N

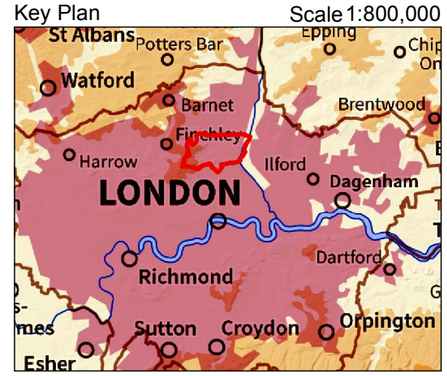
SITE LOCATION

0 0.25 0.5 1 1.5 2 km

Legend

- Flood Zone 3b
- Flood Zone 3a
- Flood Zone 2

Key Plan



Scale 1:800,000

Drawn MR	Date March 2013	Approved JJS

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London Borough of Haringey

Haringey Council

JBA consulting

www.jbaconsulting.com

Haringey Level 2 SFRA

Flood Zones

Scale 1:30,000 @ A1

Map No: 09

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Haringey Council, September 2012

N

EDMONTON

FRIERN BARNET

Brunswick Park

New Southgate

Lower Edmonton

Upper Edmonton

Bowes Park

WOOD GREEN

Muswell Hill

TOTTENHAM

HORNSEY

Fortis Green

Crouch End

Highgate

SITE LOCATION

HAMPSTEAD

STOKE NEWINGTON

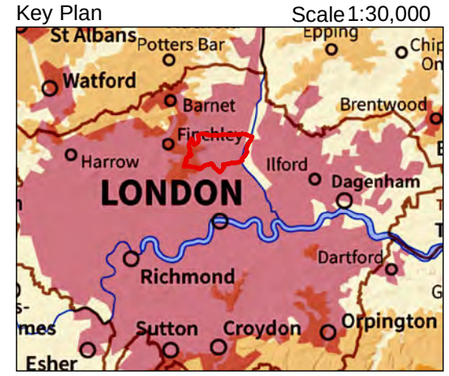
0 0.25 0.5 1 1.5 2 km

Legend

Haringey Reservoir Flood Outline

Key Plan

Scale 1:30,000



Drawn MR	Date March 2013	Approved JJS

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London Borough of Haringey

Haringey Council

JBA consulting

www.jbaconsulting.com

Haringey Level 2 SFRA

Reservoir Flood Outline

Scale 1:30,000 @ A1

Map No: 10

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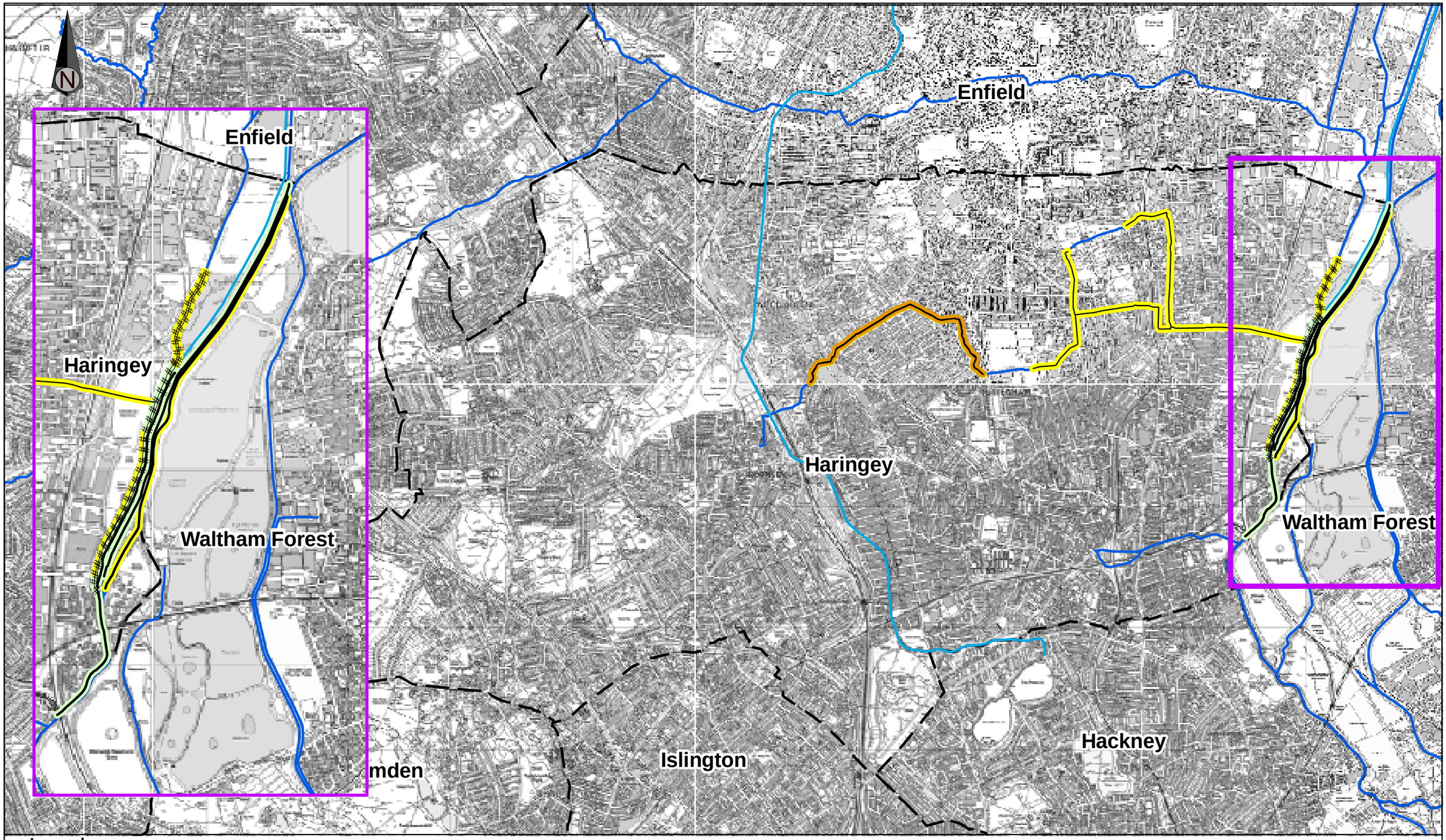
Haringey Council, September 2012



