UNIT 2

FOUNTAYNE BUSINESS PARK, LONDON N15 4EQ

FLOOD RISK MANAGEMENT PLAN

FOR

NATIONAL COLLEGE FOR DIGITAL SKILLS



June 2016

Our Ref: HLEF42099/001R

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This report has been prepared in the RPS Group Quality Management System to British Standard EN ISO 9001:2008

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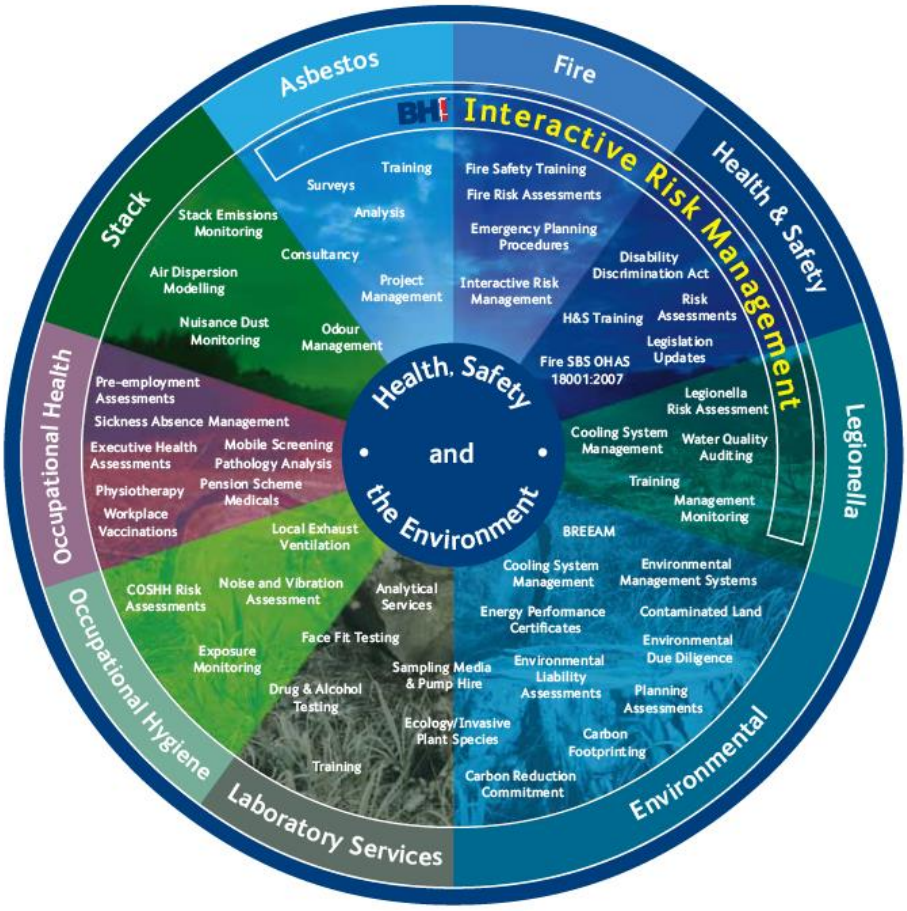

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1 INTRODUCTION

1.1 **A COPY OF THIS REPORT SHOULD BE MAINTAINED IN THE MAIN COLLEGE OFFICE. ALL STAFF SHOULD BE BRIEFED ON THE CONTENTS AND PROCEDURES.**

1.2 Due to the proximity of the River Lea, there is the possibility that the area of the site may experience flooding during an extreme 1 in 1000 year fluvial flood event. This plan details the actions to be taken in the event of a predicted or actual flood event, in order to ensure the safety of staff and students.

1.3 This Flood Risk Management Plan has been produced to raise awareness of the potential flood risk and to provide guidance regarding appropriate actions to be taken in the unlikely event of flooding or receipt of a flood warning for the site.

1.4 The college is to be registered with the Environment Agency's *Flood Warnings Direct* service. A set evacuation route is proposed, leading to an area at a low risk of flooding. This is provided in Appendix A.

1.5 This document is intended to be an accessible quick-reference guide and is deliberately brief with an emphasis on clear graphical aids. A technical explanation of the flood risk and reasoning behind the evacuation procedure is provided in Appendix B.

1.6 The report should be considered a live document which will require regular review in accordance with any local changes in procedures. As a minimum an annual review should be undertaken along with a review following each evacuation undertaken.

