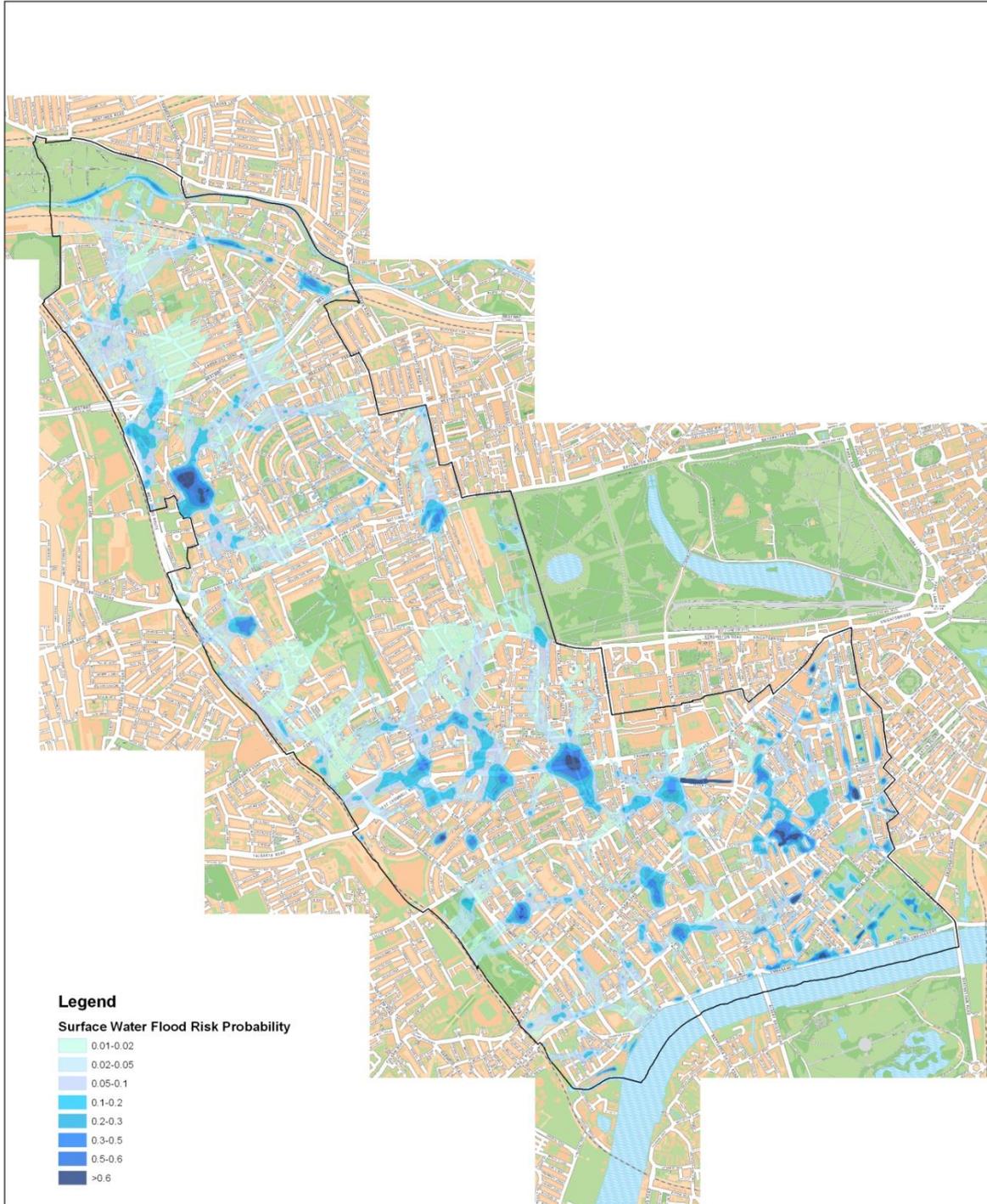
APPENDIX A – Key Emergency Contacts

Organisation	Name	Phone Number
The Royal Borough of Kensington and Chelsea	Contact Centre Mon – Fri 0830 to 1730	020 7361 3000
	Out of Hours Service	020 7361 3000 option 4
Environment Agency	Floodline	0845 988 1188
	Incident Hotline (Freephone, 24/7) to report an incident	0800 807060
	General Enquiries Mon-Fri, 8am to 6pm	03708 506 506
Utilities	Gas – National Grid	0800 111 999
	Electricity - UK Power Networks	0800 028 0247
	Thames Water	0800 714 614
Hospitals	Chelsea and Westminster	020 8746 8000
	Royal Marsden	020 7352 8171
	Royal Brompton	020 7352 8121
	St Charles	020 8969 2488
Health Protection Agency	Emergency Response	01980 612100
	Regional Office	020 8327 7181
	Central Office	020 7811 7000
Voluntary Sector	Red Cross	0844 871 11 11
	St John Ambulance	020 7324 4000
	Salvation Army	020 7367 4500
Metropolitan Police Service	Police Stations in Kensington and Chelsea	101