Legend

- Borough Boundaries
- Watercourses
- Canals

Flood Defences Asset

- Culverted channel
- Maintained channel
- Raised defence (man-made)

Flood Defences Asset Condition

- 2 Good
- 3 Fair
- 4 Poor

All design, comments and recommendations are done so on behalf of Mouchel Parkman and no individual responsibility is taken or implied in anyway, by recieving and acting on this infomation you, the client or any third party, are accepting that no individual is personally liable in contract, tort or breach of statutory duty (including negligence).

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Data Origin
All data excluding the borough boundaries were provided by the EA.

mouchel

Client: **North London Waste Plan**

Project: **North London Strategic Flood Risk Assessment**

Purpose: **Information**

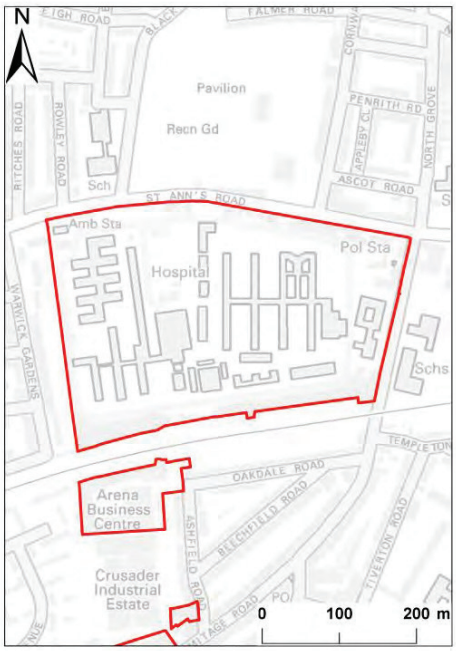
Drawing Title: **Map 17: Haringey Flood Defence Asset Condition**

Drawn	SL	Chckd	KR	Apprvd	FP
Date	07/08/08	Date	07/08/08	Date	08/08/08

Draft		Scale (at A3 size)	Issuing Office	Sutton Coldfield	Drawing Number	Rev
Issue	●	1:30,000	Telephone	0121 355 8949	722586/017	C

Table 1- 15 St Ann's Hospital			
Site ID 15	**OS NGR**: 532442, 188546	**Area**: 11.50 ha	**Time:** 1-5 years
Existing Use : Health facilities, open space (SINC, EVS) and educational use		**Proposed Use:** Mixed Use Development, with an element of health facilities and possibly a site wide combined heat and power (CHP) plant	
Exception Test Required?: No - Site is in Flood Zone 1, however developers should be mindful of other sources of flood risk and design their site so vulnerable uses are located in the areas of lower risk.			
Flood Defence : None		**Drainage Area:** Group4_057	
Flood Zone Coverage:	**FZ1 :** 100%	**FZ2 :** 0%	**FZ3a:** 0%	**FZ3b:** 0%

