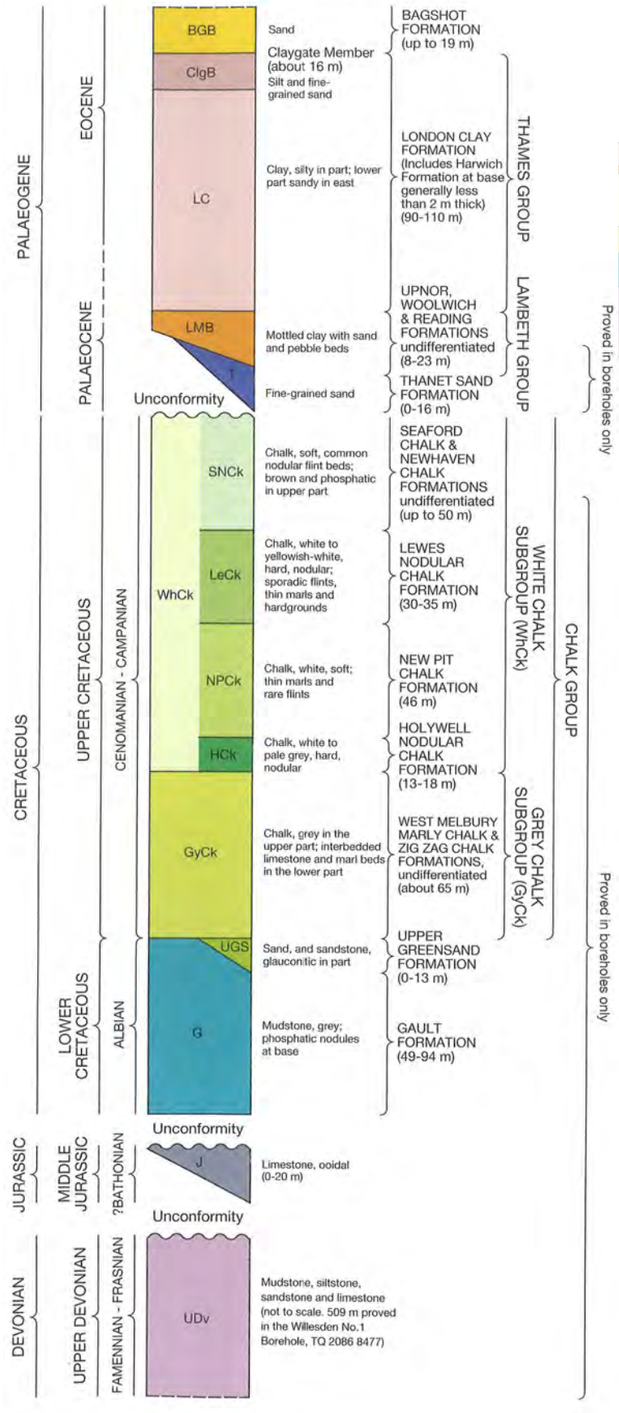
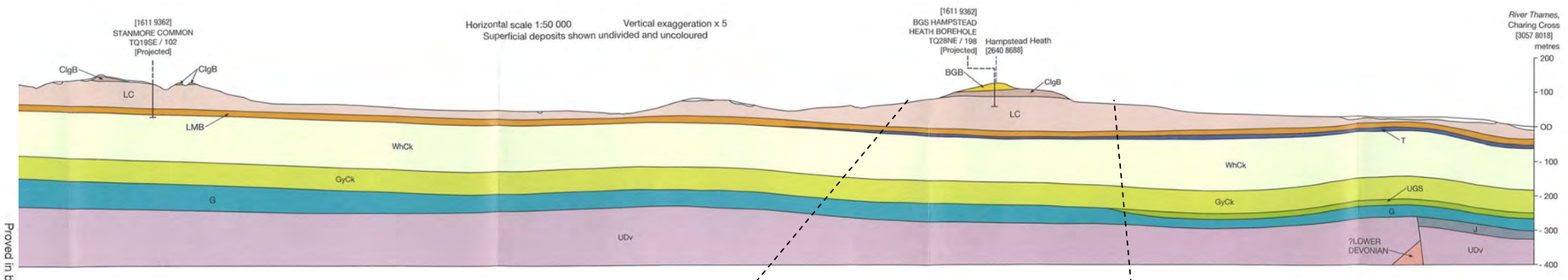
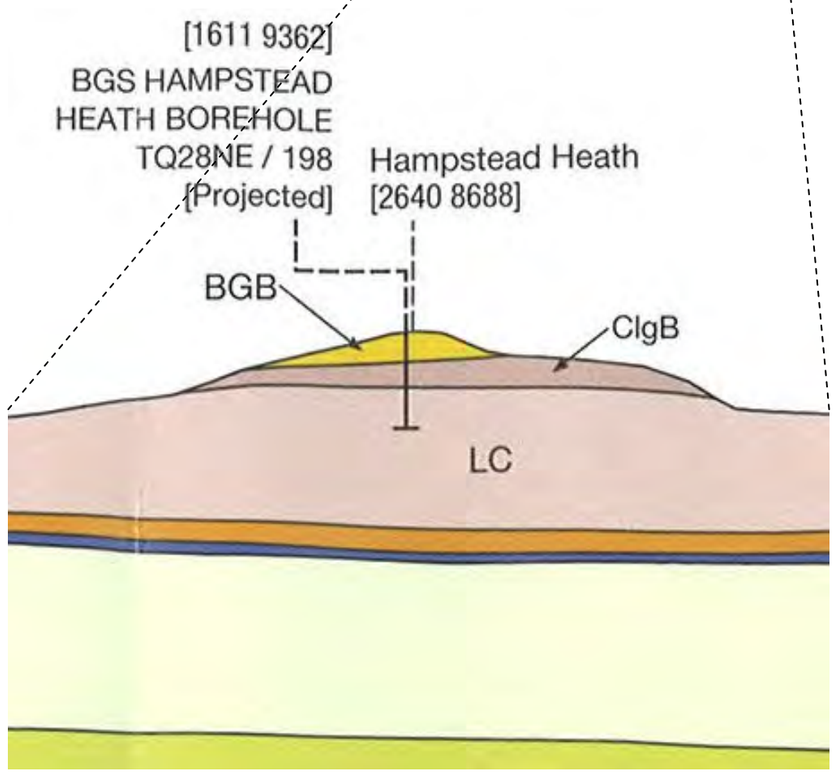
GENERALIZED VERTICAL SECTION

