

LONDON BOROUGH OF TOWER HAMLETS

Multi-Agency Flood Plan v1.0

September 2017

Official



Document Information

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Author	Environment Agency and Tower Hamlets Borough Resilience Forum
Related Documents	<p>The multi-agency flood plan should be used in conjunction with the latest versions of the following documents:</p> <ul style="list-style-type: none"> • <i>The London Risk Register</i> • <i>The Tower Hamlets Risk Register</i> • <i>Tower Hamlets Resilience Forum partnership contacts list</i> <p>Following plans are available from London Resilience Team https://www.london.gov.uk/about-us/organisations-we-work/london-prepared/planninghttps://www.london.gov.uk/about-us/organisations-we-work/london-prepared/planning-emergencies-capital - acc-i-40778</p> <ul style="list-style-type: none"> • London Strategic Coordination Protocol • London Command and Control Protocols • London Strategic Flood Framework • Regional flood Risk Appraisal
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Abbreviations

AEP	Annual Exceedance Probability
BRF	Borough Resilience Forum
EA	Environment Agency
FFC	Flood Forecasting Centre
FGS	Flood Guidance Statement
FWS	Flood Warning Service
LBTH	London Borough of Tower Hamlets
LESLP	London Emergency Services Liaison Panel
MLWL	Maximum Likely Water Level
NPPF	National Planning Policy Framework
NSWWS	National Severe Weather Warning System
SCG	Strategic Coordinating Group (Gold)
TCG	Tactical Coordinating Group (Silver)
TTD	Thames Tidal Defences

Glossary

Annual Exceedance Probability	In flood risk terms, the AEP represents the probability of a particular return period event occurring in any given year. (e.g. 1 in 100 year return period event = 1% AEP – there is a 1% chance every year that this event will take place).
Flood Zone	A geographic area within which the flood risk is in a particular range as defined within NPPF and its Practice Guidance.
Flood Zone 1	Land where flooding from rivers and the sea is very unlikely. There is less than a 0.1 per cent (1 in 1000) chance of flooding occurring each year.
Flood Zone 2	Land which has between a one in 100 and one in 1000 annual probability (chance) of river flooding (1% -0.1%); or between a one in 200 and 1 in 1000 annual probability (chance) of sea flooding (0.5%-0.1%).
Flood Zone 3	Land which has a greater than one in 100 annual probability (chance) of river flooding (>1%); or greater than one in 200 annual probability (chance) of sea flooding (>0.5%).

Flood Warning Area	Areas split into communities that can receive flood warnings. At time of writing areas extend to the maximum extent of flood zone 2, irrespective of defences.
Groundwater Flooding	Flooding from groundwater can happen when the level of water within the rock or soil that makes up the land surface (known as the water table) rises.
Main River	A watercourse designated on a statutory map of Main Rivers, maintained by DEFRA, on which the Environment Agency has permissive powers to construct and maintain flood defences.
Ordinary Watercourse	All rivers, streams, ditches, drains, cuts, dykes, sluices, sewers (other than public sewers) and passages through which water flows which do not form part of a Main River. Local authorities and, where relevant Internal Drainage Boards, have similar permissive powers on Ordinary Watercourses as the Environment Agency has on Main Rivers.
Return Period	The long-term average period between events of a given magnitude which have the same annual exceedance probability of occurring.
Reservoir	A large raised structure, raised lake or other area capable of storing at least 25,000 cubic metres of water above natural ground level, created artificially or enlarged. This is defined by the Reservoirs Act, 1975.
Surface Water Flooding	Where rainfall exceeds natural and high drainage capacity.
Tidal surge	A local high rise in sea level caused by climatic conditions, creating wind and low atmospheric pressure. Tidal flooding is of greatest risk when tidal surges combine with high tides.

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1.0 Introduction

1.1 Flooding context

With over 36695 properties within the borough at risk of flooding (almost 30% of the total number of properties), Tower Hamlets has tens of thousands of residents at risk of losing their homes and businesses.

Following the significant flooding events seen in the UK in 2007, local authorities were asked to develop Multi Agency Flood Plans to ensure that the responding agencies within each borough had a plan to tackle the specific and bespoke impacts that a flood incident would have their respective boroughs. This plan has been in consultation with members of the Tower Hamlets Borough Resilience Forum.

