



BASEMENT IMPACT ASSESSMENT

APPENDICES 2

**35 BUCKLAND CRESCENT
LONDON NW3 5DJ**

For William Carter Ltd

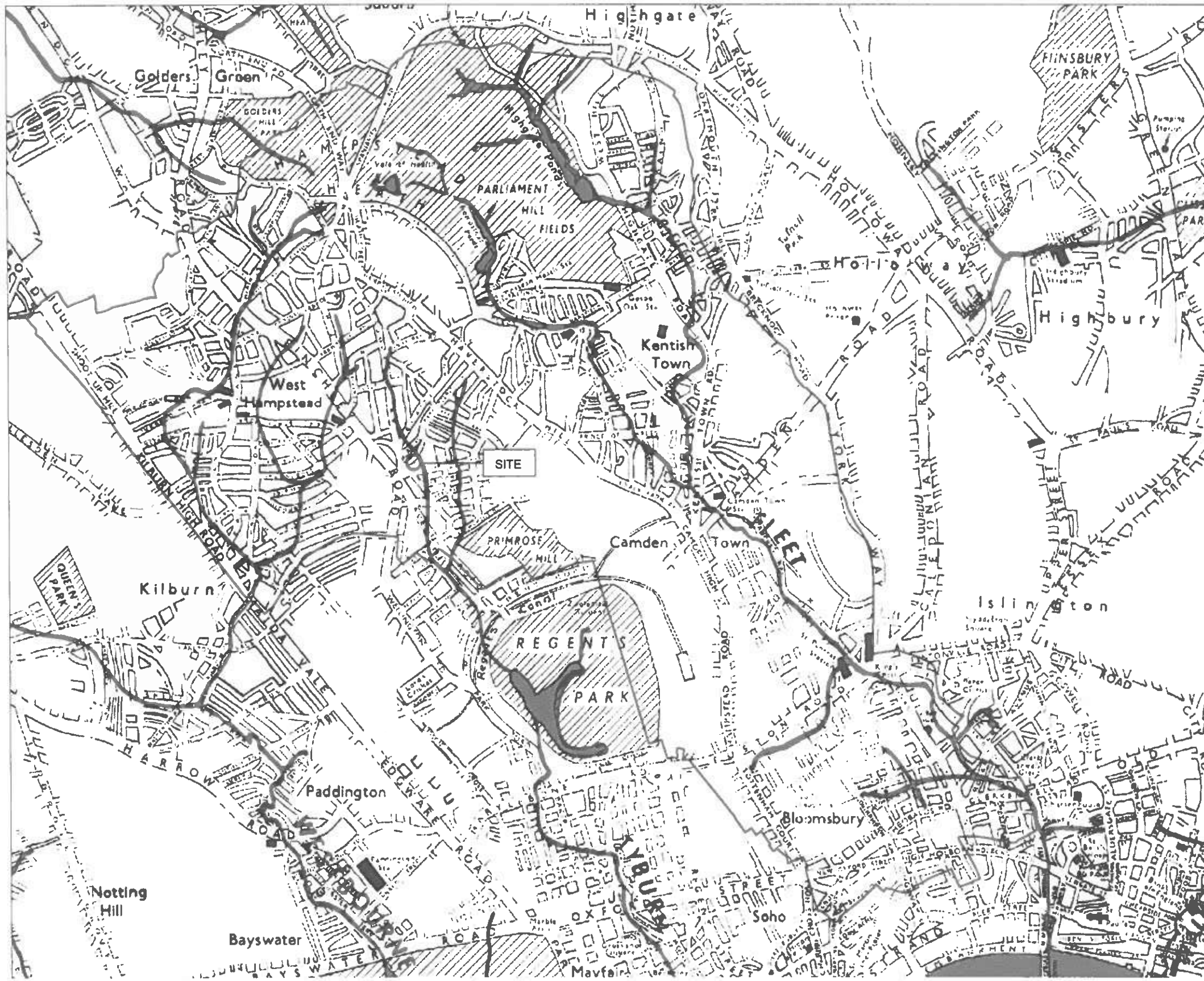
February 2014
Ref: JB15296.1

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Appendix F

Camden Geological, Hydrogeological and Hydrological Study

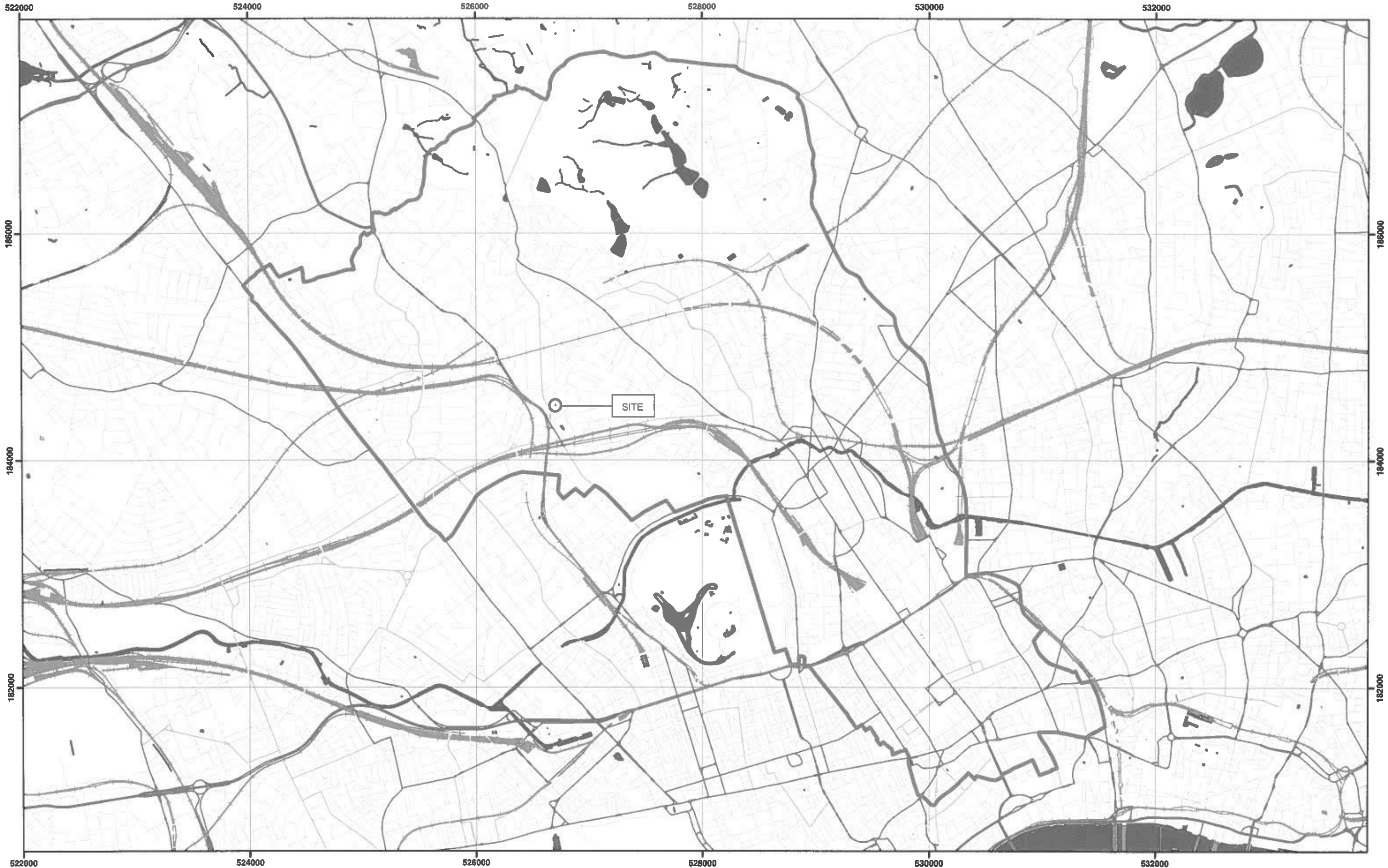


Camden Geological, Hydrogeological
and Hydrological Study
Watercourses

Source – Barton, Lost Rivers of London




213923

FIGURE 11



Scale at A3: 1:30,000

Coordinate System:
British National Grid
GCS_OSGB_1936

- Legend**
-  London Borough of Camden
 -  Railway Lines