Flood Zones



Legend

Development Site

Flood Zones

Flood Zone 3b

Flood Zone 3a

Flood Zone 2

Climate Change

1:100 AEP + CC

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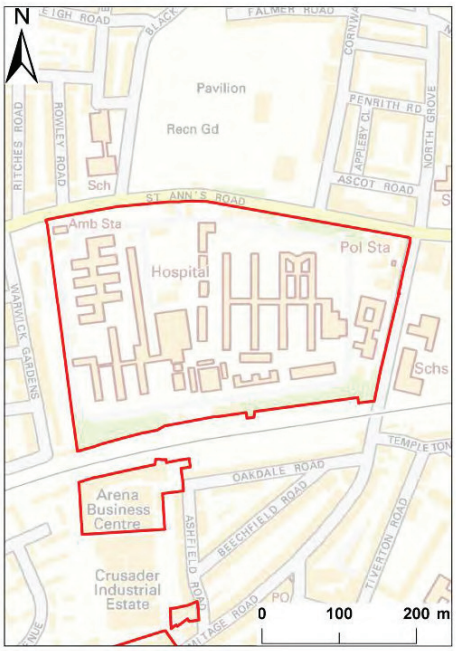
Climate Change



Fluvial: The site is considered to comprise land assessed as having a less than 1 in 1,000 annual probability of river or sea flooding (<0.1%).

Surface Water: Surface water presents a risk to the site. Further development may result in an increase of surface water flood risk. There are no specific flow routes on the site, however the model results shows several areas of ponding on the site.

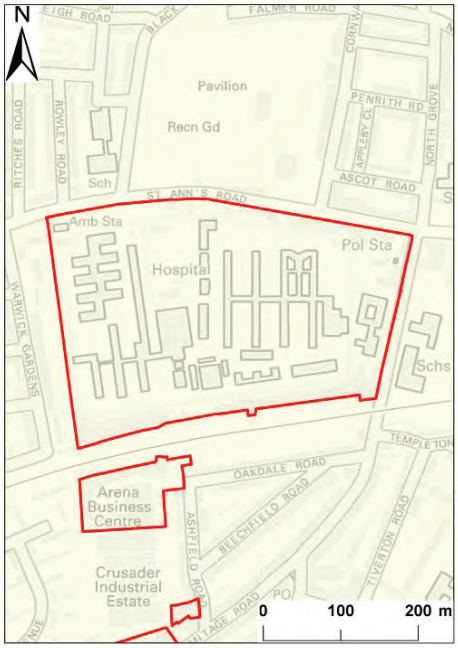
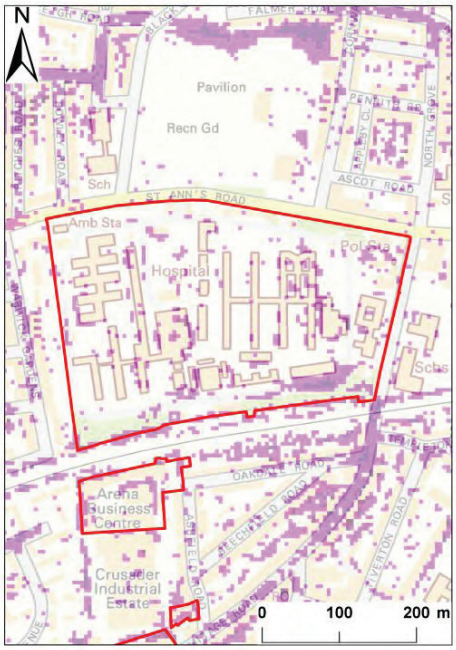
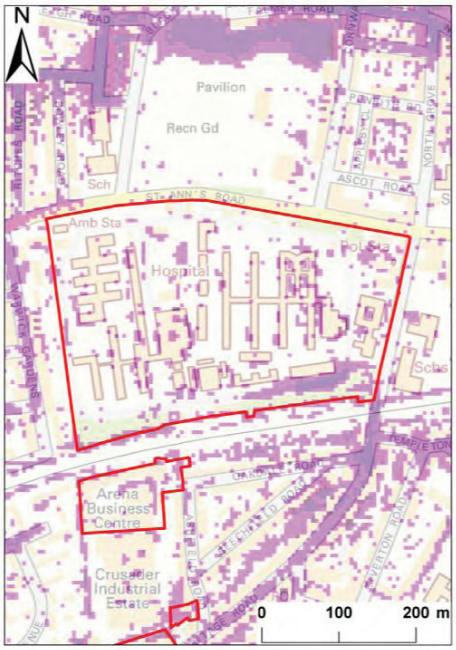
% of site at risk from Pluvial flooding:	1:30 AEP (0.1m):	1:30 AEP (0.3m):	1:200 AEP (0.1m):	1:200 AEP (0.3m):
	12.2%	0.7%	15.5%	1.5%

AStGWF:	% of Superficial Deposits:	NRIM (%):
< 25%	0	42.0

Reservoir: The site is within the National Reservoir Maps provided by the Environment Agency for the Crouch Hill Reservoir. It should be noted that this map is used for indicative purposes only.