This plan covers a borough-based response; however floods will not have regard for political and administrative boundaries. As such this plan must be shared and liaison arrangements made with agencies from neighbouring resilience fora.

1.2 Document Aim

This document details the multi-agency activation, response and recovery of partners involved in the response to a flooding incident within the borough of Tower Hamlets.

1.3 Document Objectives

- To provide information on the warnings that responding agencies can receive
- Identifies the trigger levels for a multi-agency response to a flood event
- Details the trigger points for the plan to be activated
- Identifies the locations of further information on the roles and responsibilities of responding partners
- Provide information to identify the wider impact of borough flooding events
- Support the Environment Agency (EA) in the dissemination of warnings to communities at flood risk.

1.4 Document Scope

This plan gives an overview of the flood risk in the London Borough of Tower Hamlets. The plan also includes the methods of communicating this risk to residents.

The plan suggests the groundwork and preparation work that partner organisations should complete.

The plan defines where a flooding incident meets the trigger to require a multi-agency response. This plan links to existing generic emergency plans, the LESLP manual and the London Flood Response Strategic Plan, and, in due course the local strategic Command & Control document.

Detailed plans (such as activation, shelter or evacuation) and emergency contact lists are the responsibility of the individual partner organisations.

In the event of local flooding that is not deemed significant to activate the London wide flood response, the local responding partners may deem it necessary to activate local arrangements (such as borough wide discussion and implementation of LBTH partner flood plans).

2.0 The location

The London Borough of Tower Hamlets covers an area of approximately 20 km² and is located to the East of the City of London, between the London Borough of Newham to the east and the London Borough of Hackney to the north. The River Thames runs along the southern boundary of the Borough for over 10km, and the River Lee flows from north to south along the extent of the eastern boundary, before discharging into the River Thames.

Tower Hamlets is heavily urbanised, with a variety of commercial, residential and industrial land uses. The Borough accommodates a rapidly growing population, estimated at 304,900, (as of June 2016 Office for national statistics), with almost 37,000 properties located within areas defined as being at risk of flooding.

The financial centre of Canary Wharf is located on the Isle of Dogs and the historic Tower of London is situated in the south west corner of the Borough. A network of strategic transport infrastructure traverses the Borough, including the Docklands Light Railway, London Underground and Overground, Network Rail and major road routes controlled by Transport for London (TfL).

The water utility provider is Thames Water Utilities Ltd.

3.0 Flood Risk in Tower Hamlets

The Borough is bounded to the north by the River Thames and to the East by the River Lee. (see Appendix A1). Whilst the tidal Thames poses a potential risk of flooding to properties within the Borough, (see Appendix A2) the Thames Tidal Defences (TTD) provide substantial protection from this source, up to the 1 in 1000-year event (0.1% AEP). (see table 1 below for definition of risk and Appendix A3 for location of defences).

This protection is effective provided the Thames Barrier is operated to protect against storm surges from the North Sea and that there is sufficient storage behind the barrier to accommodate the River Thames when it is shut during extreme fluvial events at high tides. The River Lee is also defended; however, small areas of the Borough are at actual risk of fluvial flooding from this source, for events above a 1 in 50-year return period (2% AEP). (see Appendix A4).

A potential risk of flooding from other (non-river related) sources exists throughout the Borough, including sewer surcharge and surface water flooding as a result of heavy rainfall. This is known to be an issue within the borough in particular, the Isle of Dogs.

Areas of the Borough are also thought to be susceptible to elevated groundwater levels, which may additionally interact with and exacerbate other sources of flood risk. It is expected that changing climate patterns will have a substantial impact on the level of flood risk from all sources within the Borough.

3.1 Flood Zones

The Environment Agency has undertaken national mapping of areas at risk of flooding. Three flood zones have been defined and are detailed in the table below.

Flood Zone	Risk of Flooding	Definition
1	Little or no risk	At risk from flood event greater than the 1 in 1000-year event (greater than 0.1% annual probability of flooding each year)
2	Moderate	At risk from a tidal flood event between the 1 in 200 and 1 in 1000-year event (between 0.5% and 0.1% annual probability of flooding each year), or a fluvial flood event between the 1 in 100 and 1 in 1000-year event (between 1% and 0.1% Annual probability of flooding each year).
3	High	At risk from a tidal flood event less than or equal to the 1 in 200-year event (greater than 0.5% annual probability of flooding each year), or a fluvial flood event less than or equal to the 1 in 100-year event (greater than 1% annual probability of flooding each year).