 -  A Roads







**Camden Geological, Hydrogeological
and Hydrological Study**

213923

FIGURE **12**

Welcome to Hampstead Heath



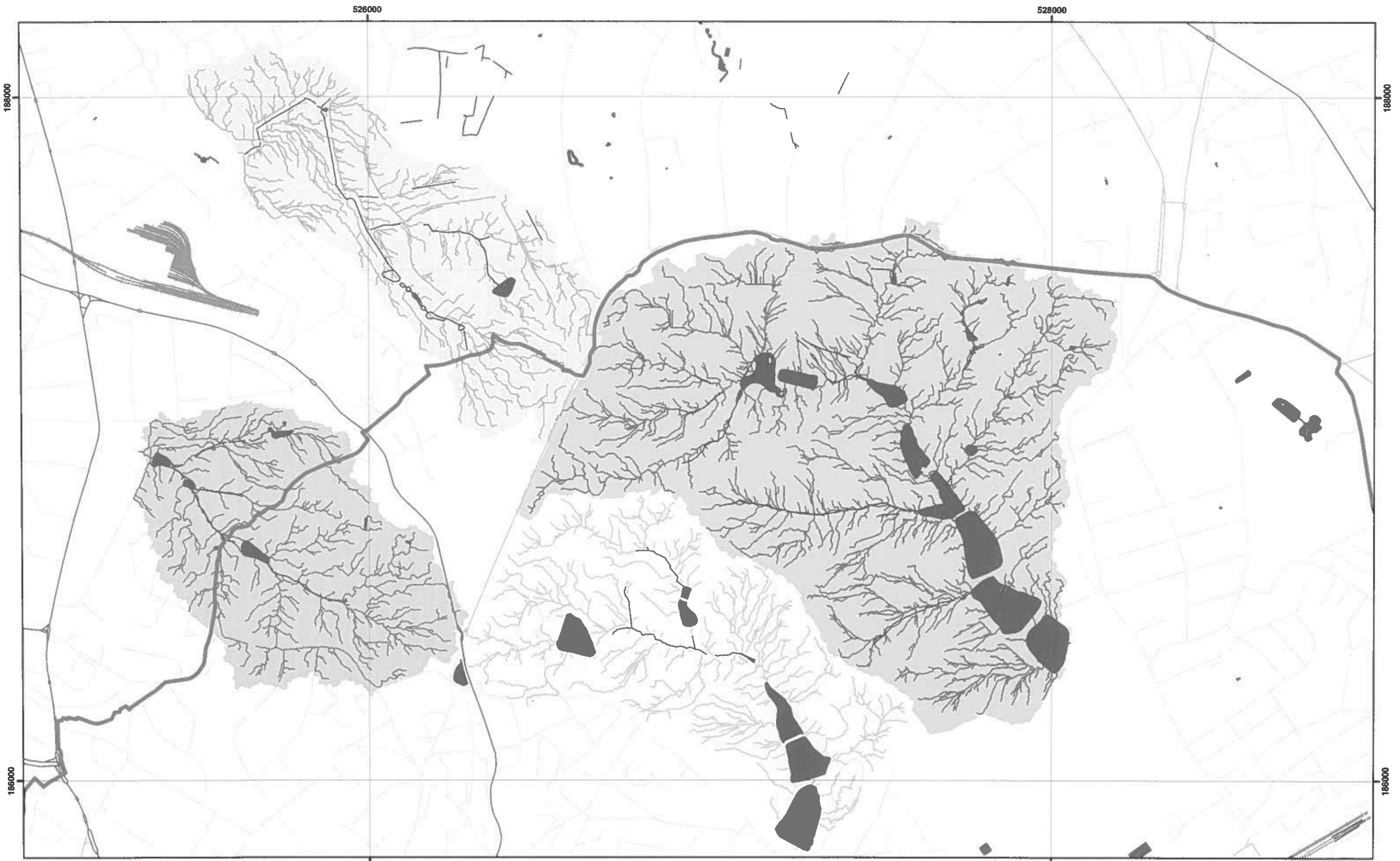
-  Fishing ponds
- 1 Swan Pond
- 2 Leg of Mutton Pond
- 3 Lily Pond
- 4 Seven Sisters Ponds
- 5 Whitestone Pond
- 6 Vale of Heath Pond
- 7 Viaduct Pond
-  8 Mixed Bathing Pond (No 3)
- 9 Hampstead No 2 Pond
- 10 Hampstead No 1 Pond
- 11 Wood Pond
- 12 Thousand Pound Pond
- 13 Stock Pond
-  14 Kenwood Ladies' Bathing Pond
- 15 Bird Sanctuary Pond
- 16 Model Boating Pond
-  17 Highgate Men's Bathing Pond
- 18 Highgate No 1 Pond

