Flood Emergency Plans for New Developments

Planning Advice Note (June 2020)

1. **Introduction**…….. 2
2. **Policy Context**…….. 3
3. **Requirements**…….. 4
4. **Further Guidance**…….. 7
5. **Contacts**…….. 7
6. **Policies**…….. 7
7. **Appendices**…….. 7

City Flood Risk Area Map
Thames Tidal Breach Modelling – 2100 MLWL Flood Hazard Mapping
Thames Tidal Breach Modelling – 2005 MLWL Flood Hazard Mapping

DRAFT

Disclaimer:

It must be noted that any plan created following the advice given here will be the sole responsibility of the author of the Flood Emergency Plan and any signatories to it. The City of London Corporation cannot accept responsibility for any omission or error contained in any such plan, or for loss, damage, or inconvenience, which may result from the plans implementation. The City of London Corporation, as Local Planning Authority, will determine the requirement for a development to have a Flood Emergency Plan, the acceptability of using an emergency plan as risk mitigation, and the suitability of safe access and egress routes. Any subsequent acknowledgement of the emergency plan beyond this does not impute any approval of the plan itself from the City of London Corporation, the Environment Agency or any of the emergency services. A statement to this effect should be included within the Flood Emergency Plan,

1. Introduction

1.1 This guidance has been prepared by the City of London Corporation to outline when a Flood Emergency Plan (FEP) for a new development will be required as part of the planning application process. When FEPs are needed they will need to be agreed by the City Corporation before a planning permission can be issued. Where the FEP or development falls outside of the scope of this guidance, agreement of the plan will be determined based on independent advice, the cost of which will need to be covered by the applicant.

1.2 The River Thames is a significant natural feature within London and has played an important role in the formation and prosperity of the City. The Thames Barrier and our river defences play a significant role in protecting the Square Mile from tidal and fluvial flooding; however they do not entirely eliminate the risk from flooding. Residual risk, such as a breach of the river defence or surface water flooding could result in flooding particularly of basements or low-lying areas.

1.3 A FEP should be prepared for all developments within the City Flood Risk Area and will be informed largely by a development's site-specific Flood Risk Assessment. As a minimum it should identify safe access and egress routes in line with the City's Local Plan Policy DM 18.1 Development in the City Flood Risk Area (draft City Plan 2036 Policy CR2 Flood Risk). The Environment Agency (EA) will also require a FEP for developments at risk of flooding from the Thames. The FEP may also be part of a wider Flood Plan for dealing with flooding events and their aftermath.

1.4 It is expected that the majority of developments will only need to identify safe egress and access routes and that these will pass through unflooded areas. Others will need to provide more detailed measures where unflooded routes are not available. This document sets out the circumstance under which a FEP can be agreed without further independent advice.

1.5 Any FEP should be proportionate to the risk and impact of flooding on the development, with different approaches taken if the development is residential or commercial. It may therefore be that a chapter within the site-specific flood risk assessment is sufficient. Care should also be taken when disseminating the FEP and ensuring that the people responsible for its implementation are aware of it. If possible the FEP should be prepared in consultation with those responsible for its implementation and those ultimately dependant on it.

DRAFT

2. Policy Context

2.1 The planning policy framework, which comprises the context for the development of this guidance is set out below. The framework includes the documents below as well as other documents produced by the City of London Corporation.

City Corporate Plan

2.2 The City of London Corporation has set out its vision for the future within a corporate plan. This outlines the City's aims to contribute to a flourishing society, support a thriving economy and shape outstanding environments. Through this guidance and by requiring developers to create FEPs the City will be contributing towards the outcomes that ensure people are safe and feel safe, that our spaces are secure, resilient and well-maintained and that we have clean air, land and water and a thriving and sustainable natural environment.

National Planning Policy Framework

2.3 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how they are to be applied and establishes a presumption in favour of sustainable development. The NPPF sets out that where development occurs in areas at risk of flooding that applications should be supported by site-specific flood risk assessments and be subject to the Sequential and Exception tests. It states that, amongst other issues, applicant should demonstrate that safe access and escape routes are included where appropriate, as part of an *agreed emergency plan*.