3.2 River network

Both the River Thames and the river Lee are main rivers, as defined by the Environment Agency.

The River Lee originates near Luton, flowing through Bedfordshire, Hertfordshire and London in a south easterly direction, draining a catchment area of approximately 1400km². It is a part of the Bow Back River System and has a connection to a network of canals which run through the Borough. These include the below watercourses which are artificial and managed by the Canal and Rivers Trust.

- The Limehouse Cut and the River Lea Navigation Canal, which are designated as Main Rivers
- The Grand Union Canal, which flows from the London Borough of Hackney and bisects the Borough from north to south, discharging in the Limehouse Basin
- Hertford Union Canal, which flows in an east-westerly direction between the River Lee and the Grand Union Canal

The River Network within the Borough is illustrated Appendix A1.

3.3 Historic Flooding

Information on known and recorded historic flooding events within the Tower Hamlets is shown in Appendix A5 and broadly summarised in sections 3.2.1 and 3.2.2.

However historical information of flooding is limited and should not be interpreted as indicating a low probability of future flooding. Conversely, some of the recorded historical events might have been as a result of issues that have now been addressed and, therefore, an indication of historical flooding affecting a particular location does not necessarily mean that the locality affected remains prone to flooding.

3.3.1 Historic Flooding from Tidal Thames

Severe flooding affected central London in 1928 when the defences along the River Thames were breached, causing inundation of much of the Isle of Dogs and the other areas of the Thames frontage.

A further notable historic tidal flooding event occurred in 1953, when a storm surge impacted the east coast of the UK, causing high tidal levels to breach flood defences and resulting in extensive flooding across London and the Thames Estuary. Within Tower Hamlets, the event predominantly impacted the confluence of the River Lee and River Thames, causing flooding in the Docklands area.

3.3.2 Historic Flooding from Rivers

The Borough was severely impacted by flooding in March 1947, when a combination of rainfall and snowmelt caused a rise in water levels within the River Lee and its tributaries. The subsequent flooding inundated areas across the East India Docks Basin, South Bromley and Canning Town.

Following this event, defences were implemented along the Lower Lea. Since this time, flooding has been largely confined to the upper catchment and has not have a significant impact on the Borough.

3.4 Flood Risk from all Sources

3.4.1 Tidal Flood Risk

The primary flood risk mechanisms associated with the Thames are:

- Daily tidal fluctuations
- Surge Tides
- Fluvial mechanisms due to prolonged rainfall within the upper reaches of the Thames catchment during times of high tide cycle

The greatest overall flood risk from the Thames occurs when tidal surges coincide with particularly high tide levels and/or fluvial flooding in the upper reaches of the catchment. See section 3.3.2 on Tidal Defences for more information regarding risk from the Thames

3.4.2 Tidal Flood Defences

The risk of flooding within the borough from both tidal and fluvial is shown in Appendix A2, this map uses the flood zones referred to in Table 1 (section 3) Flood zones are shown as undefended, so do not take into account the influence of defences, such as the Thames barrier and walls. Therefore the actual risk is lower than shown, under normal circumstances. The Thames Tidal Defence system, including the Thames Barrier and Thames River Walls provide the Borough with a significant standard of protection against tidal flooding, up to the 1 in 1000 year event (0.1% AEP). Areas protected by defences are shown in Appendix A3.

3.4.3 Breaching of Tidal Flood Defences

Whilst defences provide a significant standard of protection to the Borough, it is essential to appreciate that they are engineered structures which can only protect to a certain point, may malfunction and have a finite design life.

There will always therefore be a residual risk of flooding from this source, associated with overtopping (during a larger event than defences have been planned for) or breach of the defences, due to structural or operational failure. Modelling has been undertaken to determine the extent of flooding in key locations during the Maximum Likely Water Level (MLWL) the outputs can be seen in Appendix A6.

3.4.4 Flood Risk from Rivers

The River Lee system includes the River Lee Navigation Channel, and is also hydraulically connected to the Limehouse Cut. The River Lee is additionally tidally influenced along much of its extent within Tower Hamlets.