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Supported by



**Camden Geological, Hydrogeological and Hydrological Study
Hampstead Heath Map**



Catchments and Drainage after Haycock, 2010

Scale at A3: 1:10,000

Coordinate System:
British National Grid
GCS_OSGB_1936



- 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

**Camden Geological, Hydrogeological
and Hydrological Study**
Hampstead Heath Surface Water
Catchments and Drainage

213923

FIGURE **14**

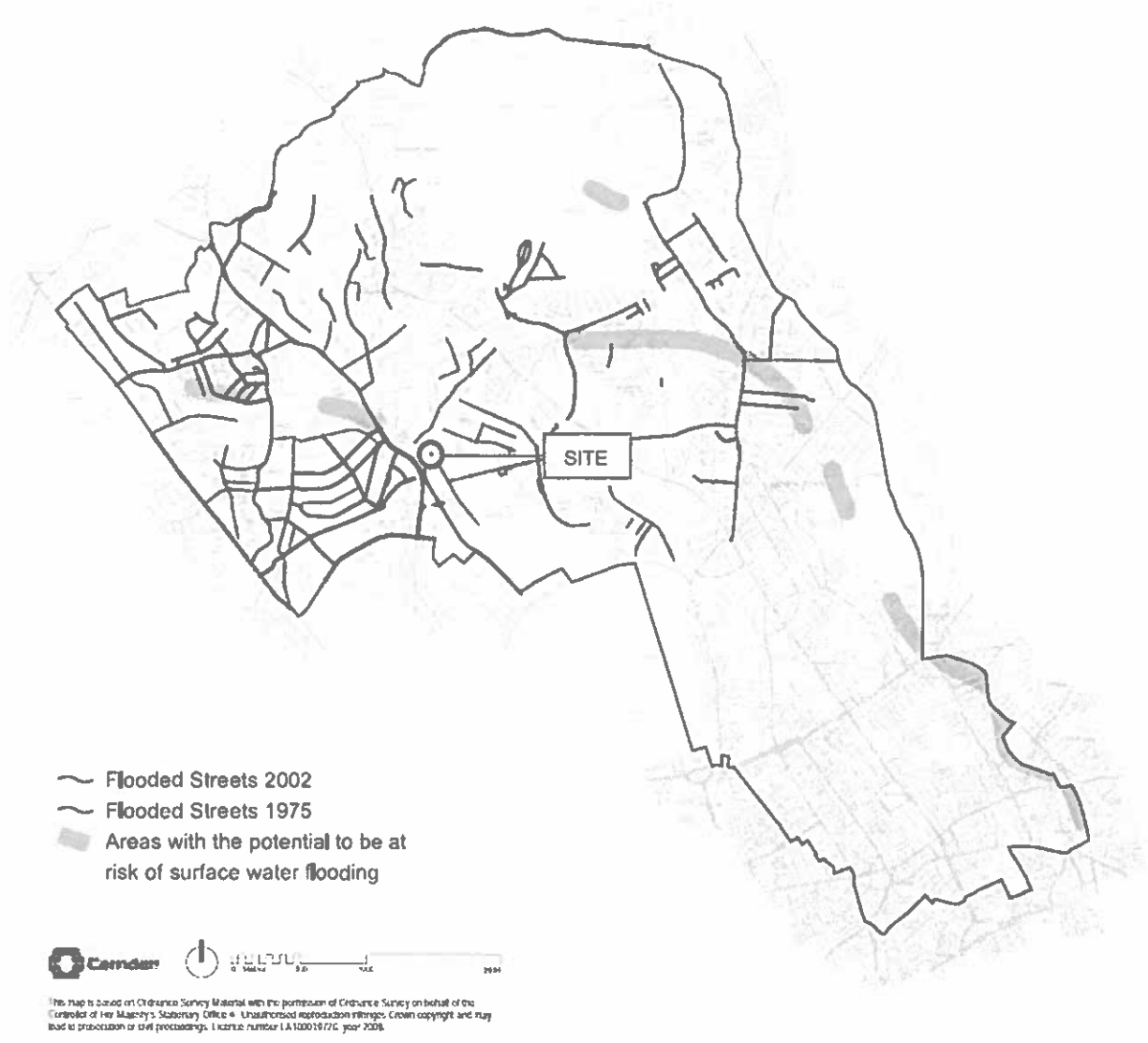


Figure 5 from Core Strategy, London Borough of Camden

**Camden Geological, Hydrogeological and Hydrological Study
Flood Map**

213923

FIGURE 15

524000

526000

528000

530000

532000

534000

186000

186000

184000

184000

182000

182000

524000

526000

528000

530000

532000

534000



Scale at A3: 1:30,000

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



Kilometers

Legend

- London Borough of Camden
- Railway Lines
- A Roads

- 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