Scale 1:2500 (1 cm to 25 m)







Source - British Geological Society, 1:50,000 Series
England and Wales Sheet 256 – North London

Camden Geological, Hydrogeological and Hydrological Study

Geological Long Section (NW – SE)

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FIGURE 7

524000 526000 528000 530000 532000 534000

188000 186000 184000 182000

Environment Agency Aquifer Designation based on BGS Mapping

N

Scale at A3: 1:30,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

Legend

- Borough of Camden
- Railway Lines
- A Roads

Aquifer Designation

- Secondary A Aquifer
- Unproductive Strata

Source Protection Zone

- Outer Source Protection Zone
- Inner Source Protection Zone

NB. Aquifer boundaries are indicative based on available geological mapping data

Camden Geological, Hydrogeological and Hydrological Study

Camden Aquifer Designation Map

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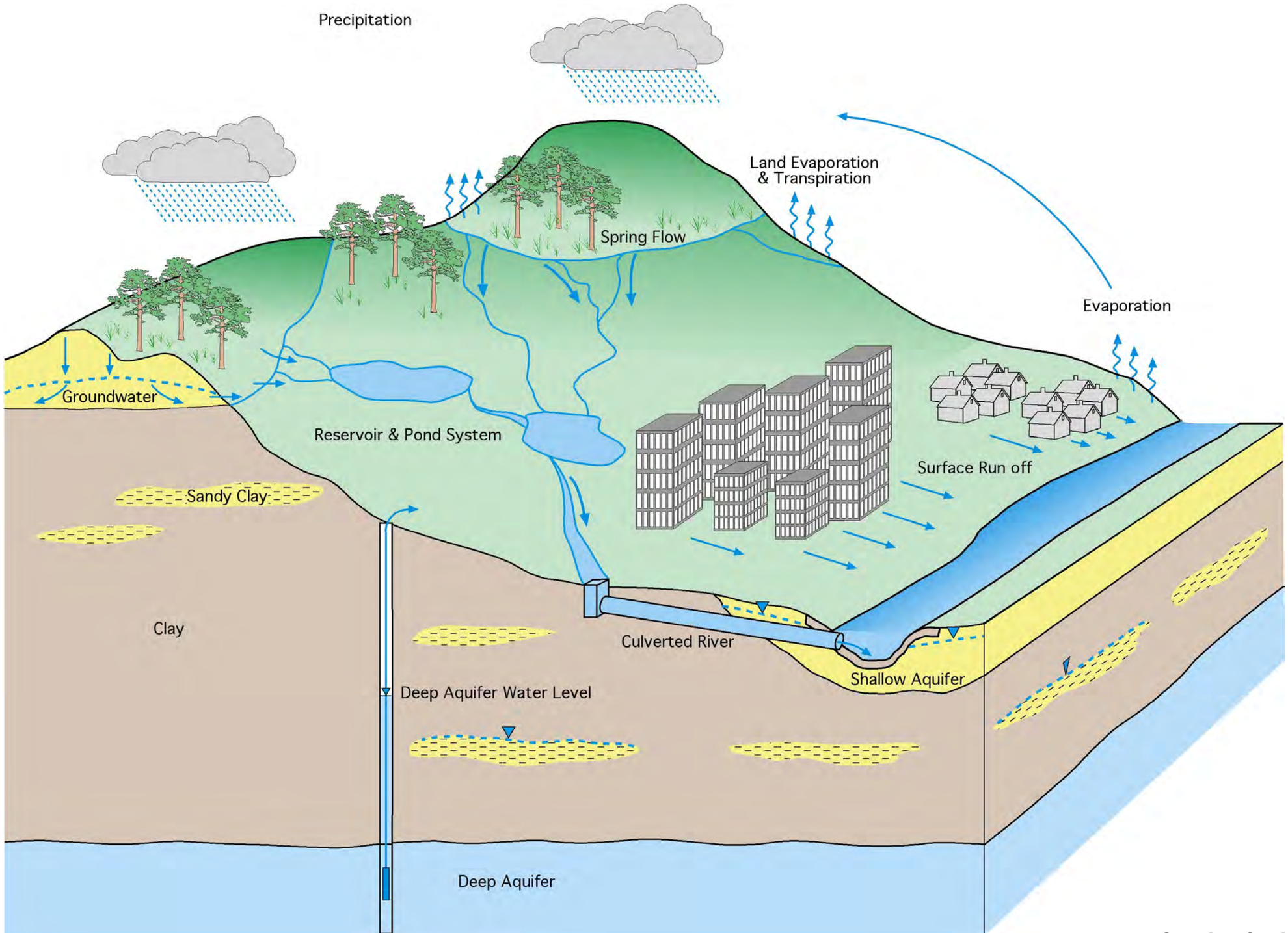
FIGURE 8