Aside from the River Lee system, there are no other watercourses within the Borough known to present a risk of fluvial flooding. It should be noted that limited information is available on the level of flood risk associated with any ordinary watercourses (canals). However, there is no known flood history associated with these sources, and the perceived risk is therefore considered to be low.

The risk of flooding from Rivers and the Sea across the Borough is shown in Appendix A2. This map depicts the main areas at risk of flooding from the River Lee, according to the Flood Zones, as located in the north-eastern corner of the Borough, close to the border with Hackney and Newham. This is due to overtopping of the banks of the River Lee Navigation Canal. The highest risk of flooding is shown in Appendix A4.

3.5 Flooding from other sources

3.5.1 Flooding from surface water

Flooding from surface water occurs when high intensity rainfall generates runoff which flows over the surface of the ground and ponds in low lying areas. Appendix A7 shows the risk of this type of flooding in the area.

3.5.2 Flooding from Canals

There are a number of canals present within Tower Hamlets, which are owned and operated by the Canal and Rivers Trust, including Regents / Grand Union Canal, Hertford Union Canal, Limehouse Cut and the River Lee Navigation Canal.

Whilst the Limehouse Cut and Lee Navigation are owned and maintained by the Canal and Rivers Trust; they are also classified as Main Rivers and hydraulically influenced by the River Lee system.

There are many docks and basins present across Tower Hamlets. These are predominately connected to the River Thames by lock gates (listed below) these structures are all maintained by the Canals and Rivers Trust. It is understood that there is a very low risk of flooding associated with these structures, provided active management and regular maintenance is undertaken. They are listed in the plan should any issues arise from them.

- St Katherine Docks, Wapping
- Shadwell Basin, Shadwell
- Limehouse Basin, Limehouse
- West India Docks, Isle of Dogs
- Poplar Dock and Blackwall Basin, Isle of Dogs
- Millwall Docks (outer and inner), Isle of Dogs
- East India Docks, Blackwall

3.5.3 Reservoirs

There are no reservoirs located within Tower Hamlets; however, areas of the Borough are shown to be within the extent of flooding anticipated by breach of the Willing Girling, King George V and Lockwood Reservoirs, to the North of the Borough. Areas at risk from reservoir flooding are in Appendix A8.

4.0 Warnings

4.1 Warning Context

There is an established warning system available for main river flooding, however, warnings for other sources of flooding are limited. The following section details each service and the information it provides and to whom.

4.2 Meteorological Office – National Severe Weather Warning System

Warnings from the Met Office are depicted on their website using a traffic light type system on maps of the UK.

GREEN	NO SEVERE WEATHER EXPECTED.
YELLOW	BE AWARE. There is a moderate risk of severe or a low risk of extreme weather occurring. Remain alert and ensure you access the latest weather forecast.
AMBER	BE PREPARED. There is a high risk of severe or a moderate risk of extreme weather occurring. Remain vigilant and ensure you access the latest weather forecast. Take precautions where possible.
RED	TAKE ACTION. There is a high risk of an extreme weather event occurring. Remain extra vigilant and ensure you access the latest weather forecast. Follow orders and any advice given by authorities under all circumstances and be prepared for extraordinary measures.

For more detailed actions in responding to flooding please see the section Actions Roles and Responsibilities.

4.3 EA and Met Office - Flood guidance statements

The joint EA/Met Office **Flood Forecasting Centre (FFC)** is responsible for issuing weather warnings that relate to conditions that could cause flooding.

It produces a Flood Guidance Statement (FGS) which provides a flood risk assessment for Category 1 and 2 responders to assist with tactical planning decisions.

To assess the level of risk, the FFC takes into account a large number of weather and catchment factors. Assessments are made in different ways for coastal, river, surface water and groundwater. These are then presented on a coloured risk basis. For many reasons the ability to assess flood risk varies across England and Wales.