London Plan

2.4 The London Plan is the Mayor's spatial development strategy for Greater London which forms part of the development plan for the City. It requires that developments are demonstrated to remain safe and operational under flood conditions and that there be a strategy under flood conditions of either safe evacuation and/or safely remaining in the building.

City of London Local Plan

2.5 The City's own Local Plan provides a spatial framework that brings together and co-ordinates a range of strategies that aim to fulfil the City's strategic objectives. It includes policies that directly addresses development in the City Flood Risk Area. It stipulates that the most vulnerable uses must be located in the parts of the development which are least at risk and that safe access and egress routes must be identified. The emerging City of London Local Plan 2036 currently continues to require this. The Local Plan establishes the extent of the City Flood Risk Area.

City of London Strategic Flood Risk Assessment

2.6 The City of London Strategic Flood Risk Assessment (SFRA) is a statutory document which has been prepared to identify flood risk within the Square Mile. It considered all flooding mechanisms and is indicative of where flooding is likely to occur and what the extent of flooding will be. The SFRA makes recommendations for Evacuation Access and Egress.

DRAFT

3. Requirements

3.1 In determining the suitability of a planning application the City of London Corporation will consider and agree on the following:

- If a new development requires an *agreed emergency plan*,
- If an emergency plan would be suitable given the vulnerability class of the new development,
- If the proposed safe access and egress routes are sufficient,
- If further independent advice is required.

3.2 Should an *agreed emergency plan* be required it must be agreed by the City Corporation before a planning approval can be granted. It is in the interest of applicants to ensure that sufficient information is provided at application to enable this.

3.3 A Flood Emergency Plan is one way for a development to demonstrate that it has met the requirements of the planning policy. How detailed a FEP will need to be should be assessed on a site-by-site basis and should be proportionate to the level of risk. A FEP may be part of a wider Flood Plan or Business Continuity procedure however the overriding aim of the FEP should always be to ensure the safety of people occupying the development. FEP should not increase the burden on the Emergency Services and should therefore allow for independent evacuation from a site.

3.4 Where an agreed FEP is appropriate it will need to remain in place and updated as required for the life of the building and will be secured by a planning condition.

Developments requiring an agreed FEP

3.5 All major developments in the City of London and all developments within the City Flood Risk Area are required as part of the planning application submission to provide a site-specific flood risk assessment. This will determine the likelihood and impact that each type of flooding may have on a site, the suitability of the site for development and should be used to determine the requirement for a FEP. All site-specific flood risk assessments should consider the implications of flooding on egress and access to a site. In some cases an additional chapter addressing safe access and egress within the site-specific flood risk assessment will be sufficient to meet the requirements of the policy.

3.6 When determining the requirement to have and extent of a FEP the following should be considered:

- The use of the development
- The vulnerability of any users and the familiarity of users with the building
- The flood zone in which the development is
- The mechanisms of flooding involved
- The exposure of the site to residual flood risk
- The speed at which flooding may occur
- The depth to which flooding will reach
- The ability to provide sufficient warning
- The speed at which evacuation can take place

DRAFT

3.7 A particular concern within the City of London would be the impact of a breach of the river defence and the rapid inundation of basements and lower floors within the surrounding area.

3.8 The City of London Corporation requires that an agreed FEP be prepared for:

- Developments in Flood zone 2/3 (where not precluded by the Exception Test)
- Developments with storeys below the flood level in surface water flooding hotspots
- Other developments with a known risk of rapid inundation.

Development vulnerability

3.9 The NPPF classifies the vulnerability of development to flooding based on their use (see Table 1) in order to apply the exception test. This excludes certain uses in defined areas of flood risk. The vulnerability takes account of the characteristics of the proposed uses in terms of their suitability to evacuate and the level of risk to each class of vulnerability. The appropriateness of both the use of FEP to mitigate risk and the suitability of the measures in a FEP will depend on the development's vulnerability.