Camden Geological, Hydrogeological and Hydrological Study

213923

FIGURE

16

Areas of greatest potential for slope instability

The assessment of the potential for slope instability

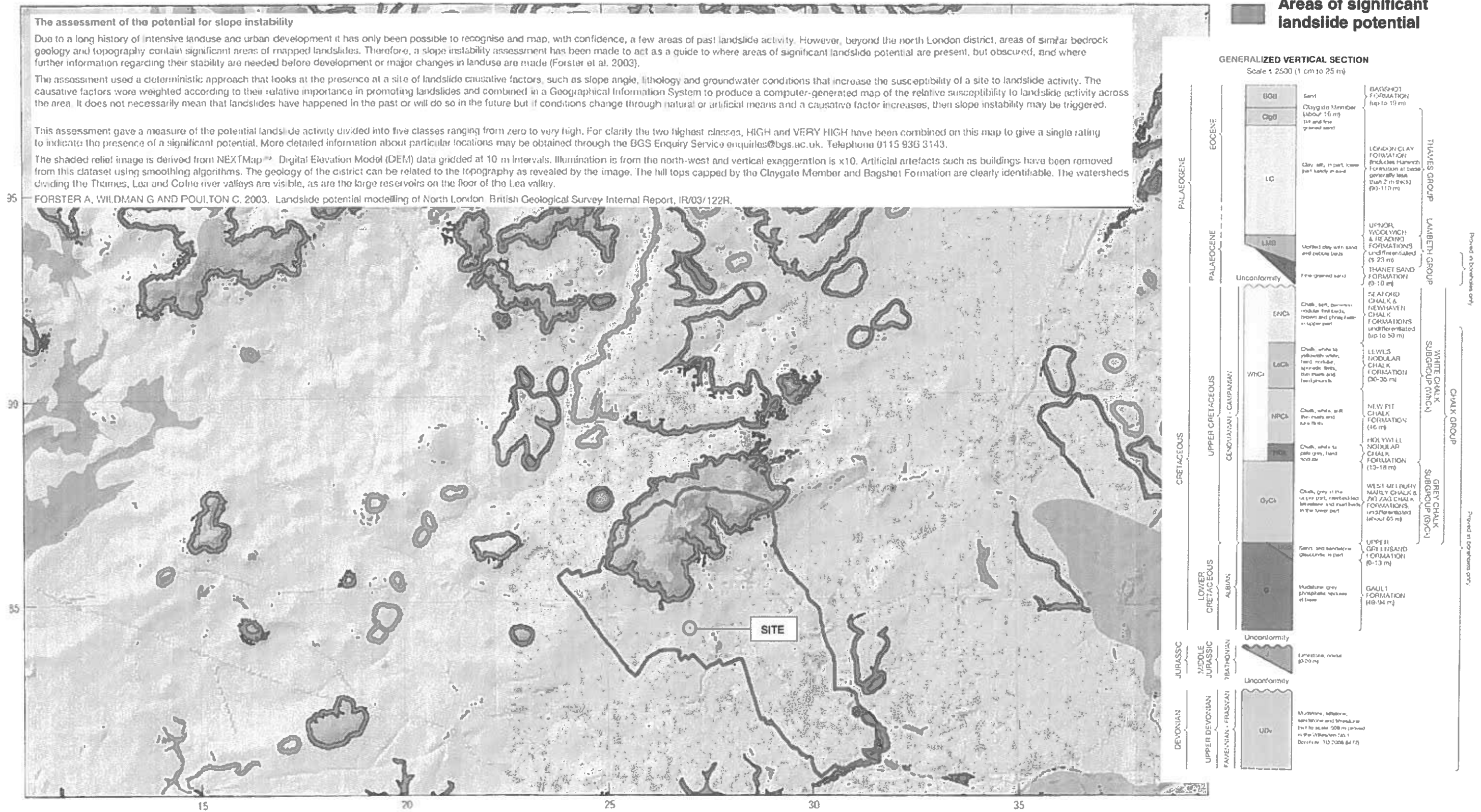
Due to a long history of intensive landuse and urban development it has only been possible to recognise and map, with confidence, a few areas of past landslide activity. However, beyond the north London district, areas of similar bedrock geology and topography contain significant areas of mapped landslides. 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.

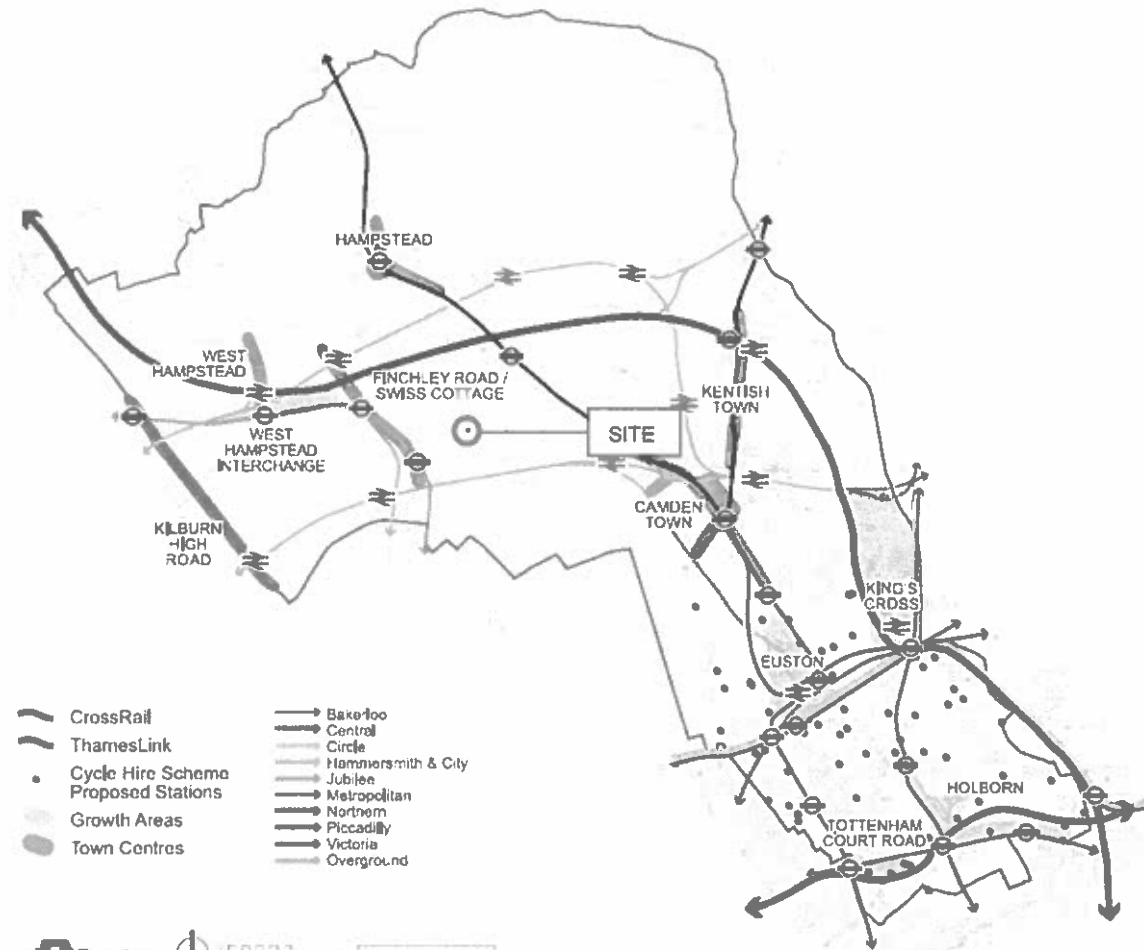
This assessment gave a measure of the potential landslide activity divided into five classes ranging from zero to very high. For clarity the two highest classes, HIGH and VERY HIGH have been combined on this map to give a single rating to indicate the presence of a significant potential. More detailed 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, IR03/122R.