The following is reviewed for each Flood Guidance Statement:

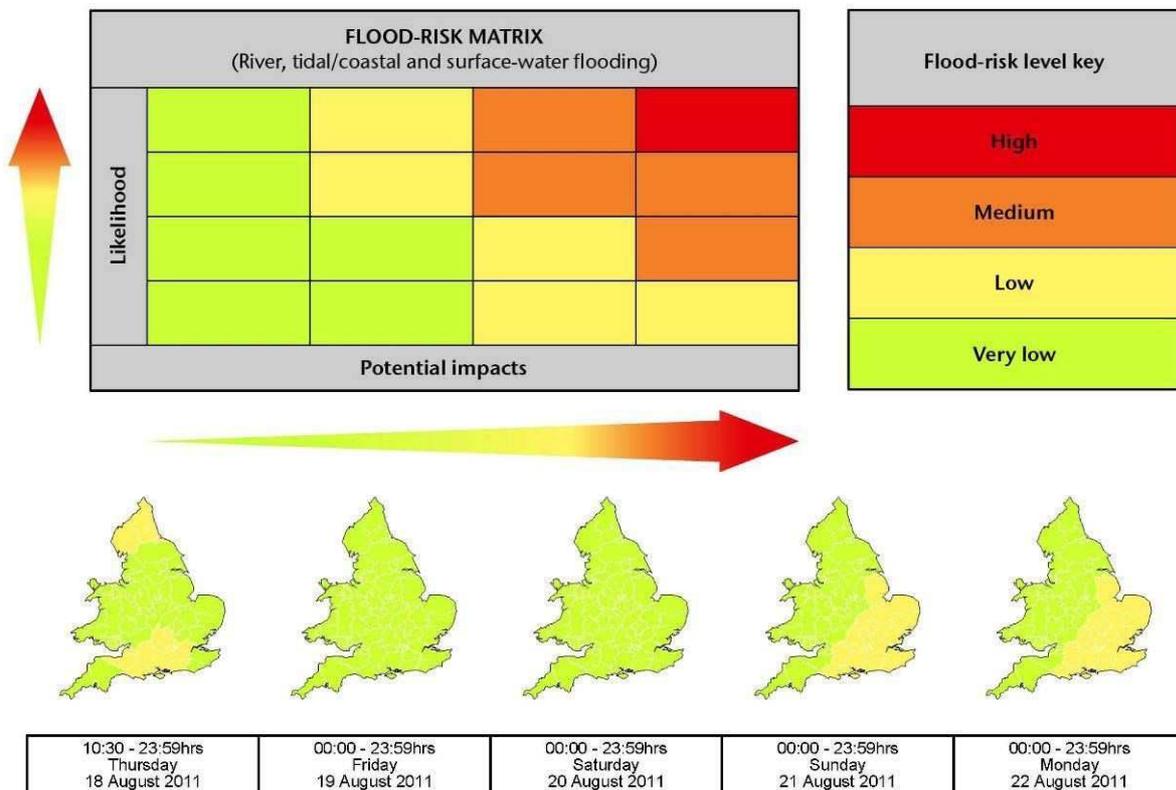
- The likelihood of an adverse flood event where likelihood bands are described as very low <20%, low 20-40%, medium 40-60%, high 60% or greater
- Recent weather conditions – is the event shortly after an earlier period of prolonged rain or other high impact weather
- Area and duration – is it expected to be short and localised or will it affect a large geographical area over several hours
- Knowledge about the condition of the catchments within the counties – how saturated are the catchments, how high are the rivers and what are the underlying conditions

- Detailed flood forecast models for the coast, showing surges and large waves, and flood flows for rivers are evaluated
- Seasonal factors, for example snow cover or leaf fall
- The combined effect of river flow and high tides – if a river flood is being assessed, does this coincide with high tides, which could cause problems

This assessment of risk is shown by county across England and Wales over five days. It identifies developing situations that could cause flooding and significant disruption to normal life. The FGS assesses the risk for all types of natural flooding – river, coastal, groundwater and surface water flooding.

It presents a collated assessment by the FFC and the local EA flood forecasting teams of the best understanding of risk based on weather forecasts, flood forecasts and catchment conditions on the ground.

The FGS risk matrix and key shows the assessment of likelihood against impacts that form the basis of the county map colouring. They contain a yellow, amber, red scale to highlight risk to allow partners to take necessary action to prepare in advance of flooding occurring. The FGS risk scale is based on the risk of disruption from all sources of flooding though, not just surface water.



During a flooding incident, the FGS is issued by the FFC¹ every day at 10:30am by email. It will also be issued at other times through the day and night, if the situation warrants and/or the flood risk changes.