1.7 **Instructions in this plan should be disregarded if contradictory instructions are given by the emergency services or other authority co-ordinating an emergency response.**

2 PREPARING FOR FLOODING

2.1 The primary intention of this plan is that the property will be evacuated prior to any flooding occurring. It is re-iterated that the site would only be affected by an extreme fluvial flood that is expected to occur on average less often than once every 100 years and therefore evacuation would only be required in extreme circumstances. In the worse-case scenario that evacuation is not possible, occupants are advised to remain within the building, on the first floor or above, until floodwaters recede. It is recommended that some basic preparatory measures are in place in case occupants need to remain within the building for several hours until evacuation is possible.

2.2 It is recommended that the College Manager prepares a 'Flood Kit' in order to ensure that they have essential items in a readily accessible place in the event that occupants need to seek refuge on the upper floors of the building for the duration of a flood event. The following items are recommended for inclusion (these items should either be stored permanently in a central location on the first floor, or be collated and moved to the first floor if flooding is imminent and evacuation is not possible):

- Fully charged mobile phone
- Torch
- Spare batteries
- First aid kit
- Bottled water
- Non-perishable food items
- Local council / emergency services contact numbers and local radio frequencies (see Section 6).
- Essential prescription medication and / or items.

2.3 The building is located above the 1 in 100 year plus climate change flood level and therefore so are all key internal building services. As a result, no flood resilience and resistance techniques are required at the site (see Appendix B for further details).

3 METHODS OF MONITORING FLOOD RISK

3.1 It is crucial that the site can be evacuated before flooding occurs. To enable advance warning of a flood event, the college will sign up to receive the Environment Agency's flood warnings.

Environment Agency Flood Warnings

3.2 The Environment Agency is responsible for monitoring flood events and for issuing warnings to people in properties and businesses at risk of flooding. They operate a four stage coded warning system. Definitions and symbols for each warning stage are given in the table below.

Warning Symbol	Status
	**Severe Flood Warning** Severe flooding. Danger to life.
	**Flood Warning** Flooding is expected. Immediate action required.
	**Flood Alert** Flooding is possible. Be prepared.
No symbol	**Warning no longer in force** Flood warnings and flood alerts that have been removed in the last 24 hours.

3.3 The subject site is in the flood warning areas known as 'The Lower River Lee at Enfield including Edmonton and Tottenham'.

3.4 The college will be registered with the *Flood Warnings Direct* service and warnings will be received via the following methods:

Notification to:	
Method of receipt:	

3.5 Information regarding the latest flood warning status can also be obtained via the following sources:

- The Environment Agency website:

  http://apps.environment-agency.gov.uk/flood/31618.aspx

- Calling the Environment Agency's Floodline on 0345 988 1188 (select option 1 and enter Quickdial numbers 172092 for information for this area).

- Local television or radio.

3.6 Evacuation procedures are provided in Section 4.

3.7 In the event that water, from any source, has already reached the building or Fountayne Business Park prior to implementation of the evacuation plan, safe refuge is available on the upper floors of the building and all site users should be escorted to the first floor and remain here until flood waters subside. Items to have on hand in this scenario are listed in Section 2.

4 EVACUATION PROCEDURE

The following flow chart should be followed, according to the level of flood warning.

FLOOD ALERT		
	Flood Alert	- Check Environment Agency website or call Floodline for updated flood status hourly - Notify members of staff and students of possibility of evacuation - Consider the needs of any staff / students with mobility requirements - Collate any necessary emergency contact details and items listed in Section 2 in case of prolonged refuge within the building - Follow local media coverage

FLOOD WARNING OR SEVERE FLOOD WARNING		
 	Flood Warning OR Severe Flood Warning	- Notify key staff members of imminent evacuation - Visual check that there is no flooding on Broad Lane - Staff to assist with evacuation of all site users by foot, following designated evacuation route (see Appendix A) - Check all teaching rooms, toilets and other rooms are empty - All to congregate at assembly point in the public space between Walton Road and Victoria Road (see Appendix A) - Notify any absent staff / students that college has been closed - If warning received outside opening hours, notify parents and students that college will not be opening - Co-operate with emergency services - Call 999 if in immediate danger

ACTUAL FLOODING		
	Flooding of Fountayne Business Park or Broad Lane	If building is still occupied: - Inform staff that evacuation is no longer safe - All staff and students to relocate immediately to first floor or above (with emergency items listed in Section 2) - Co-operate with emergency services - Call 999 if in immediate danger

FLOOD WARNING NO LONGER IN FORCE		
	Flood warnings and alerts have been removed	- No further flooding expected. If flooding has not occurred, property can be re-occupied. - If flooding has occurred, building to be inspected for safety prior to reoccupation.