Camden Geological, Hydrogeological and Hydrological Study
Areas of landslide potential



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Appendix G Historic Maps

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

- Gravel Pit
- Sand Pit
- Other Pits
- Quarry
- Shingle
- Orchard
- Osiers
- Reeds
- Marsh
- Mixed Wood
- Deciduous
- Brushwood
- Fir
- Furze
- Rough Pasture
- Arrow denotes flow of water
- Trigonometrical Station
- Site of Antiquities
- Bench Mark
- Pump, Guide Post, Signal Post
- Well, Spring, Boundary Post
- 285** Surface Level
- Sketched Contour
- Instrumental Contour
- Main Roads**
 - Fenced
 - Un-Fenced
- Minor Roads**
 - Fenced
 - Un-Fenced
- Sunken Road
- Raised Road
- Road over Railway
- Railway over River
- Railway over Road
- Level Crossing
- Road over River or Canal
- Road over Stream
- Road over Stream
- County Boundary (Geographical)
- County & Civil Parish Boundary
- Administrative County & Civil Parish Boundary
- Co. Boro. Bdy. County Borough Boundary (England)
- Co. Burgh Bdy. County Burgh Boundary (Scotland)
- RD. Bdy. Rural District Boundary
- Civil Parish Boundary

Ordnance Survey Plan 1:10,000

- Chalk Pit, Clay Pit or Quarry
- Gravel Pit
- Sand Pit
- Disused Pit or Quarry
- Refuse or Slag Heap
- Lake, Loch or Pond
- Dunes
- Boulders
- Coniferous Trees
- Non-Coniferous Trees
- Orchard
- Scrub
- Coppice
- Bracken
- Heath
- Rough Grassland
- Marsh
- Reeds
- Saltings
- Building
- Glasshouse
- Sloping Masonry
- Pylon
- Electricity Transmission Line
- Pole
- Cutting
- Embankment
- Standard Gauge Multiple Track
- Standard Gauge Single Track
- Siding, Tramway or Mineral Line
- Narrow Gauge
- Road Under
- Road Over
- Level Crossing
- Foot Bridge
- Geographical County
- Administrative County, County Borough or County of City
- Municipal Borough, Urban or Rural District, Burgh or District Council
- Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
- Civil Parish
Shown alternately when coincidence of boundaries occurs
- BP, BS** Boundary Post or Stone
- Ch** Church
- CH** Club House
- F E Sta** Fire Engine Station
- FB** Foot Bridge
- Fn** Fountain
- GP** Guide Post
- MP** Mile Post
- MS** Mile Stone
- Pol Sta** Police Station
- PO** Post Office
- PC** Public Convenience
- PH** Public House
- SB** Signal Box
- Spr** Spring
- TCP** Telephone Call Box
- TCP** Telephone Call Post
- W** Well

1:10,000 Raster Mapping

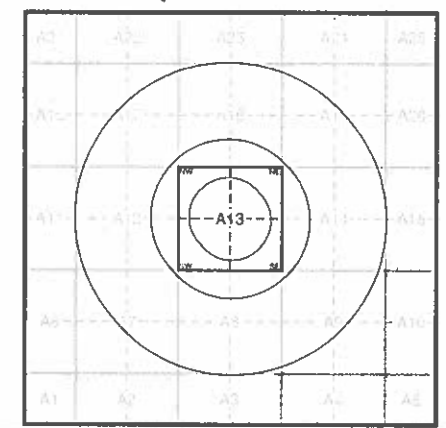
- Gravel Pit
- Rock
- Boulders
- Shingle
- Sand
- Slopes
- General detail
- Overhead detail
- Multi-track railway
- County boundary (England only)
- District, Unitary, Metropolitan, London Borough boundary
- Area of wooded vegetation
- Non-coniferous trees (scattered)
- Coniferous trees (scattered)
- Orchard
- Rough Grassland
- Scrub
- Water feature
- MHW(S) Mean high water (springs)
- Telephone line (where shown)
- Bench mark (where shown)
- Point feature (e.g. Guide Post or Mile Stone)
- Site of (antiquity)
- General Building
- Refuse tip or slag heap
- Rock (scattered)
- Boulders (scattered)
- Mud
- Sand Pit
- Top of cliff
- Underground detail
- Narrow gauge railway
- Single track railway
- Civil, parish or community boundary
- Constituency boundary
- Non-coniferous trees
- Coniferous trees
- Positioned tree
- Coppice or Osiers
- Heath
- Marsh, Salt Marsh or Reeds
- Flow arrows
- MLW(S) Mean low water (springs)
- Electricity transmission line (with poles)
- Triangulation station
- Pylon, flare stack or lighting tower
- Glasshouse
- Important Building