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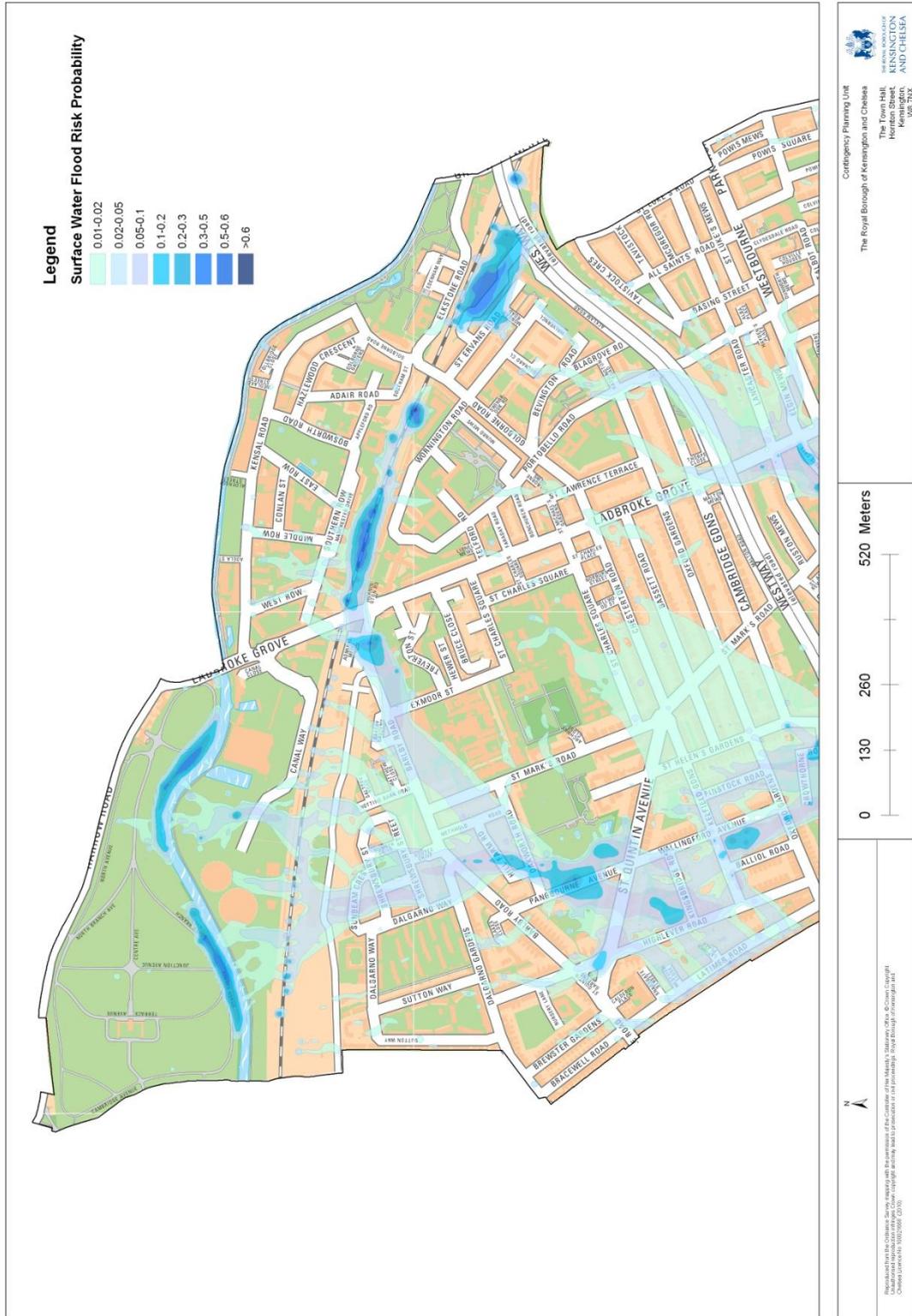
APPENDIX B – SURFACE WATER FLOODING MAPS