Table 1: Development vulnerability classes

Essential Infrastructure	• Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk, strategic utility infrastructure, including electricity generating power stations and grid and primary substations
Highly Vulnerable	• Police, ambulance and fire stations and command centres and telecommunications installations required to be operational during flooding • Emergency dispersal points • Basement dwellings • Installations requiring hazardous substances consent
More Vulnerable	• Hospitals • Residential institutions such as care homes and hostels • Dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels • Non-residential uses for health services, nurseries and educational establishments • Sites used for waste management facilities for hazardous waste
Less Vulnerable	• Retailing, offices, general industry, storage and distribution, non-residential institutions not included in 'more vulnerable' and assembly and leisure

Safe egress and access routes

3.10 A significant part of any FEP is the capacity for occupants to safely exit the site while also allowing access for emergency services. Where a FEP is required routes for safe access should be clearly demonstrated.

3.11 Where a development is considered to be 'Less Vulnerable' under the flood risk vulnerability classifications and it can be demonstrated that there is a route that

remains unflooded for all flooding eventualities, a summary demonstrating this would be deemed acceptable.

3.12 The routes for safe egress and access may pass through flooded areas provided that it can be demonstrated that the flood hazard rating at any point along this route does not exceed 0.75 (Danger to some). Flood hazard maps for the Square Mile are provided in the SFRA but should be reviewed for their applicability where used. Flood hazard is shown on these maps in three coloured classifications (danger to some, danger to most, danger to all) each has a Flood Hazard score greater than 0.75. When a route is proposed that whilst flooded has a flood hazard of less than 0.75 and is for a development classed as Less or More Vulnerable then a fully considered FEP plan with appropriate mitigation measures will need to be agreed. The basis of this agreement will be that should the plan be followed that it would suitably mitigate the risk proposed by evacuation during a flooding incident. The responsibility of following the plan and updating it will remain with the occupants.

3.13 Where a flood route would pass through an area with a flood hazard of 0.75 or greater than this would be considered to be out of the scope of this document. Developments considered to be Highly Vulnerable or Essential Infrastructure are also considered to be outside of scope and will require independent review of any proposed FEP.

Table 2: Summary of the developments for which an FEP and safe egress and access routes can be agreed and the conditions to this

Vulnerability Classification	**Safe egress and access route**		
	Unflooded	**Flood Hazard <0.75**	**Flood Hazard >0.75**
Less Vulnerable	Acceptable on routes alone*	Require fully considered FEP	Independent review of FEP
More Vulnerable	Require fully considered FEP	Require fully considered FEP	Independent review of FEP
Highly Vulnerable and Essential Infrastructure	Independent review of FEP	Independent review of FEP	Independent review of FEP

** It is expected that most developments in the Square Mile will fall into this category.*

Developments requiring independent review

3.14 Where the FEP for a development cannot be agreed on the basis of this document due either to vulnerability or flood hazard it will require an independent review. This independent review will need to be done at cost to the applicant and by a third party chosen by the City Corporation.

3.15 Where an FEP fails to demonstrate to the satisfaction of the City Corporation that a route does not pass through an area with a flood hazard of less than 0.75 or in other exceptional circumstances, then an independent review will also be required.

3.16 Whilst a site could be considered to be acceptable following the exception test it may be that a FEP cannot be agreed as it would be insufficient mitigation to the risks of flooding for that development. Should a development be rejected for this reason it will be on the basis of an independent review.

DRAFT

4. Further guidance

4.1 Further guidance on Flood Emergency Plans is available in a briefing note produced by ADEPT and the EA. And is available online from ADEPT's website https://www.adeptnet.org.uk/floodriskemergencyplan

5. Contacts

Please phone the General Planning Enquires desk for information on flood emergency planning issues.