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1873 - 1882	3
Middlesex	1:10,560	1876	4
London	1:10,560	1886	5
Essex	1:10,560	1820	6
London	1:10,560	1820	7
London	1:10,560	1838	6
Essex	1:10,560	1838	6
Historical Aerial Photography	1:10,560	1850	10
Ordnance Survey Plan	1:10,000	1851	11
Ordnance Survey Plan	1:10,000	1857 - 1858	12
Ordnance Survey Plan	1:10,000	1868	13
Ordnance Survey Plan	1:10,000	1874 - 1876	14
London	1:25,000	1885	15
Ordnance Survey Plan	1:10,000	1881 - 1886	16
10K Raster Mapping	1:10,000	2006	17
10K Raster Mapping	1:10,000	2013	18

Historical Map - Slice A



Order Details

Order Number: 52695727_1_1
 Customer Ref: 35 Buckland
 National Grid Reference: 526760, 184490
 Slice: A
 Site Area (Ha): 0.05
 Search Buffer (m): 1000

Site Details

Flat 2-3, 35 Buckland Crescent, LONDON, NW3 5DJ



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 Fax: 0844 844 9951
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Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings
Military and Industrial Buildings
Military and Communication Areas
Subway Entrance
Fireproof Building
Prominent Fireproof Building
Non-fireproof Building
Non-fireproof Building (non-dwelling)
Factory, mill, and flour mill, with chimneys
Factory, mill, and flour mill, without chimneys
Power Station, drawn to scale
Hydroelectric Power Station
Radio Station, drawn to scale
Telephone Station, drawn to scale
Abandoned Open-pit Mine or Quarry
Open-pit Salt Mine
Pit
Oil Deposit or Well
Oil Seepage
Tailings Pile
Fuel Storage Tanks
Natural Gas Tank
Bench Mark
Drill Hole
Burial Mound
Triangulation Point on Burial Mound
Single-track Railroad
Railroad and Station Building
Coniferous Forest
Deciduous Forest
Mixed Forest
Lawns
Citrus Orchard
Wet Ground
Scattered Vegetation

243,8 Values for prominent elevations
186.0 Numbers for spot elevations, depth soundings, contour lines, etc.
0.2 Velocity of the current, width of river bed, depth of river
Fractional terms: length and capacity of bridges; depth of fords and condition of the river bottom; height of forest and the diameter of trees

Russian Alphabet (For reference and phonetic interpretation of map text)

А а (A)	З з (Z)	П п (P)	Ч ч (CH)
Б б (B)	И и (I)	Р р (R)	Ш ш (SH)
В в (V)	Й й (Y)	С с (S)	Щ щ (SHCH)
Г г (G)	К к (K)	Т т (T)	Ъ (-)
Д д (D)	Л л (L)	У у (U)	Ы (Y)
Е е (E)	М м (M)	Ф ф (F)	Ь (')
Ё ё (YO)	Н н (N)	Х х (KH)	Э э (E)
Ж ж (ZH)	О о (O)	Ц ц (TS)	Ю ю (YU or IU)
			Я я (YA or IA)

1:25,000 mapping

a. Not drawn to scale b. Drawn to scale

Government and Administrative Buildings
Military and Industrial Buildings
Military and Communication Areas
Subway Entrance
Partly Demolished Buildings
Demolished Buildings
Built-Up Area with Fireproof Buildings Predominant
Built-Up Area with Non-Fireproof Buildings Predominant
Individual Fireproof Building
Prominent Industrial Building
Individual Dwelling, Fireproof
Ruins of Individual Dwelling
Factory or Mill Chimney
Factory or Mill with Chimney
Factory or Mill without Chimney
Mine or Open Pit Mine
Operating Shaft or Mine
Non-Operating Shaft or Mine
Salt Mine
Tailings Pile
Pit
Stone Quarry
Gas Pump or Service Station
Fuel Storage or Natural Gas Tank
Oil or Natural Gas Derrick
Small Hydroelectric Power Station
Power Station
Transformer Station
Cemetery
Burial Mound (height in metres)
Triangulation Point on Burial Mound
Triangulation Point
Bench Mark
Bench Mark (monumented)
Telegraph Office
Telephone Station
Radio Station
Radio Tower
Airfield or Seaplane Base
Landing Strip
Cut
Fill
Km Post
Plantings
Telegraph/Telephone Lines
Width of Road
Main Highway
Steep Grade
Highway under Construction
Improved Dirt Road (former truck road)
Dismantled Railroad
Railroad Under Construction
Double-track Railroad with First Class Station
Shore Embankment
River or Ditch with Embankment
Water Gauge
Direction and velocity of current
Water Level Mark
Well
Water Reservoir
Rain Water Pit
Spring
Isobath with value
Heavy (Index) Contour Line
Contour Line end Value
Half Contour Line
Spot Elevation Value
Coniferous
Deciduous
Mixed
Scrub

Key to Numbers on Mapping

TQ28_London

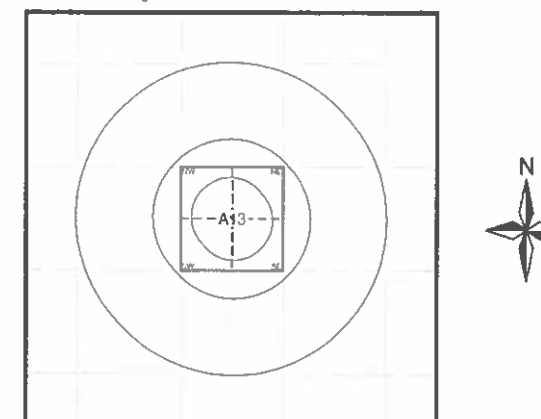
No.	Description
236	Military Barracks



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Middlesex	1:10,560	1873 - 1882	3
Middlesex	1:10,560	1878	4
London	1:10,560	1896	5
Essex	1:10,560	1920	6
London	1:10,560	1820	7
London	1:10,560	1838	8
Essex	1:10,560	1838	8
Historical Aerial Photography	1:10,560	1850	10
Ordnance Survey Plan	1:10,000	1851	11
Ordnance Survey Plan	1:10,000	1857 - 1858	12
Ordnance Survey Plan	1:10,000	1968	13
Ordnance Survey Plan	1:10,000	1874 - 1878	14
London	1:25,000	1885	15
Ordnance Survey Plan	1:10,000	1981 - 1998	18
10K Raster Mapping	1:10,000	2006	17
10K Raster Mapping	1:10,000	2013	18