**Map 1: Surface Water Flooding Risk Zones in
The Royal Borough of Kensington and Chelsea**

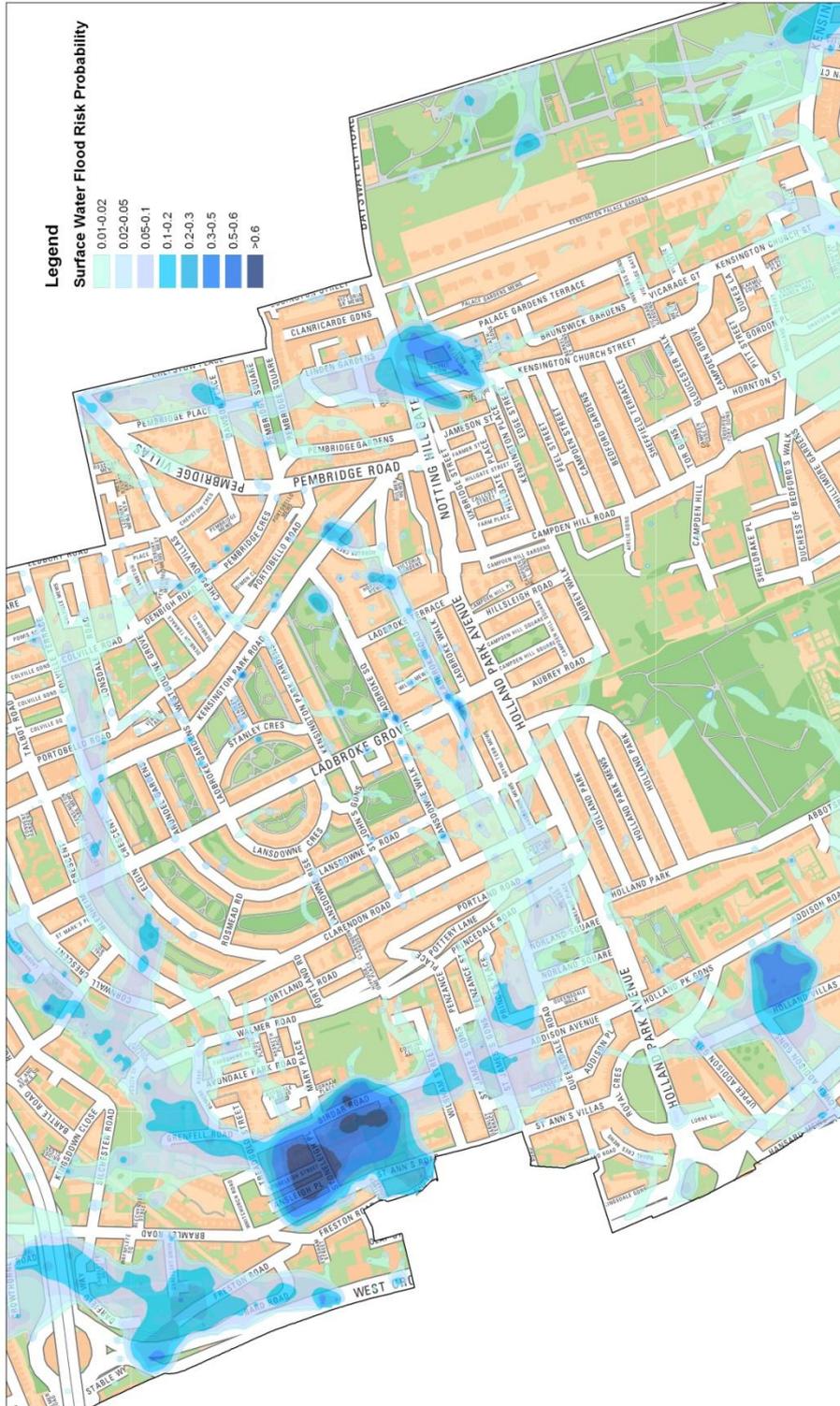


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Map 2: Risk of Surface Water Flooding in the North of The Royal Borough of Kensington and Chelsea



Map 3: Risk of Surface Water Flooding in the Centre of The Royal Borough of Kensington and Chelsea



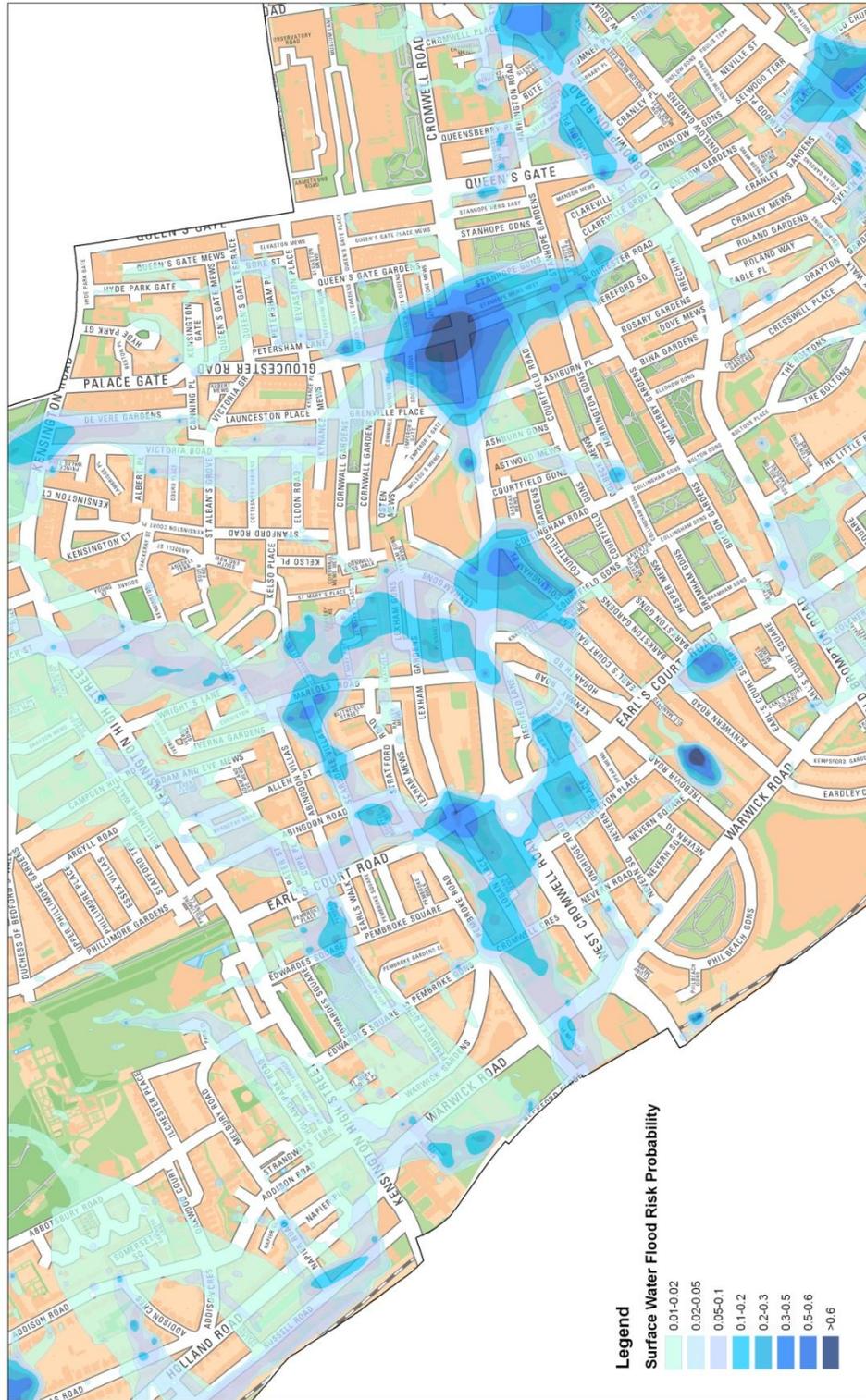
Contingency Planning Unit
The Royal Borough of Kensington and Chelsea
The Town Hall
Hornton Street
KENSINGTON
W8 7JX