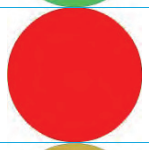
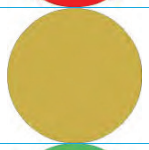
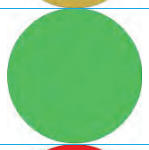
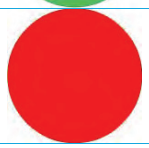
Groundwater: The AStGWF is described as a 1km grid. The site falls within a 1km grid cell that has been designated as having <25% susceptiblity to groundwater flood emergence from superficial deposits. This assessment does not negate the requirement that an appropriate assessment of the groundwater regime should be carried out, especially if the development is to include basement extensions.

Other Sources of Flood Risk: The LB of Haringey SWMP Figure 9 shows 1 - 5 records of sewer flooding.

Groundwater		Reservoir
	**Legend** Development Site **AStGWF** < 25% >= 25% <50% >= 50% <75% >= 75% **NRIM Outline** Reservoir Failure *Disclaimer : Contains Ordnance Survey data © Crown copyright and database right 2012*	
Surface Water - 1: 30 AEP		**Surface Water - 1: 200 AEP**
	**Legend** Development Site **SWMP Results** 0.3m 0.1m *Disclaimer : Contains Ordnance Survey data © Crown copyright and database right 2012*	

Surface Water Drainage: As an indication of requirements to manage surface water runoff at the development site an assessment of the soil types, greenfield runoff rate and attenuation storage volume is included below. Storage volumes displayed are calculated with an assumption that 70% of the site will be developed impermeable ground. A 30% increase in rainfall depths has been included to represent predicted future climate change effects. PLEASE NOTE: This assessment has been carried out using broad-scale datasets and aims to provide an indication of the likely opportunities and constraints for this development site. A detailed drainage assessment based on site-specific conditions should be carried out by a suitably qualified professional and submitted with any planning application. The values below should not be used for design purposes.

Soil Type: Sand and Gravel/Diamicton	**Pre-development (Greenfield) Runoff Volume (m^3)** 4599.9	**Climate change runoff (Development no attenuation)** 8371.9	**Estimated Attenuation Storage Volume (m^3)** 3771.9

SuDS Type	Potential Suitability	Comments
Source Control		All forms of source control excluding pervious pavements would be suitable
Infiltration		Mapping suggests low permeability at this site. This site is located within an EA source protection zone.
Detention		This option may be feasible provided site slopes are < 5%.
Filtration		This feature is probably feasible, provided a liner is included; due to the contaminated land issues described on site and the site's susceptibility to groundwater flooding (AStGWF).
Conveyance		Mapping indicates that this feature is probably not suitable, due to the slope of the site. (Slope <0.4)

Flood Risk Implications for Site

• The site is located within Flood Zone 1 and within a Critical Drainage Area as defined by the LB of Haringey SWMP. An FRA is required in order to demonstrate how the site is to manage surface water.
• The main risk to the site is from surface water. A comprehensive investigation into the surface water drainage is required. More vulnerable development as described within NPPF should be located in the areas of least flood risk.
• Developers should consider the surface water catchment when looking at solutions for mitigation measures for surface water runoff from potential development. This may require developers to consider solutions outside of their site. Liaison with the appropriate SuDS Approving Body and LB of Haringey should be carried out in the early stages of the development.
• Assessment for runoff should include allowance for climate change effects.
• New or re-development should adopt exemplar source control SuDS techniques to reduce the risk of frequent low impact flooding due to post-development runoff.
• Onsite attenuation schemes will need to be tested against the hydrograph of the receiving watercourse or drainage system to ensure flows are not exacerbated downstream within the catchment.
• The site falls within an area susceptible to groundwater emergence. An assessment of suitable surface water mitigation techniques should be made.
• Assessment of the current access road flood risk and if new access roads are considered flood risk needs to be investigated further.
• Self Contained Basement dwellings should not be located within areas of flood risk.
• Any basement extension must not disrupt the hydrogeological regime of the area. Basement extensions located in areas of risk should not have any sleeping accommodation and will require access to an upper level.
• The site is indicated by the NRIM outline to be at risk from inundation from a reservoir breach, any development located within this outline should demonstrate that there is egress from the development outside the area of risk.
An FRA will need to demonstrate that development at this location can be made safe.

APPENDIX C

North London – SFRA Maps