Evacuation Route

4.1 If the necessary triggers require an evacuation to occur, the following evacuation route has been identified. Staff and students should leave the site via the main entrance and follow the Broad Lane in a southerly direction, veering right to continue on Broad Lane in a southwesterly direction, see Appendix A. It is proposed that staff and students assemble further down Broad Lane, in the open area off Broad Lane between Walton Road and Victoria Road (opposite The People's Christian Fellowship church) as this is the first public area outside of the extreme flood extent deemed appropriate for congregating.

5 STAFF TRAINING

5.1 All staff should review this plan as part of their standard induction, and designated personnel should be appointed to co-ordinate any required evacuation (it is anticipated that responsibilities will be similar to a fire evacuation).

5.2 Training should include:

- awareness of the potential for flooding;
- the method by which flood warnings will be received;
- methods for communicating evacuation to staff and students;
- evacuation procedures, including the proposed evacuation route and meeting point; and
- methods of communication to emergency contacts in the event of flooding / evacuation.

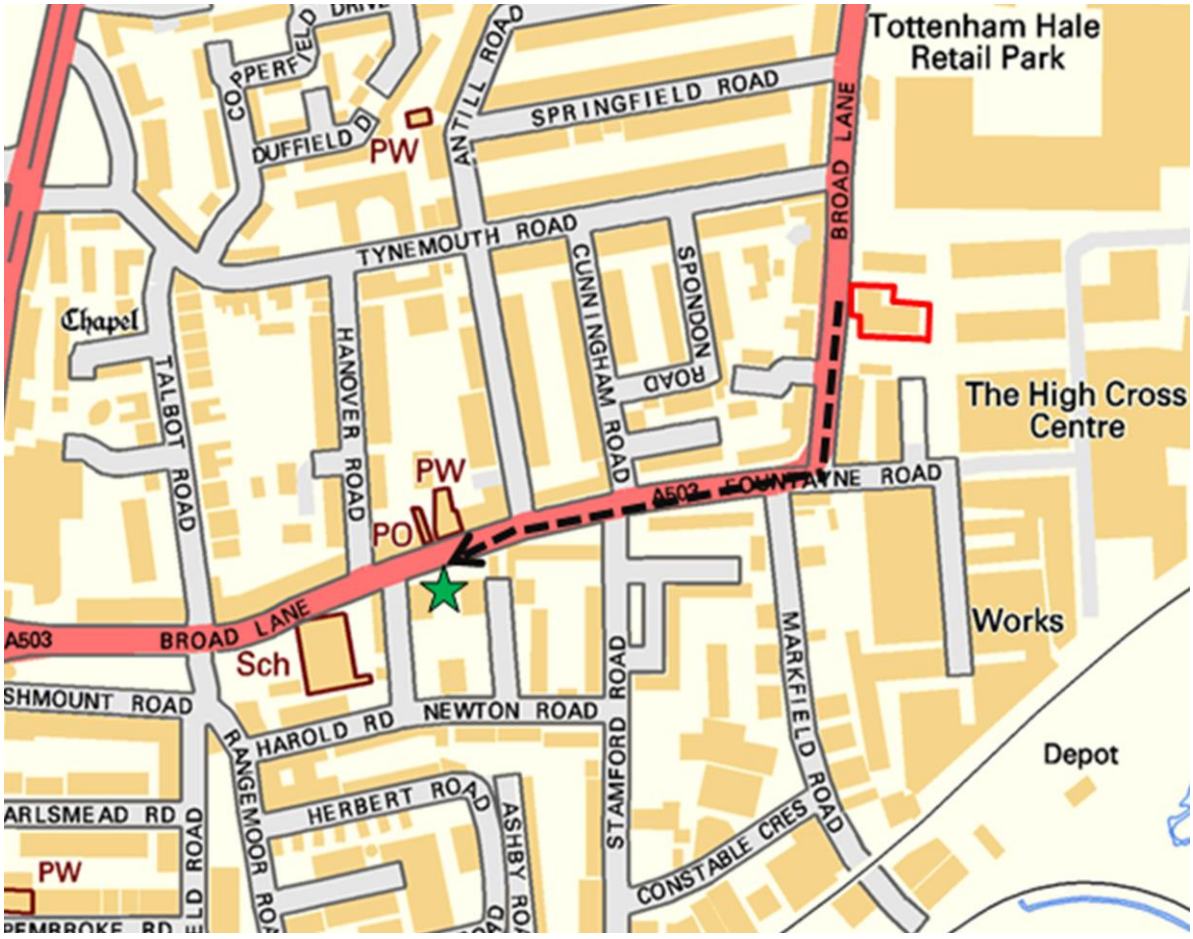
5.3 Refresher training should be undertaken on an annual basis, or in the event that an evacuation has to be undertaken (whichever occurs first).