0 130 260 520 Meters

North Arrow

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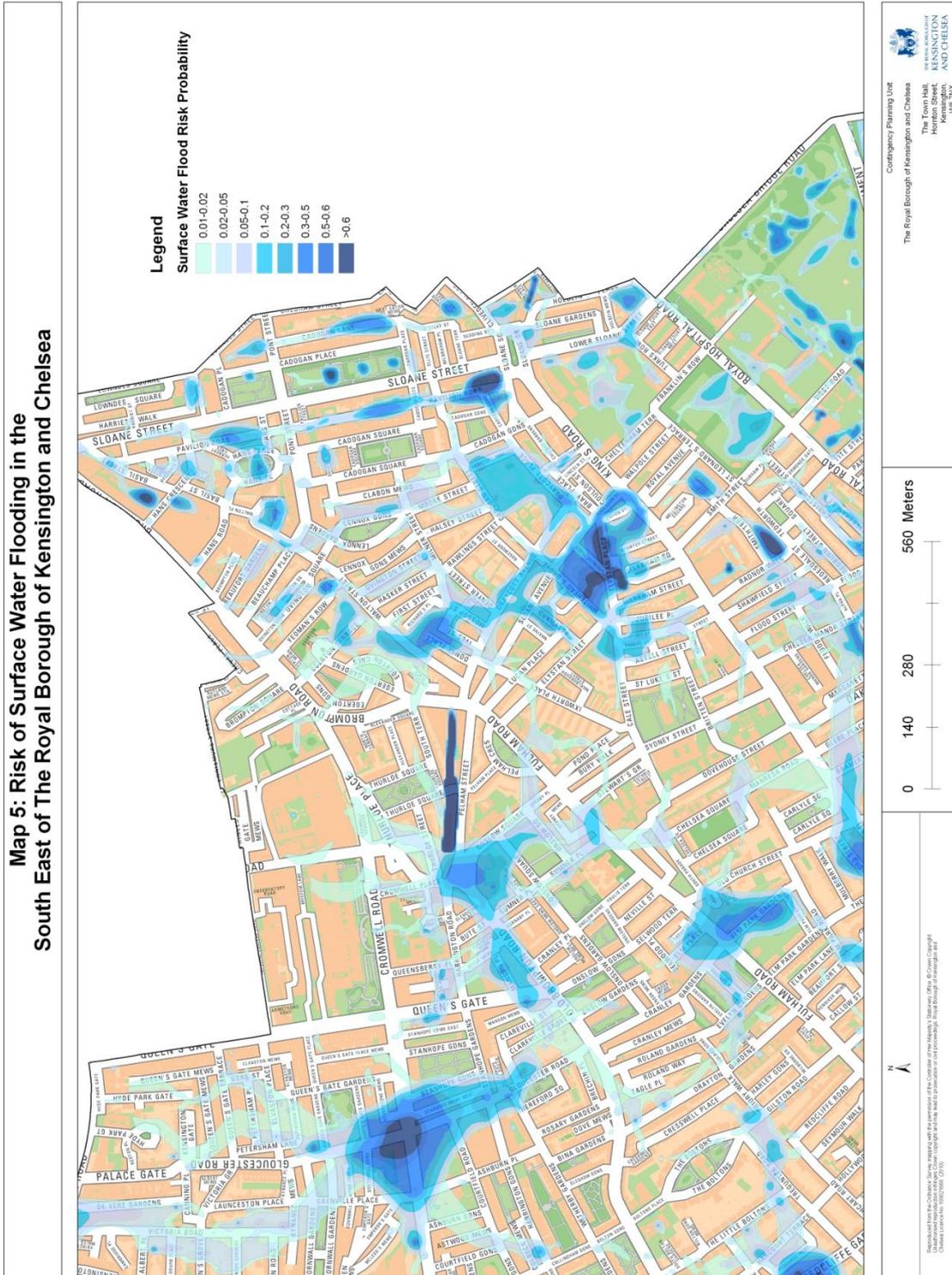
Map 4: Risk of Surface Water Flooding in the Centre of The Royal Borough of Kensington and Chelsea