Russian Map - Slice A



Order Details

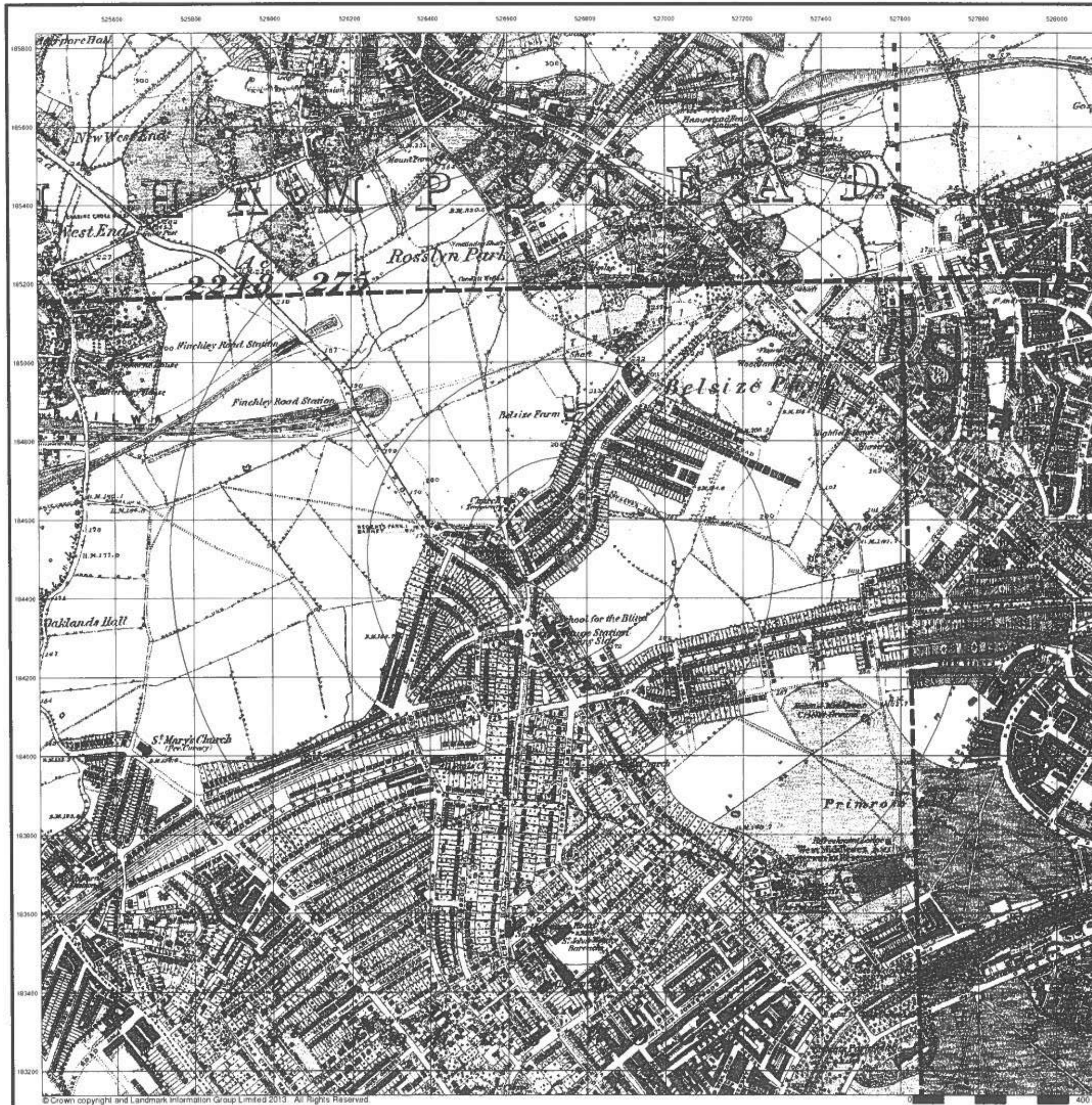
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Customer Ref: 35 Buckland
National Grid Reference: 526760, 184490
Slice: A
Site Area (Ha): 0.05
Search Buffer (m): 1000

Site Details

Flat 2-3, 35 Buckland Crescent, LONDON, NW3 5DJ



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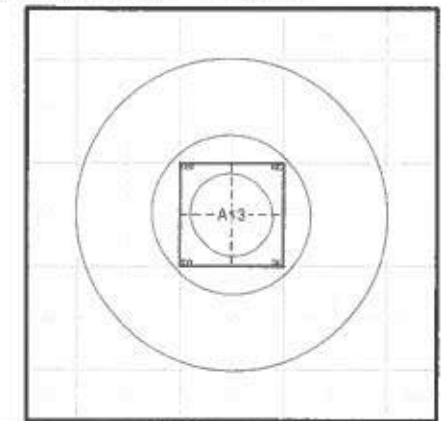
Middlesex
Published 1873 - 1882
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

01100 1873 1:10,560	01200 1873 1:10,560
01600 1874 1:10,560	01700 1882 1:10,560

Historical Map - Slice A



Order Details

Order Number: 52695727_1_1
 Customer Ref: 35 Buckland
 National Grid Reference: 526760, 184490
 Slice: A
 Site Area (Ha): 0.05
 Search Buffer (m): 1000