A version of the FGS is published for the general public on the Environment Agency area of the GOV.UK website (look for flooding).

When a forecast identifies a risk of adverse weather in London, the Met Office Public Weather Service Advisor will usually provide via email an additional overview of the likely impacts focussing on London.

4.4 Main Rivers

4.4.1 Environment Agency - Flood Warning Service

The Environment Agency is responsible for issuing tidal and fluvial flood warnings to the general public, businesses, emergency responders and media. They are issued using their Flood Warning Service (FWS) which can send bulk messages to a mass audience via several formats (email, SMS text message and voice message). Messages issued through FWS also update flooding information on the GOV.UK website [Flood information service - GOV.UK](#) and the Floodline service (see section 7.2)

This is a free service that customers can register for. Domestic properties and local businesses which have not proactively registered to the service but who have a billing address for landline or mobile registered at an address within a flood warning area are automatically opted in on this number. Use of major telephony companies, offers a potential to deliver flood warnings to a greater number of properties. However, this service has some limitations, with customers able to opt out, not realising or understanding their flood risk or knowing what to do on receipt of such a message. The assumption is that customers who have proactively registered, are aware of the risk, and have offered additional contacts numbers. The number of customers proactively registered is shown in Appendix A9.

¹ Flood Guidance Statements and Public Weather Service Adviser comments are issued by email to Category 1 and 2 responders. Organisations have to register with the FFC to receive them.

Warning Code	Meaning
 <p>FLOOD ALERT FLOODING IS POSSIBLE. BE PREPARED.</p>	<p>Flooding is possible. Be prepared</p> <p>The impact on the ground will be flooding to roads, gardens, fields, recreation grounds, etc.</p> <p><i>Detail included with each Flood Alert will indicate the likelihood of escalating to Flood Warning.</i></p>
 <p>FLOOD WARNING FLOODING IS EXPECTED. IMMEDIATE ACTION REQUIRED.</p>	<p>Flooding is Expected. Immediate action required</p> <p>Impacts on the ground will be flooding to homes and businesses, infrastructure (roads / underground stations / utilities etc.) which will have a major impact.</p> <p>Expect significant transport disruption and a high level of local media interest.</p>
 <p>SEVERE FLOOD WARNING SEVERE FLOODING. DANGER TO LIFE.</p>	<p>Severe Flooding. Danger to life</p> <p>Impacts on the ground include deep and fast flowing water, potential collapse of structures, critical resources disabled, large towns/communities isolated, large volumes of evacuees. Expect significant transport disruption and a high level of local and national media interest.</p> <p>These are only issued in exceptional circumstances and are likely to only be issued once a certain level of flooding has already occurred.</p>
<p>Flood Alert / Flood Warning / Severe Flood Warning, no longer in force</p> <p>(No icon)</p>	<p>The flood alert / warning / severe flood warning is no longer in force for this area.</p> <p>Used to inform that the situation is improving.</p> <p>Even when a Flood Warning or a Severe Flood Warning is removed it may still mean that there are flooded properties, damaged infrastructure and standing water where flooding has occurred.</p>

4.4.2 Flood warning Areas

LBTH has either wholly or partially 4 Flood Warning areas (FWAs) within its boundary, meaning a maximum of 4 Flood Warnings can be in force at any one time. See Appendix A9 and Appendix B. The number of proactively registered customers is also shown in Appendix B.

4.5 Ordinary Watercourses

There are no bespoke warning systems in place for any ordinary watercourses within the borough.

4.6 Surface Water

There are no bespoke warning systems in place for surface water within the borough.

4.7 Groundwater

There are no bespoke warning systems in place for groundwater within the borough. Groundwater flooding is only likely to happen following a sustained period of rainfall and is likely to occur very slowly.

4.8 Artificial Water bodies

There are no bespoke warning systems in place for any artificial bodies within the borough. For the reservoirs, the EA can potentially use their flood warning service services to inform residents and issue a warning because the potential flow paths from a reservoir will mirror the areas likely to be at risk from fluvial flooding.

Due to the scale of the impact of a full reservoir failure it could result in a Severe Flood Warning and declaration of a major incident.