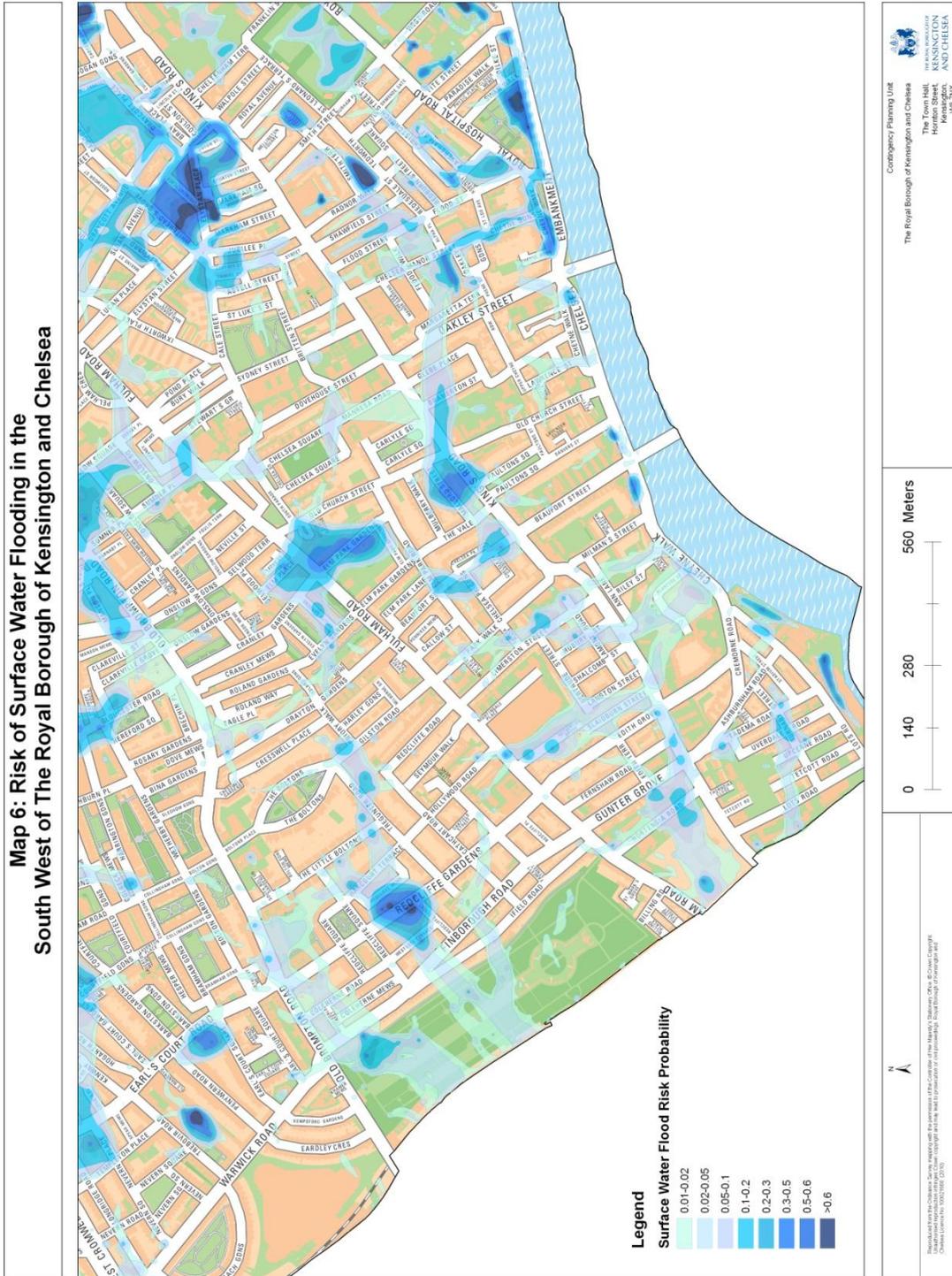


Contingency Planning Unit
The Royal Borough of Kensington and Chelsea
The Town Hall
Hornton Street,
Kensington,
London W8 5TH