Camden Geological, Hydrogeological and Hydrological Study
Conceptual Ground Model

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FIGURE **9**

522000 524000 526000 528000 530000 532000

186000

184000

182000

Topographic map based on digital terrain model provided by Camden Borough Council

N

Scale at A3: 1:30,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.375 0.75 1.5 2.25 3 3.75

Kilometers

Legend

- London Borough of Camden
- Railway Lines
- A Roads

DTM Terrain

* Window Size: 20.000

Elevation

145 - 150	125 - 130	90 - 95	55 - 60	20 - 25
140 - 145	120 - 125	85 - 90	50 - 55	15 - 20
135 - 140	115 - 120	80 - 85	45 - 50	10 - 15
130 - 135	110 - 115	75 - 80	40 - 45	5 - 10
	105 - 110	70 - 75	35 - 40	0 - 5
	100 - 105	65 - 70	30 - 35	-5 - 0
	95 - 100	60 - 65	25 - 30	-7.4 - -5

Camden Geological, Hydrogeological and Hydrological Study

Camden Topographic Map

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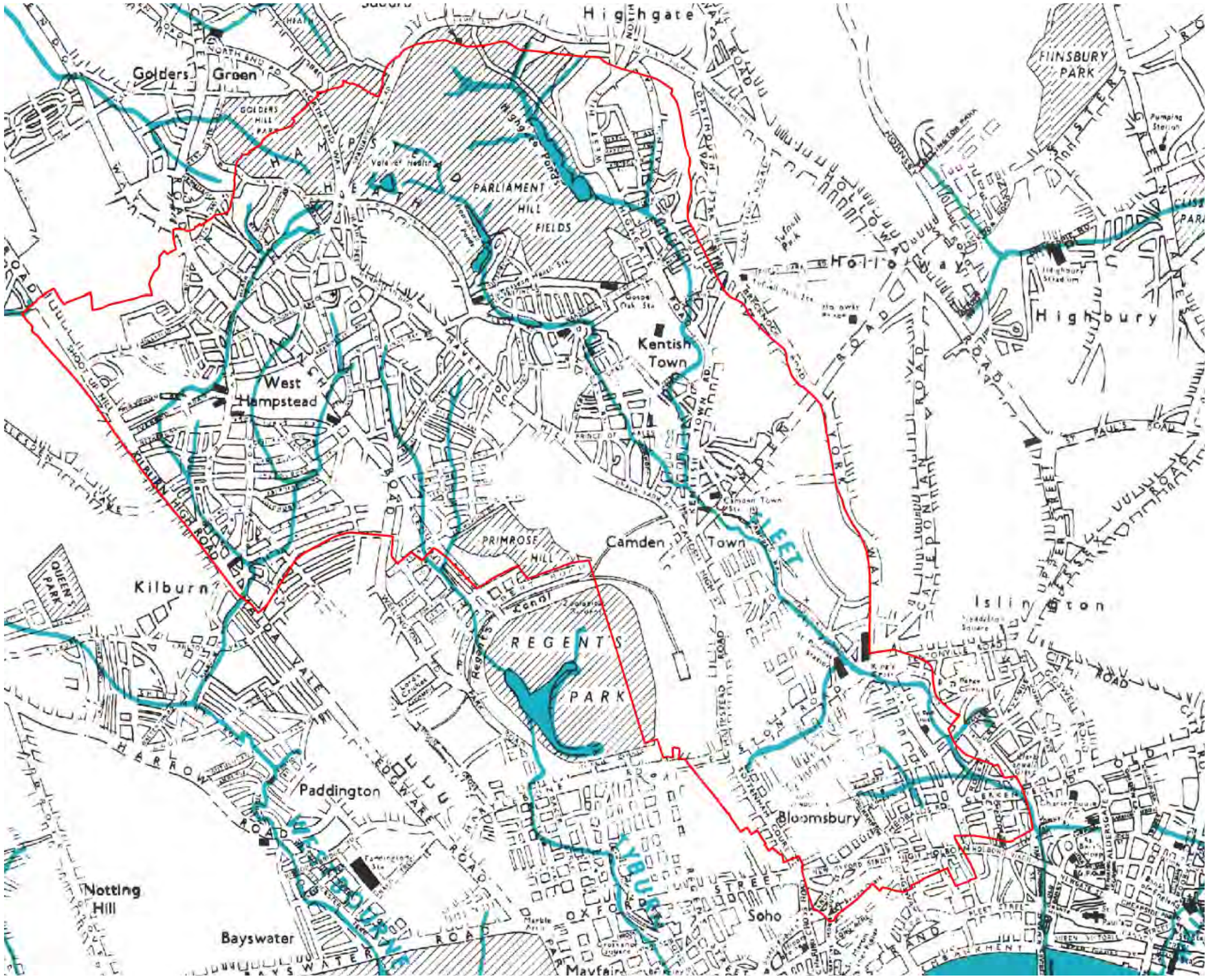
FIGURE **10**