Phone
020 7332 1710

Email
flooding@cityoflondon.gov.uk

Contact Address
Department of the Built Environment
Guildhall
PO Box 270
London
EC2P 2EJ

6. Policies

Relevant City of London Plan 2015 policies
DM 18.1 Development in the City Flood Risk Area

Relevant City of London Plan 2036 policies
CR2 Flood Risk

7. Appendices

Thames Tidal Breach Modelling – 2100 MLWL Flood Hazard Mapping

Thames Tidal Breach Modelling – 2005 MLWL Flood Hazard Mapping

DRAFT

531000 531500 532000 532500 533000 533500 534000

182500 182000 181500 181000 180500 180000

N

0 250 500 750 1000 m

KEY:

- City of London Boundary
- Existing Flood Defences

Flood Hazard

- Danger for Some
- Danger for Most
- Danger for All

REV	DATE	DRW	DESCRIPTION	CHK	APP
A	17/11/17	SW	FOR INFORMATION ONLY	RS	BV

STATUS: FOR INFORMATION ONLY

wsp

Mountbatten House, Basing View,
Basingstoke, HANTS, RG21 4HJ
Tel: +44 (0) 1256 318 800
Fax: +44 (0) 1256 318 70

CLIENT: CITY OF LONDON CORPORATION

ARCHITECT: -

PROJECT: CITY OF LONDON STRATEGIC FLOOD RISK ASSESSMENT

TITLE: THAMES TIDAL BREACH MODELLING - 2100 MLWL FLOOD HAZARD MAPPING

DRAWN:	CHECKED:	APPROVED:

QGIS FILE:	SCALE @A3:	DATE:
33014-COL-311.qgs	1:10,000	17/11/17

PROJECT No:	DRAWING No:	REV:
70033014	33014-COL-311	A

THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN WSP AND MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR WRITTEN CONSENT
CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2017, ENVIRONMENT AGENCY INFORMATION © ENVIRONMENT AGENCY AND DATABASE RIGHT 2017
BRITISH GEOLOGICAL SURVEY MATERIALS © NERC 2017

Created by: UKRLS003 - 2017-11-17 14:20:40 - //uk.wspgroup.com/central data/Projects/700330xx/70033014 - City of London SFRA 2017/02 WIP/DE Development/02 Drawings/GIS/Drawings/33014-COL-311.qgs

531000 531500 532000 532500 533000 533500 534000

182500 182000 181500 181000 180500 180000

N

0 250 500 750 1000 m

KEY:

- City of London Boundary
- Existing Flood Defences

Flood Hazard

- Danger for Some
- Danger for Most
- Danger for All

REV	DATE	DRW	DESCRIPTION	CHK	APP
A	17/11/17	SW	FOR INFORMATION ONLY	RS	BV

STATUS:

FOR INFORMATION ONLY

wsp

Mountbatten House, Basing View,
Basingstoke, HANTS, RG21 4HJ
Tel: +44 (0) 1256 318 800
Fax: +44 (0) 1256 318 70

CLIENT:

CITY OF LONDON CORPORATION

ARCHITECT:

-

PROJECT:

CITY OF LONDON
STRATEGIC FLOOD RISK
ASSESSMENT

TITLE:

THAMES TIDAL BREACH
MODELLING - 2005 MLWL FLOOD
HAZARD MAPPING

DRAWN:	CHECKED:	APPROVED:

QGIS FILE:	SCALE @A3:	DATE:
33014-COL-308.qgs	1:10,000	17/11/17

PROJECT No:	DRAWING No:	REV:
70033014	33014-COL-308	A

THE PROPERTY OF THIS DRAWING AND DESIGN IS VESTED IN WSP AND MUST NOT BE COPIED OR REPRODUCED IN ANY WAY WITHOUT THEIR WRITTEN CONSENT
CONTAINS ORDNANCE SURVEY DATA © CROWN COPYRIGHT AND DATABASE RIGHT 2017, ENVIRONMENT AGENCY INFORMATION © ENVIRONMENT AGENCY AND DATABASE RIGHT 2017
BRITISH GEOLOGICAL SURVEY MATERIALS © NERC 2017

Created by: UKRLS003 - 2017-11-17 13:38:44 - //uk.wspgroup.com/central data/Projects/70033oxx/70033014 - City of London SFRA 2017/02 WIP/DE Development/02 Drawings/GIS/Drawings/33014-COL-308.qgs