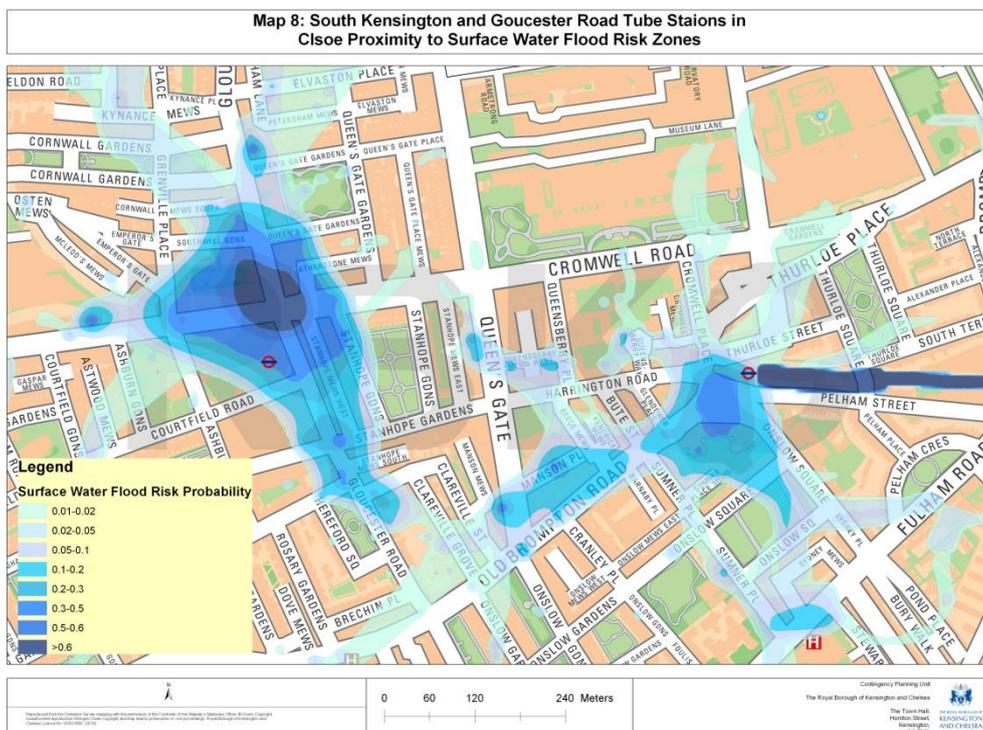
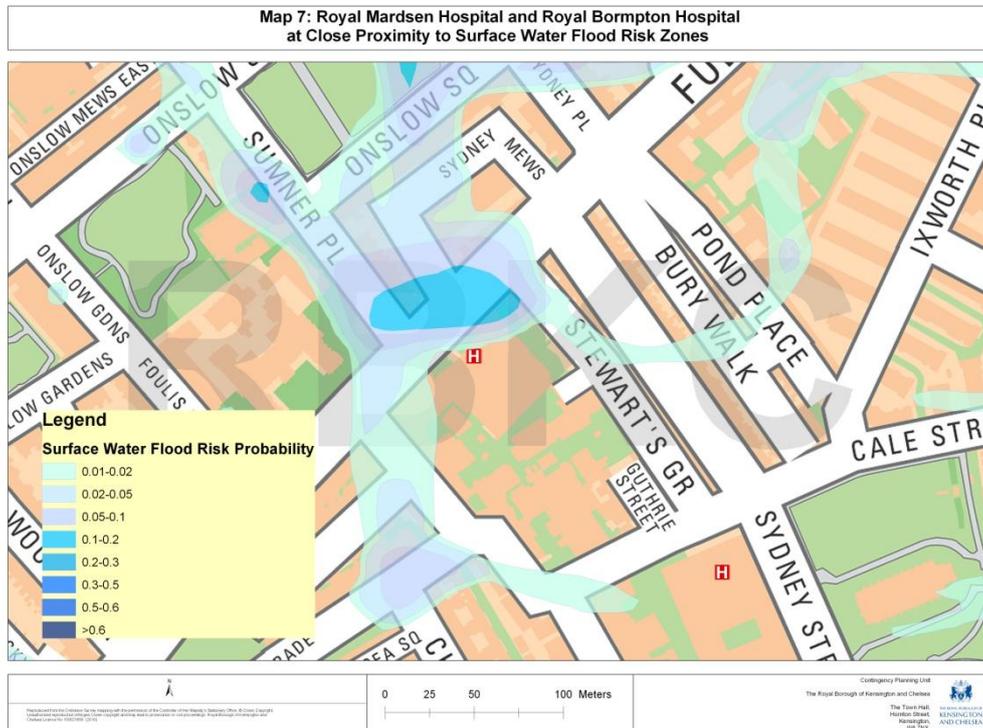
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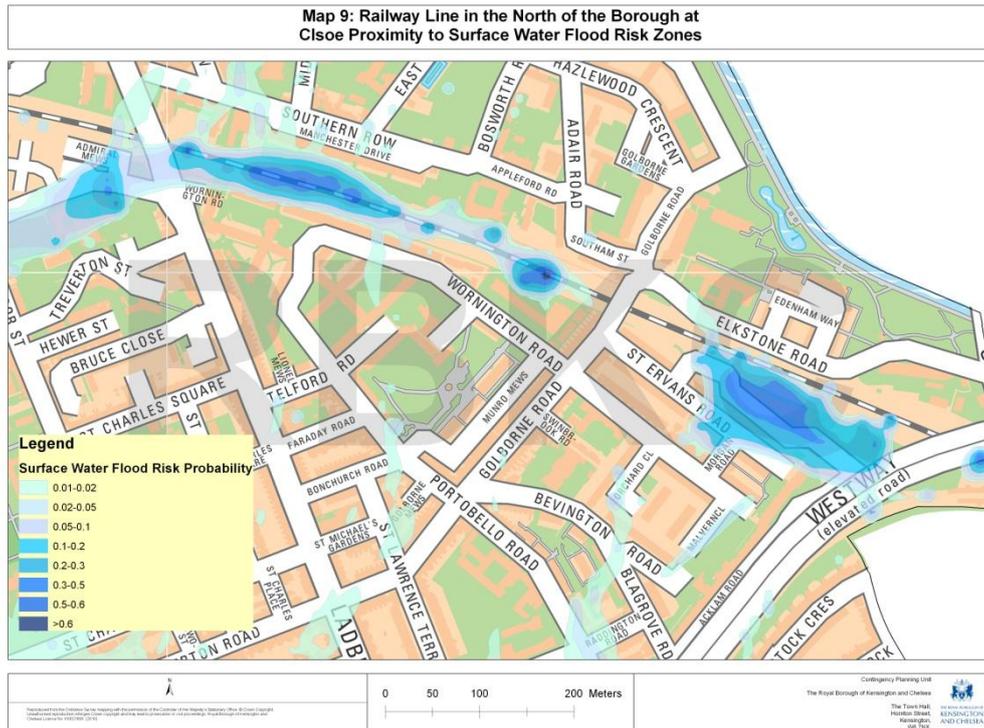
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APPENDIX C – MAPS OF KEY INFRASTRUCTURE SITES AT RISK FROM SURFACE WATER FLOODING