Source – Barton, Lost Rivers of London

Camden Geological, Hydrogeological and Hydrological Study
Watercourses

213923 FIGURE **11**

522000 524000 526000 528000 530000 532000

186000 184000 182000

Data Source: London Borough of Camden, 2010

N

Scale at A3: 1:30,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

Legend

- London Borough of Camden
- Surface water
- Railway Lines
- A Roads

Camden Geological, Hydrogeological and Hydrological Study

Camden Surface Water Features

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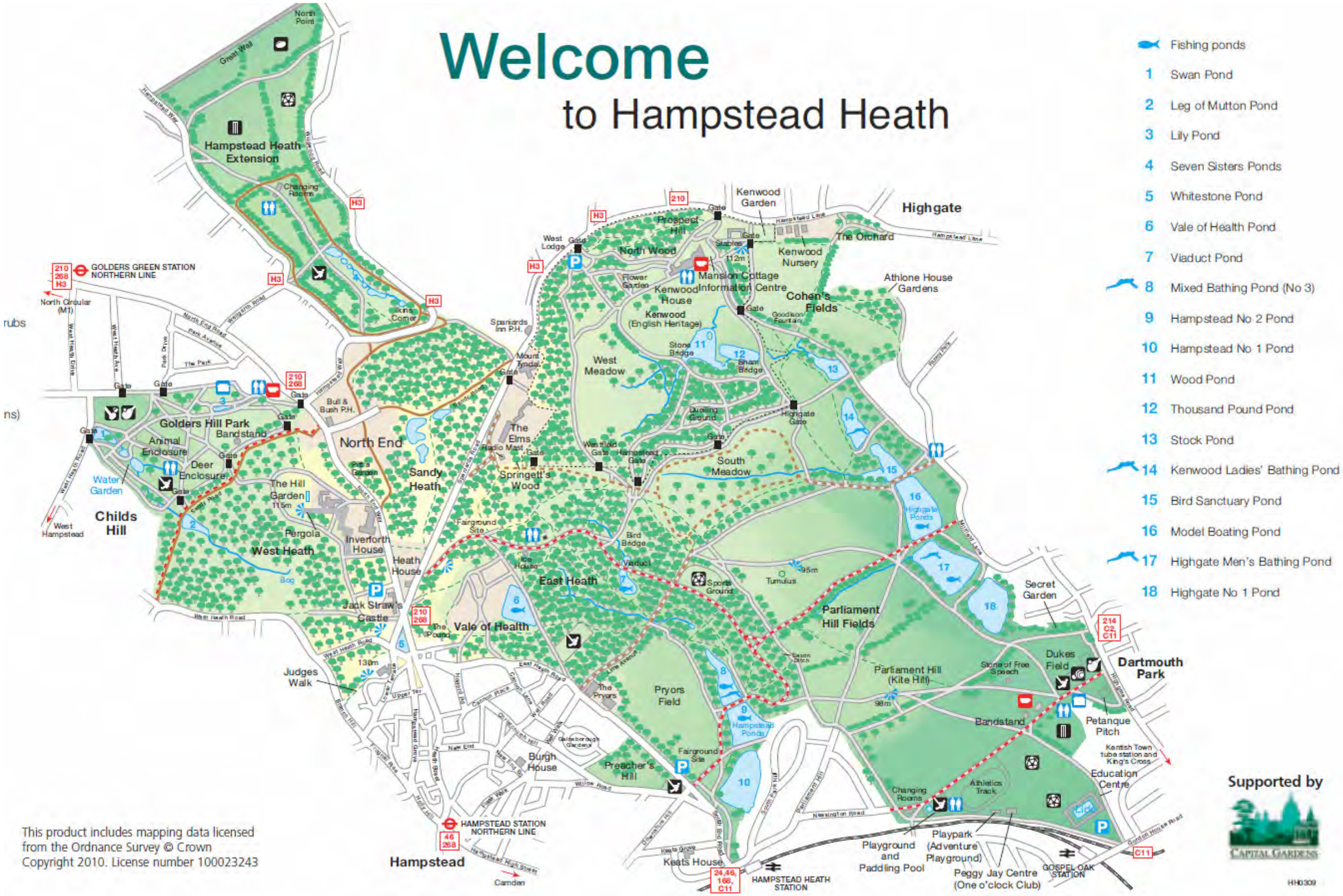
FIGURE **12**