5.0 Roles and responsibilities

The following table outlines the responsibilities of some key partners involved in the response (information from LESLP document). All partners should also have internal procedures alongside the LESLP procedures to ensure a suitable response.

Partner agency	Roles and Responsibilities as defined by LESLP
Police	In the event of the agreed procedures for warning and informing communities at risk not being effective, then, where practicable, assistance will be given.
Fire	Give assistance with pumping operations, depending on the situation prevailing at the time, priority being given to calls where flooding involves a risk to life, of fire or explosion and to calls from hospitals, residential homes for the elderly, public utilities and food storage depots. To assist other relevant agencies, particularly the local authority, to minimise the effects of major flooding on the community.
Ambulance	The LAS may become involved in the evacuation of vulnerable persons and supporting the local authority. It should be noted that the LAS does not possess any waterborne response capability.

<p>Local Authority</p>	<p>Provision of general advice and information in support of the Environment Agency to the public on flood prevention measures and environmental health issues, including encouraging those at potential risk of flooding to sign up to the Environment Agency’s flood alert scheme.</p> <p>London Boroughs may also provide further assistance to the public if resources permit, i.e. drying-out facilities, provision/filling or placing of sandbags where danger is foreseen.</p> <p>Joint agency co-ordination of non-life threatening floods and of the recovery phase following a flooding incident.</p>
<p>Transport for London</p>	<p>Undertaking the management and operational continuity of transport infrastructure such as roads and rail and the provision of public transport.</p> <p>The provision of engineering and plant equipment at the request of the pan London Gold Coordinating Group or affected local authority Golds including the provision/filling or placing of sandbags where danger to life or infrastructure is foreseen.</p>

Environment Agency

We have the strategic overview for all types of flood risk from rivers, sea, groundwater, reservoirs and surface water. Our priority is to ensure we respond to and recover from river and sea flooding. However, we will often support other partners, especially the lead local flood authorities (London Boroughs) who lead on response to surface water and groundwater flooding.

Response phase:

- Provide a flood warning service for rivers and the sea, and giving advice to help people to protect themselves in time of flood
- Operate, monitor and maintain flood defence assets
- Attend and provide advice at multi-agency Tactical and Strategic Coordinating Groups
- Send support officers out to impacted communities to record data and talk to members of the public
- Assist emergency services and London Boroughs where resources allow

Recovery phase:

- Collect data, record and report
- Inspect flood defences
- Support flooded communities by attending ‘flood surgeries’
- Carry out post-flood surveys with affected communities and professional partners

6.0 Plan Activation

6.1 Thresholds and Triggers for Plan Activation

There are several thresholds and triggers that can be used to assess the need to escalate a situation and activate this plan. Activating the plan will instigate a coordinated multi-agency response.

There are two stages of activation:

- 1 – Preparation (When flooding is possible. Start preparing)
- 2 – Response (When flooding is expected. Immediate action is required)

Important to note: Each flood forecasting situation is different. Prescribed actions for one trigger is not realistic. The suggested actions below are a guide. There is a reliance on responders to evaluate the information they have themselves and take actions accordingly. For more clarification of flooding information please ring your local Environment Agency office/incident communication service.

Triggers and Activation for Stage 1 Flooding Preparation:

TRIGGERS FOR FLOODING PREPARATION:

- London is coloured amber or red (medium or high risk) on the Flood Guidance Statement (1 or 2 day lead time)
- The Met Office have issued a medium or high impact RAIN Warning or Alert for the London area, followed by a message from the Met Office Advisor (Civil Contingencies), confirming the likelihood of disruption
- The Environment Agency issues a Flood Alert for a river in Tower Hamlets
- Problems have been identified with a flood defence highlighting the possibility of a failure
- Problems have been identified with a reservoir upstream of Tower Hamlets that could impact the borough but has not yet failed or started to fail

WHEN ONE OR MORE OF THE TRIGGERS HAVE BEEN MET SEE ACTIONS BELOW



ACTIONS TO CONSIDER FOR FLOODING PREPARATION:

All Organisations to consider:

- Communicate internally – give key operatives a heads up, start placing staff on standby or assess current staffing levels
- Check your Business Continuity plan to ensure your organisation's critical business activities can still be met, if flooding were to occur
- Prepare for potential media interest. Allocate a media spokesperson and confirm key messages
- Have ready to go public messages on how to prepare for flooding, how to stay safe during flooding and who to contact during flooding etc
- Check your emergency control centre is in a state of readiness
- Check stocks of equipment and supplies
- Speak to the Met Office or the Environment Agency if flood forecasting information needs clarification
- Keep a watching brief on the situation and up to date with your emails
- Advise the public to call Floodline on 0345 988 1188 for up to date flooding information (be sure to have the quick dial numbers ready)
- Report any flooding within your area to your local Environment Agency office.
- Start communicating internally

6.2 Escalating from Stage 1 Flooding Preparation to Stage 2 Flooding Responses:

There might a period of inactivity between the preparation phase above and the response phase below. This could range from hours to days depending on the detail and confidence of the weather/flood forecasts.

There will be occasions when preparation phase (stage 1) is activated but response phase (stage 2) is not necessary. Activating the preparation phase ensures responders stay ahead of the incident, instead of trying to catch up during the response phase.

Triggers and Activation for Stage 2 Flooding Response:

TRIGGERS FOR FLOODING RESPONSE:

- London is coloured amber or red (medium or high risk) on the Flood Guidance Statement (less than 1 day lead time)
- The Environment Agency issues a Flood Warning or Severe Flood Warning for a river in Tower Hamlets
- The Met Office issues an Amber or Red RAIN Warning for the London area
- Any organisation becomes aware of disruption to transport in Tower Hamlets due to flooding
- Any organisation receives reports of flooding
- A flood defence structure has been breached or has failed
- A reservoir either upstream of Tower Hamlets is failing that could impact the borough

WHEN ONE OR MORE OF THE TRIGGERS HAVE BEEN MET SEE ACTIONS BELOW

ACTIONS TO CONSIDER FOR FLOODING RESPONSE:

All Organisations to consider:

- Activate generic emergency response plans and/or Business Continuity plans
- Prepare for transport and staff disruption
- Prepare for a possible increase in calls from the general public
- Open emergency control centres where appropriate
- Check the situation of critical sites and infrastructure in flood risk areas
- Agree local media messages - a flooding situation can change rapidly
- Advise the public to call Floodline on 0345 988 1188 for up to date flooding information (be sure to have the quick dial numbers ready)
- Report any flooding within your area to your local Environment Agency office.
- Keeping a watching brief of weather and flood forecasts
- Communicate externally (fellow category 1 and 2 responders)

COMMAND AND CONTROL actions to consider:

- Calling a TCG (silver) meeting or teleconference. Consider the need for an SCG (gold) meeting or teleconference to be established at the onset
- If appropriate a battle rhythm should be established

7 Public Communications

7.1 Media

Requests from and information to the news and social media is the responsibility of the responding partners in line with the London Command, Control and Information Sharing Protocol. It is likely that for the majority of partners this will be handled centrally within head quarter offices.

It is important all Category 1 partners press teams to ensure a single consistent message to the public and communicate effectively to do this.

7.2 Floodline

The Environment Agency has a 24-hour telephone information service called Floodline.

Phone Line	0345 988 1188	<ul style="list-style-type: none"> ● Press option 1 ● Enter the quick dial number (for Tower Hamlets quick dial numbers see appendix B)
Website	https://fwd.environment-agency.gov.uk/app/olr/home	
Live flood warning map	https://flood-warning-information.service.gov.uk/map	

Though primarily for use by members of the public, to find out details of the flood warnings in force, to report flooding or to request help on what to do before, during and after a flood, Floodline may also be used by responding agencies to receive updated information and to become aware of the information being provided to members of the public.

Whenever any Flood Alerts, Flood Warnings or Severe Flood Warnings are in force, information which is specific to each flood warning area is recorded to. This information is updated at least every 8 hours, but more frequently if a situation changes rapidly. (The same information is also uploaded to the Environment Agency website at the same time).

For easy access to the messages on Floodline that relate to a specific area, a system of 'quick dial numbers' is used. This enables a user to type in their 'local' code to take them straight to the information about their local river, as opposed to going through a menu system.

Information on river levels (and sea levels where required) can be found on the EA Flood webpage's (Professional Partners should contact EA via provided contact numbers for more detail).

7.3 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 messages are passed to the community and to ensure customs and beliefs are respected. The Council have contacts for local faith / community groups.