APPENDIX D - VULNERABLE PEOPLE, VULNERABLE FACILITIES AND VULNERABLE KEY INFRASTRUCTURE

Log Sheet for Vulnerable People, Vulnerable Facilities and Vulnerable key infrastructure at risk from Surface Water Flooding:

Type	Facilities	Address	No.	Support needed in emergency	Communication Issues	Comments	Risk Rating
Transport	Gloucester Road Underground Station	Gloucester Road London SW7 4SF	0800 616 031	Support with redirecting underground passengers, maintaining			High
	South Kensington Underground Station	South Kensington LONDON SW7 2NB	0800 616 031				High
	Earls Court Train Station	Warwick Road London SW5 9SY	0800 616 031				Moderate
Health Facilities	High Street Kensington Underground Station	Kensington High Street London W8 5SA	0800 616 031				Low-Moderate
	Kensington Olympia Underground Station	Olympia Way London W14 0NE	0845 602 4277 0121 634 2040				Low-Moderate
	Royal Marsden Hospital	Fulham Road London SW3 6JJ	020 7352 8171				Moderate

Type	Facilities	Address	No.	Support needed in emergency	Communicati on Issues	Comments	Risk Rating
Police	Chelsea Police Station	2 Lucan Place LONDON SW3 3PB	0300 123 1212				Moderate
	Notting Hill Gate Police Station	99 - 101 Ladbroke Road LONDON W11 3PL	0300 123 1212				Moderate
	Kensington Police Station	72 Earl's Court Road LONDON W8 6EQ	0300 123 1212				Low- Moderate
Schools	St. Clement and St James CE Primary School	Penzance Place, London W11 4PG	020 7603 9225	No support necessary unless extenuating circumstances arise: Any school impacted to be closed and will be reopened when appropriate or on the advice of the emergency services.			High

Type	Facilities	Address	No.	Support needed in emergency	Communication Issues	Comments	Risk Rating
Schools	Avondale Park Primary School	Sidar Road, London W11 4EE	020 7727 7727	No support necessary unless extenuating circumstances arise: Any school impacted to be closed and will be reopened when appropriate or on the advice of the emergency services.			High
	The Cardinal Vaughan Memorial RC School	89 Addison Road, London, W14 8BZ	020 7603 8478				Moderate
	St Barnabas and St Philip's CE Primary	Pembroke Mews, 58 Earls Court Road, London, W8 6EJ	020 7937 9599				Moderate
	Marlborough Primary School	Draycott Avenue Chelsea London SW3 3AP	020 7589 8553				Moderate
	St Thomas More Language College	Cadogan Street, London, SW3 2QS					Moderate

Type	Facilities	Address	No.	Support needed in emergency	Communication Issues	Comments	Risk Rating
	St Joseph RC Primary School	Cadogan Street LONDON SW3 2QT	020 7589 2438				Moderate
	St Mary Abbots CE Primary School	2 Kensington Church Court, London, W8 4SP	020 7937 0740				Low- Moderate
Mental Health Sites	Violet Melchett Family Centre	Ground/ 1 st Floor 30, Fleet Street London	020 7352 1512				Low- Moderate
	Pall Mall Centre for Mental Health	150 Barby Road North Kensington W10 6BS	020 8206 6900				Low- Moderate
	Parkside Clinic	63-65 Lancaster Road London W11 1QG	020 8383 6123				Low- Moderate

Type	Facilities	Address	No.	Support needed in emergency	Communication Issues	Comments	Risk Rating
Social Care Sites	Latymer Children Centre	154 Freston Rd London, W10 6TR	020 89699327	As the building is approximately 10 feet above the ground level the building should not be affected with flooding. However, to get into the building could be a difficulty and we would either need the water pumped away or we would use another children's centre or the Harrow Club in an extreme emergency.	This recommendation is already on our contingency planning programme		Low- Moderate
	St Marks Children's Home	3 St Marks Close, Kensington And Chelsea, London W11 1TZ	0207 221 4298	The Children's home has its own emergency plans in place that cover flooding			Low- Moderate

Type	Facilities	Address	No.	Support needed in emergency	Communication Issues	Comments	Risk Rating
Council Offices	Westway Information Centre	140 Ladbroke Grove LONDON W10 5ND	020 7598 4401	The Royal Borough of Kensington and Chelsea sites have their own emergency and business continuity plans including evacuating and relocation which should suffice in a flooding scenario without the aid of additional emergency services unless extenuating circumstances arise.			Low-Moderate
	Childrens Resource Team	Ground Floor. 36B Oxford Garden, London, W10 5UQ	020 7598 4640				Low-Moderate
	Kensington Town Hall	The Town Hall, Hornton Street, London W8 7NX	020 7361 2220				Low-Moderate