Source – City of London, 2010, Welcome to Hampstead Heath Leaflet

Camden Geological, Hydrogeological and Hydrological Study
Hampstead Heath Map

213923 **FIGURE 13**

526000

528000

188000

186000

Catchments and Drainage after Haycock, 2010

N

Scale at A3: 1:10,000

Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.125 0.25 0.5 0.75 1

Kilometers

Legend

- London Borough of Camden
- Railway Lines
- A Roads
- Surface Water
- Highgate Chain Catchment
- Golders Hill Chain Catchment
- Hampstead Chain Catchment
- Hampstead Heath Extension Chain Catchment

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Hampstead Heath Surface Water Catchments and Drainage

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FIGURE 14

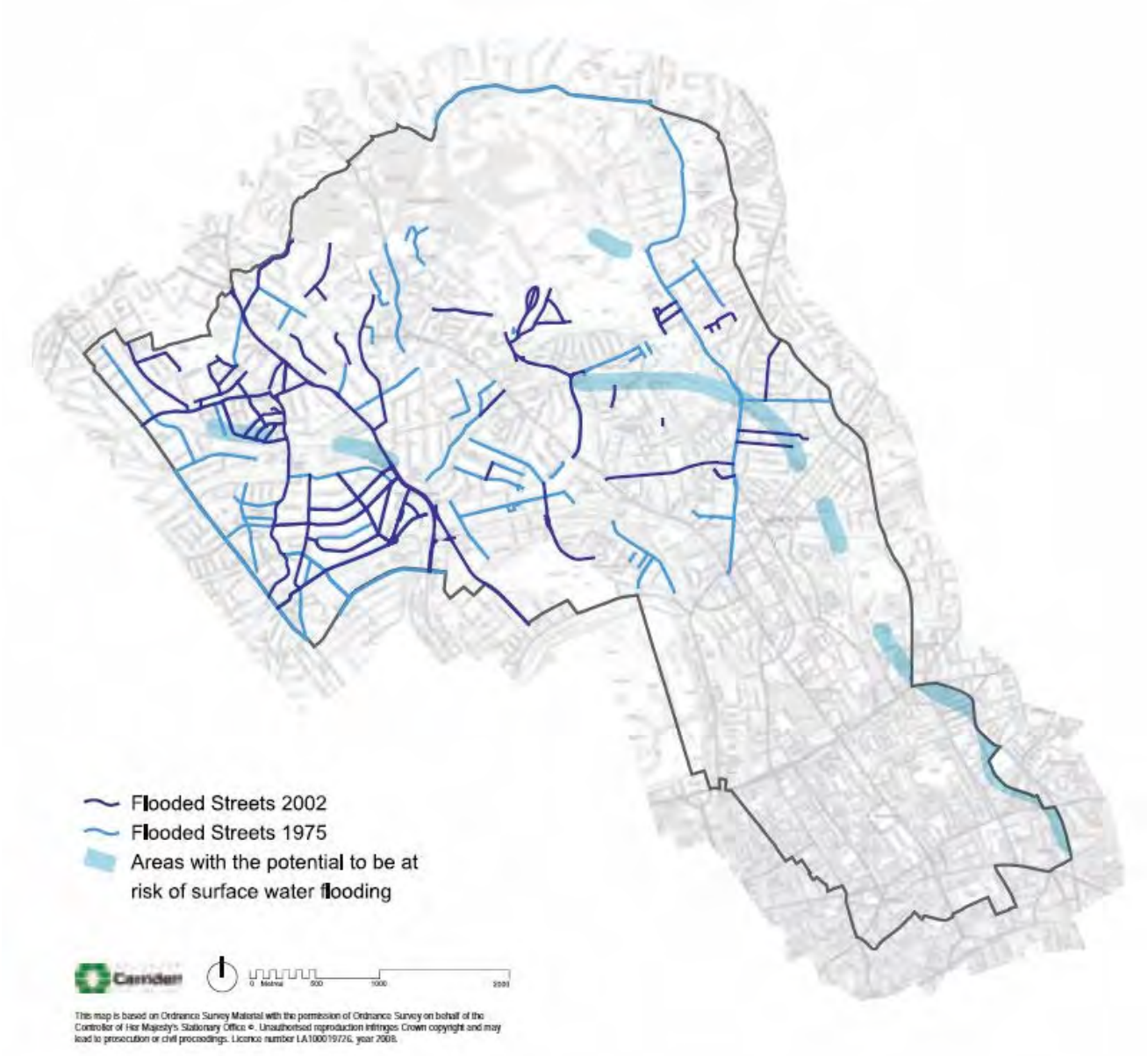

Figure 5 from Core Strategy, London Borough of Camden

Camden Geological, Hydrogeological and Hydrological Study
Flood Map

213923 FIGURE **15**

524000 526000 528000 530000 532000 534000

186000

184000

182000

Slope Angles calculated from Digital Terrain Model Provided By Camden Bourough Council

N

Scale at A3: 1:30,000

1:10,000 BGS Mapping
Coordinate System:
British National Grid
GCS_OSGB_1936

0 0.5 1 2 3
Kilometers

Legend

Slope
- 0° - 7°
- 7° - 10°
- > 10°

London Borough of Camden
Railway Lines
A Roads