6 USEFUL CONTACT DETAILS

Contact / Organisation	Contact Details
Emergency Services	999
Site Manager (Flood risk co-ordinator)	
Floodline	0345 988 1188 (select option 1 and enter Quickdial numbers 172092)
Haringey Borough Council – Environmental Services and Community Safety (Monday to Friday 9am to 5pm)	020 8489 1335
Haringey Borough Council (Out of Hours Emergencies)	020 8489 0000
Environment Agency	03708 506 506
National Gas Emergency Service	0800 111 999
Metropolitan Police non-emergency number	101

APPENDIX A

Evacuation Route



Appendix A: Flood Evacuation Route

Map Date: Current

Scale: Not to scale

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APPENDIX B

Technical Justification

B.1 The National Planning Policy Framework (NPPF) requires that flood risk is appropriately managed for new developments so that they remain safe throughout their lifetime, taking climate change into account. Safe access and egress routes should be provided.

B.2 The college is located within an area that is susceptible to flooding from the River Lea. The site is within the 1 in 1000 year fluvial floodplain and it is therefore anticipated that the site would be affected during an extreme fluvial flood event only.

B.3 According to the NPPF, development should take '*account of the impacts of climate change*.' The proposed change of use is for a three year period, and therefore climate change needs to be considered up to 2019 only. It is not considered that there will be any significant change in the floodplain in the area of the site within this period compared to the current EA flood zones. (It is noted that the extent of Flood Zone 3 is currently 450m east of the site and remains in channel.)

B.4 Therefore, for the subject site the '1 in 100 year plus climate change' design flood level is roughly equivalent to the current 1 in 100 year flood level, which the subject site is located above as it is within Flood Zone 2.

B.5 The Environment Agency's standing advice for More Vulnerable developments in Flood Zone 2 requires flood resilience and resistance techniques to be used in buildings '*that are situated below the 1 in 100 annual probability river flood (1%) ... in any year (including an allowance for climate change)*.' It has been demonstrated within the associated Flood Risk and Drainage Statement (RPS report ref. HLEF39450/001L) that the site is located above the 1 in 100 year flood level (including an allowance for three years of climate change) and therefore these requirements do not apply.

B.6 In addition, the NPPF requires the provision of safe access and egress routes for any development within the floodplain. Safe access needs to be available for the design flood event, i.e. the 1 in 100 year plus climate change event. As stated within the Flood Risk and Drainage Statement, dry access and egress is available for the site during a 1 in 100 year fluvial event, for the three-year lifetime of the development and no intervention of the Local Authority would be necessary.

B.7 However, as a prudent measure, this Flood Risk Management Plan details actions to be taken during an extreme 1 in 1000 year flood event. The site will be registered with the Environment Agency's *Flood Warnings Direct* service. The college will be evacuated on receipt of a Flood Warning, as a prudent measure.

B.8 Given the location of the site 450m from the watercourse, should the channel be overtopped, it is likely that considerable warning would be available before floodwaters reach the site.

B.9 Trigger levels for evacuation are deliberately conservative given the sensitive use of the building as an educational facility. In the worse-case scenario that flooding occurs without warning, before

evacuation can be undertaken, the upper floors of the building will provide an area of dry refuge for site occupants.

B.10 No severe flooding has been recorded in the area of the site in recent history, however, it is important that the college is aware of the potential risk and is prepared to deal with such an event.

APPENDIX C

RPS General Notes

RPS HEALTH, SAFETY & ENVIRONMENT

General Notes

The following notes should be read in conjunction with the report:

1. This report contains only that available factual data for the site, which was obtained from the sources, described in the text. These data were related to the site on the basis of the location information made available to RPS by the client.

2. The assessment of the site is based on information supplied by the client. Relevant information was also obtained from other sources.

3. The report reflects both the information provided to RPS in documents made available for review and the results of observations and consultations by RPS staff.

4. Where data have been supplied by the client or other sources, including that from previous site audits or investigations, it has been assumed that the information is correct but no warranty is given to that effect. While reasonable care and skill has been applied in review of this data no responsibility can be accepted by RPS for inaccuracies in the data supplied.

5. This report is prepared and written in the context of the proposals stated in the introduction to this report and its contents should not be used out of context. Furthermore new information, changed practices and changes in legislation may necessitate revised interpretation of the report after its original submission.

6. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to the RPS Company by the client of the outstanding amounts.

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