Type	Facilities	Address	No.	Support needed in emergency	Communication Issues	Comments	Risk Rating
	Childrens Disability Team	Ground Floor. 36B Oxford Garden, London, W10 5UQ	020 7598 4640				Low- Moderate
	Earls Court Central Social Work Office	282 Earls Court Road, London, SW5 9AS	020 7598 4964				Moderate
	Kensington Recruitment	2 BEATRICE PLACE, LONDON, W8 5LP	020 7854 5960				Moderate

APPENDIX E – ROADS AT RISK FROM SURFACE WATER FLOODING

Streets at High Risk from Surface Water in The Royal Borough of Kensington and Chelsea:

- Addison Gardens
- Aklam Road
- Colling Place
- Cromwell Road
- Cromwell Road
- Donne Place
- Elm Park Gardens
- Elystan Place
- Gloucester Road
- Kings Road
- Latimer Road
- Mallard Street
- North of Palace Garden Terrace
- North West Corner of Sloane Square
- Numerous spots along Chelsea Embankment
- Old Church Street
- Pembroke Road
- Recliffe Street
- Redcliffe Gardens
- Sirdar Road
- Smith Terrace
- Stonleigh Place
- Tedworth Street
- Walton Street

APPENDIX F – LONDON FIRE BRIGADE CALL LOG 20TH JULY 2007

Roads in The Royal Borough of Kensington and Chelsea which the Fire Brigade attended more than once due to flooding on 20th July 2007:

() = the number of incidents in the road that the fire brigade actually attended

- Bramley Road (2)
- Chamberlayne Road (3)
- Church Road (3)
- Colville Square (3)
- Earls Court Road (2)
- Elgin Crescent (3)
- Furness Road (2)
- Garnet Road (2)
- Harrow Road (3)
- Kensington High Street
(5)
- Ladbroke Grove (7)
- Longridge Road (2)
- Moscow Road (2)
- Portobello Road (3)
- Queensdale Road (2)
- Saint Anns Villas (3)
- Saint Marks Place (2)
- Warwick Road (2)
- Westbourne Grove (10)

APPENDIX G – PUBLIC ADVICE AND GUIDANCE

The Royal Borough of Kensington and Chelsea recommend that the public make use of the Environment Agency and the Health Protection Agency's advice.

Environment Agency:

The Environment Agency has various leaflets of advice:

- Preparing for a Flood
- During a Flood
- After a Flood

These leaflets can be found on the Environment Agencies website, in PDF format and in an audio version.

The Environment Agency also provides information on flooding for businesses

<http://www.environment-agency.gov.uk/business/topics/flooding/default.aspx>

Health Protection Agency (HPA):

The HPA has a list of Frequently Asked Questions available on its website. These can be found at:

http://www.hpa.org.uk/webw/HPAweb&HPAwebPrinterFriendly/HPAweb_C/1213686561005?p=1213686561915

Met Office:

The Met Office administer severe weather warnings via email alerts which can be signed up to through their website

http://www.metoffice.gov.uk/weather/uk/uk_forecast_warnings.html

APPENDIX H – SANDBAG POLICY

In keeping with the strategic aim of preventing large scale flooding to the borough, key installations and public infrastructure priority will initially be given to:

- Temporary works as identified by responding agencies to prevent flooding to large areas of the city affecting both residential and commercial properties.
- Repairs to existing flood defences
- Key installations: Utility stations, hospitals, schools, communication centres, council buildings (i.e. residential homes) and operational emergency services premises.
- Critical transportation routes and other essential roads.

Situations covered by this Policy

This policy is intended to counter the threat from overtopping of the River Thames, breaches of permanent or temporary defences, or areas of surface water flooding.

Public Supplies

The Royal Borough of Kensington and Chelsea will not provide sandbags to the public if a Surface Water Flooding incident occurs.

Building a Sandbag Wall:

It is essential to fill the sandbags correctly, they must not be over-filled. Sandbag walls should never be constructed with a vertical face, but should be laid in a pyramid shape with never less than two rows at the top of the pyramid.

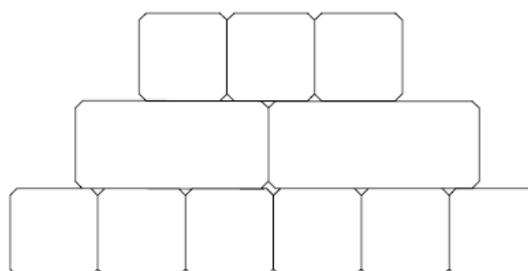


Figure L1 - Sandbag wall cross-section showing pyramid formation

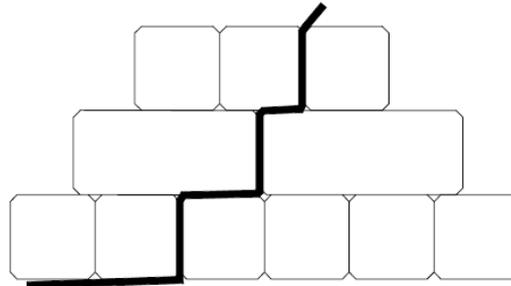


Figure L2 – Location of plastic waterproofing sheeting

Sandbag walls are not waterproof, but waterproofing can be achieved using plastic sheeting which is threaded through the layers. Avoid placing any of the outside wall in the direction of the water.