BGS 1:10K Artificial Ground
- MADE GROUND
- WORKED GROUND

BGS 1:10K Drift Geology
- ALLUVIUM
- HACKNEY GRAVEL FORMATION
- LANGLEY SILT FORMATION
- LYNCH HILL GRAVEL FORMATION
- STANMORE GRAVEL FORMATION

BGS 1:10K Solid Geology
- BAGSHOT FORMATION
- CLAYGATE MEMBER
- LAMBETH GROUP
- LONDON CLAY FORMATION

NB. Geological boundaries are largely indicative based on available geological mapping data

Camden Geological, Hydrogeological and Hydrological Study

Slope Angle Map

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FIGURE 16

Areas of greatest potential for slope instability

The assessment of the potential for slope instability

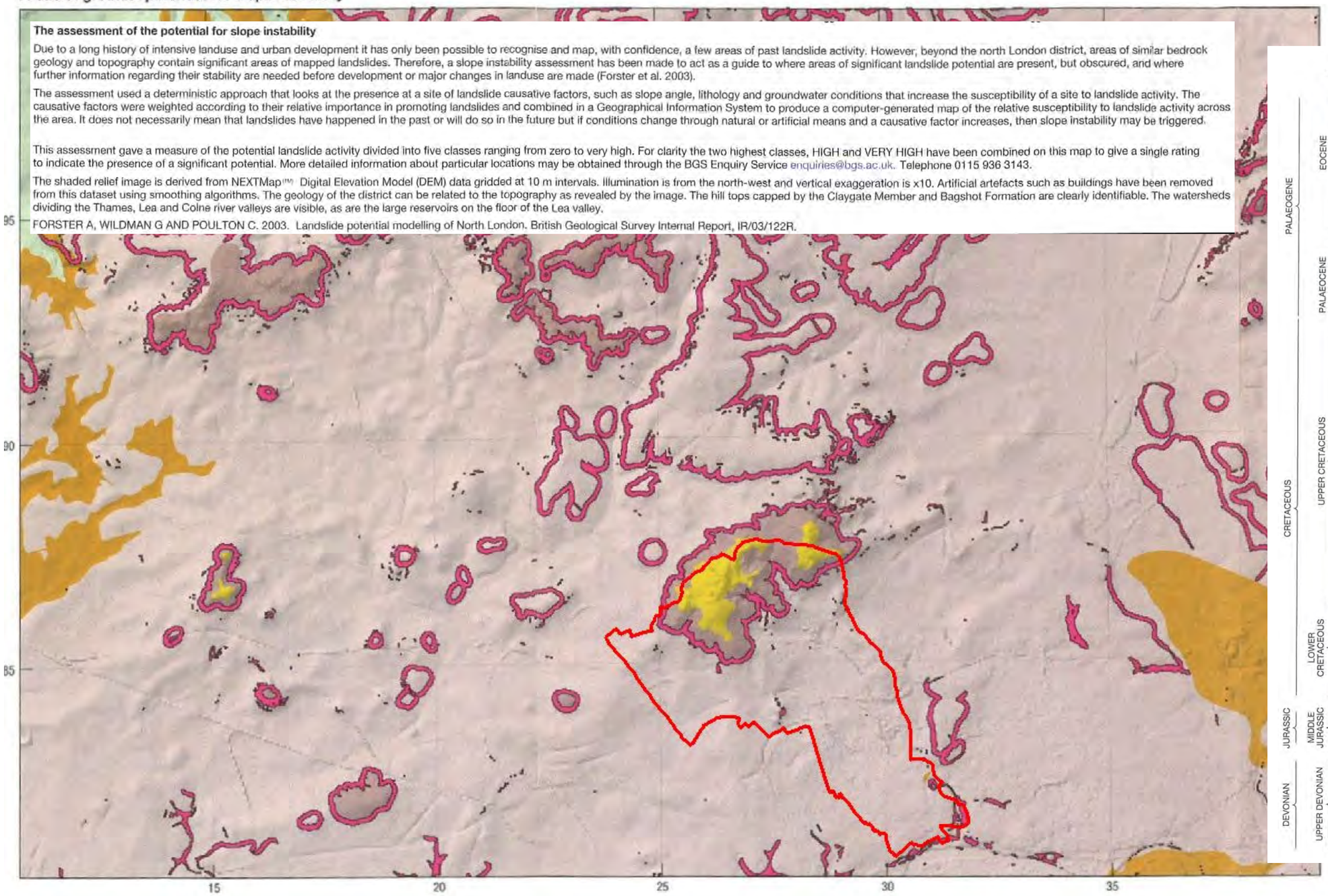
Due to a long history of intensive landuse and urban development it has only been possible to recognise and map, with confidence, a few areas of past landslide activity. However, beyond the north London district, areas of similar bedrock geology and topography contain significant areas of mapped landslides. Therefore, a slope instability assessment has been made to act as a guide to where areas of significant landslide potential are present, but obscured, and where further information regarding their stability are needed before development or major changes in landuse are made (Forster et al. 2003).

The assessment used a deterministic approach that looks at the presence at a site of landslide causative factors, such as slope angle, lithology and groundwater conditions that increase the susceptibility of a site to landslide activity. The causative factors were weighted according to their relative importance in promoting landslides and combined in a Geographical Information System to produce a computer-generated map of the relative susceptibility to landslide activity across the area. It does not necessarily mean that landslides have happened in the past or will do so in the future but if conditions change through natural or artificial means and a causative factor increases, then slope instability may be triggered.

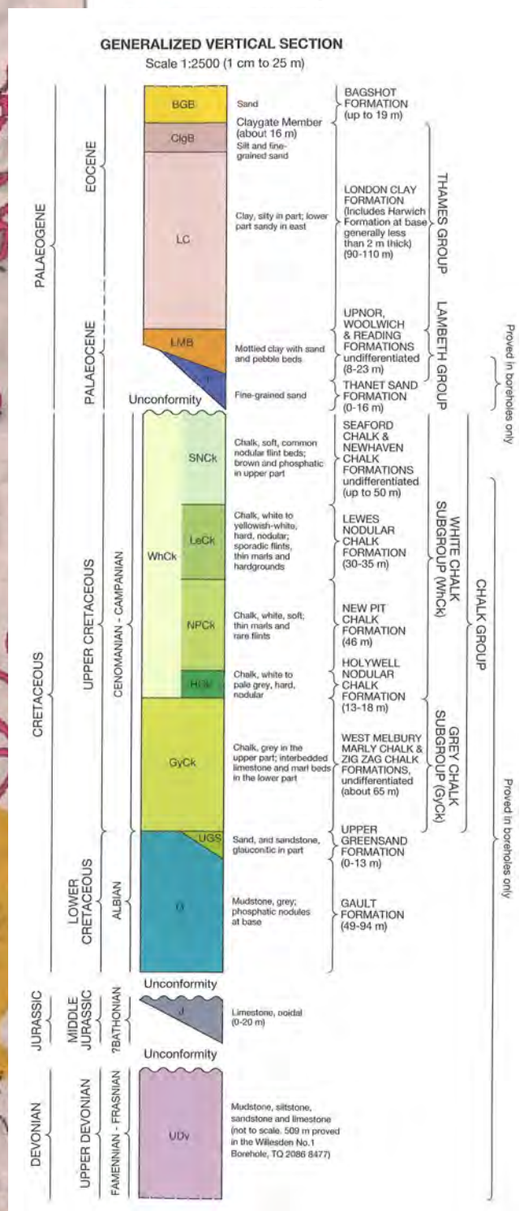
This assessment gave a measure of the potential landslide activity divided into five classes ranging from zero to very high. For clarity the two highest classes, HIGH and VERY HIGH have been combined on this map to give a single rating to indicate the presence of a significant potential. More detailed information about particular locations may be obtained through the BGS Enquiry Service enquiries@bgs.ac.uk. Telephone 0115 936 3143.

The shaded relief image is derived from NEXTMap™ Digital Elevation Model (DEM) data gridded at 10 m intervals. Illumination is from the north-west and vertical exaggeration is x10. Artificial artefacts such as buildings have been removed from this dataset using smoothing algorithms. The geology of the district can be related to the topography as revealed by the image. The hill tops capped by the Claygate Member and Bagshot Formation are clearly identifiable. The watersheds dividing the Thames, Lea and Colne river valleys are visible, as are the large reservoirs on the floor of the Lea valley.

FORSTER A, WILDMAN G AND POULTON C. 2003. Landslide potential modelling of North London. British Geological Survey Internal Report, IR/03/122R.



Areas of significant landslide potential



Source - British Geological Society, 1:50,000 Series
England and Wales Sheet 256 – North London

Camden Geological, Hydrogeological and Hydrological Study
Areas of landslide potential

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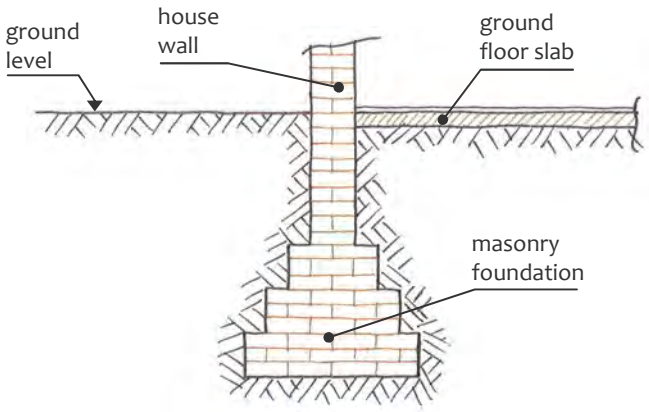
FIGURE 17

Source - London Borough of Camden, January 2010. *Camden Core Strategy Proposed Submission*.

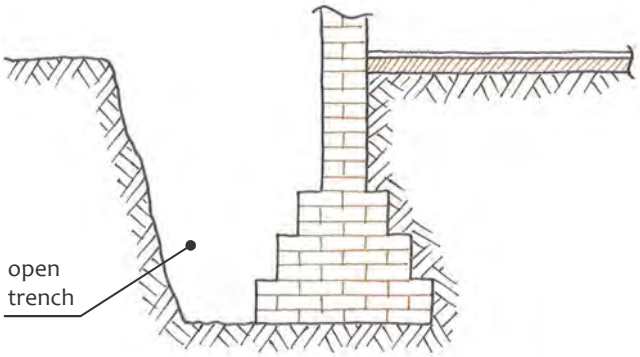
Camden Geological, Hydrogeological and Hydrological Study
Transport Infrastructure

213923 **FIGURE 18**

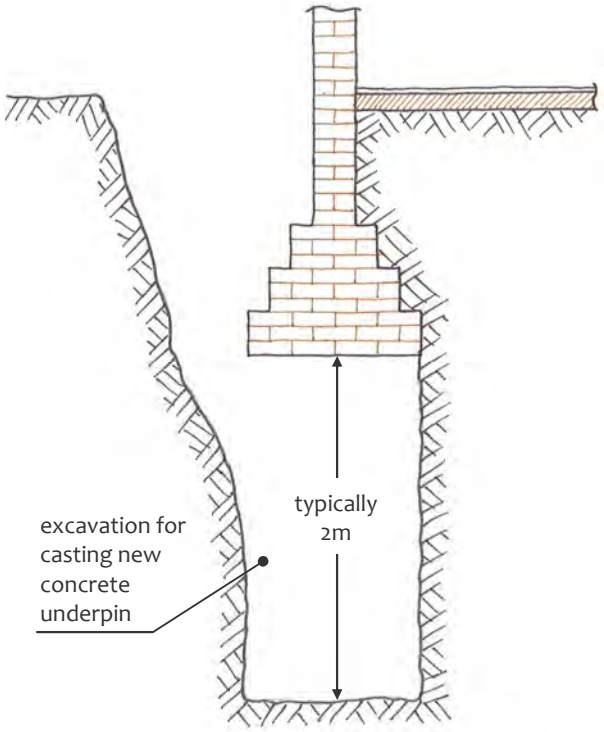
Stage 0: original foundation, typical of houses



Stage 1: exposure of original foundation by digging a short trench along a section of the wall to be underpinned



Stage 2: excavation of pit to form underpin: see Fig. 2.1b for details



Indicative, schematic sketches only.
Actual dimensions are likely to vary.
Not to scale.

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Typical underpinning construction sequence

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FIGURE **19**