Site Details

Flat 2-3, 35 Buckland Crescent, LONDON, NW3 5DJ



Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



London

Published 1896

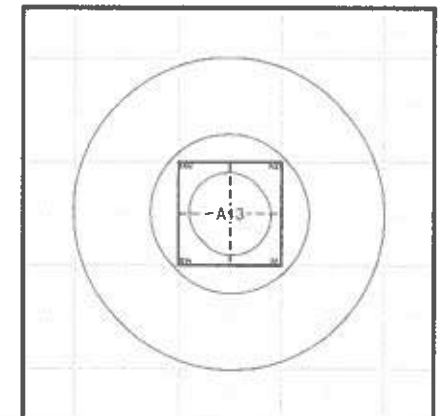
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

002SE 1896 1:10,560	003SW 1896 1:10,560
006NE 1896 1:10,560	007NW 1896 1:10,560

Historical Map - Slice A



Order Details

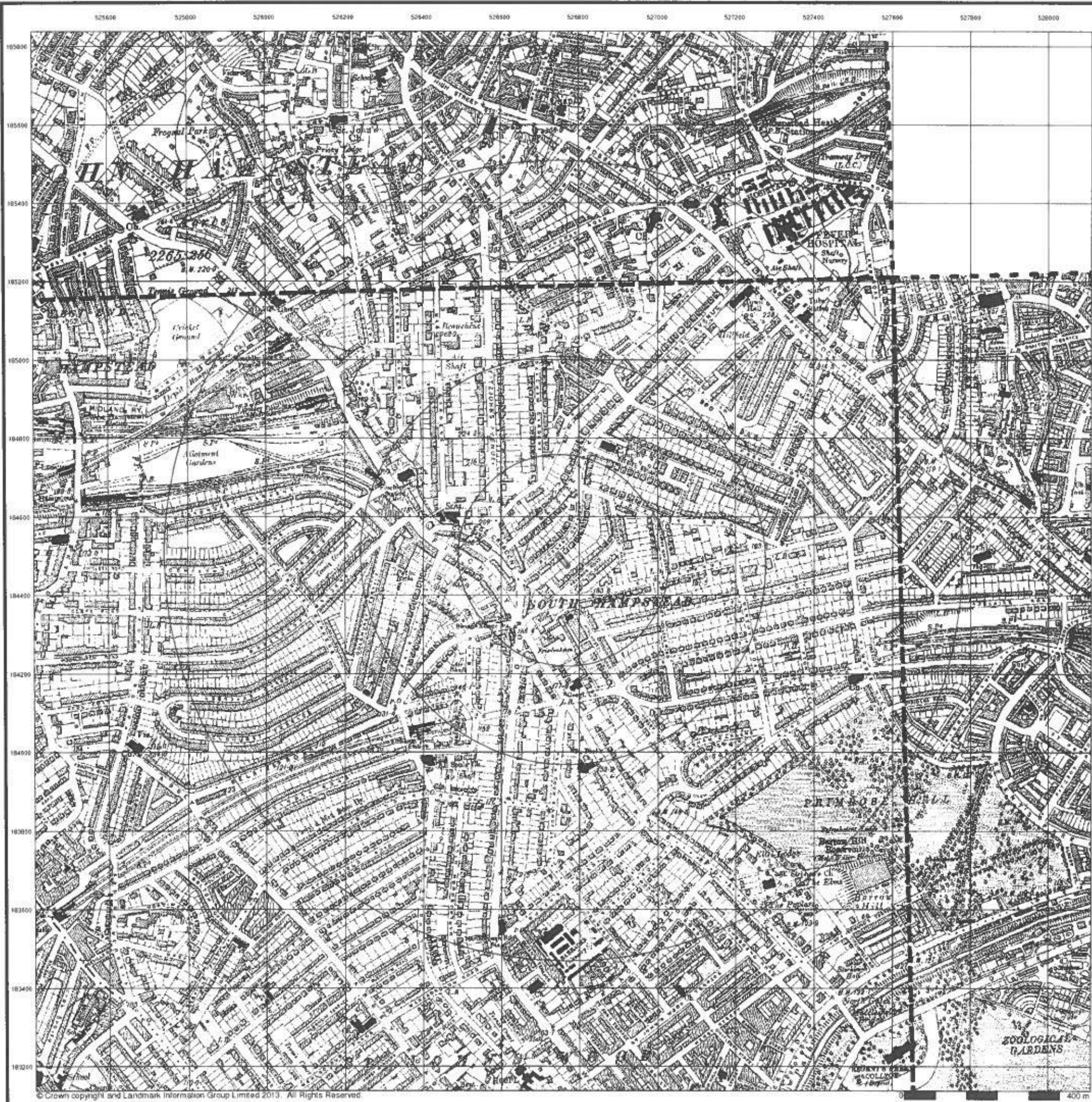
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Site Details

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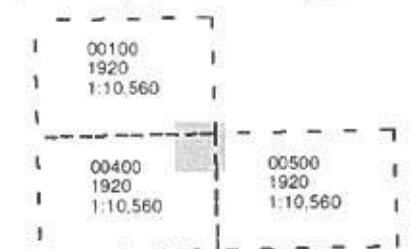
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk



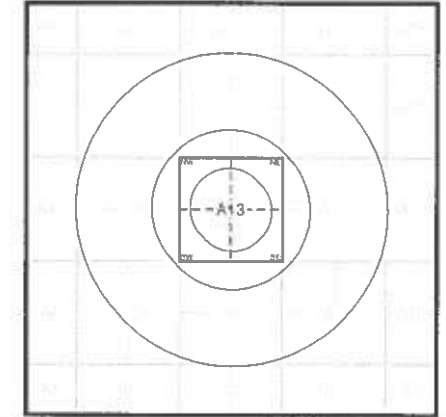
London
Published 1920
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 52695727_1_1
 Customer Ref: 35 Buckland
 National Grid Reference: 526760, 184490
 Slice: A
 Site Area (Ha): 0.05
 Search Buffer (m): 1000

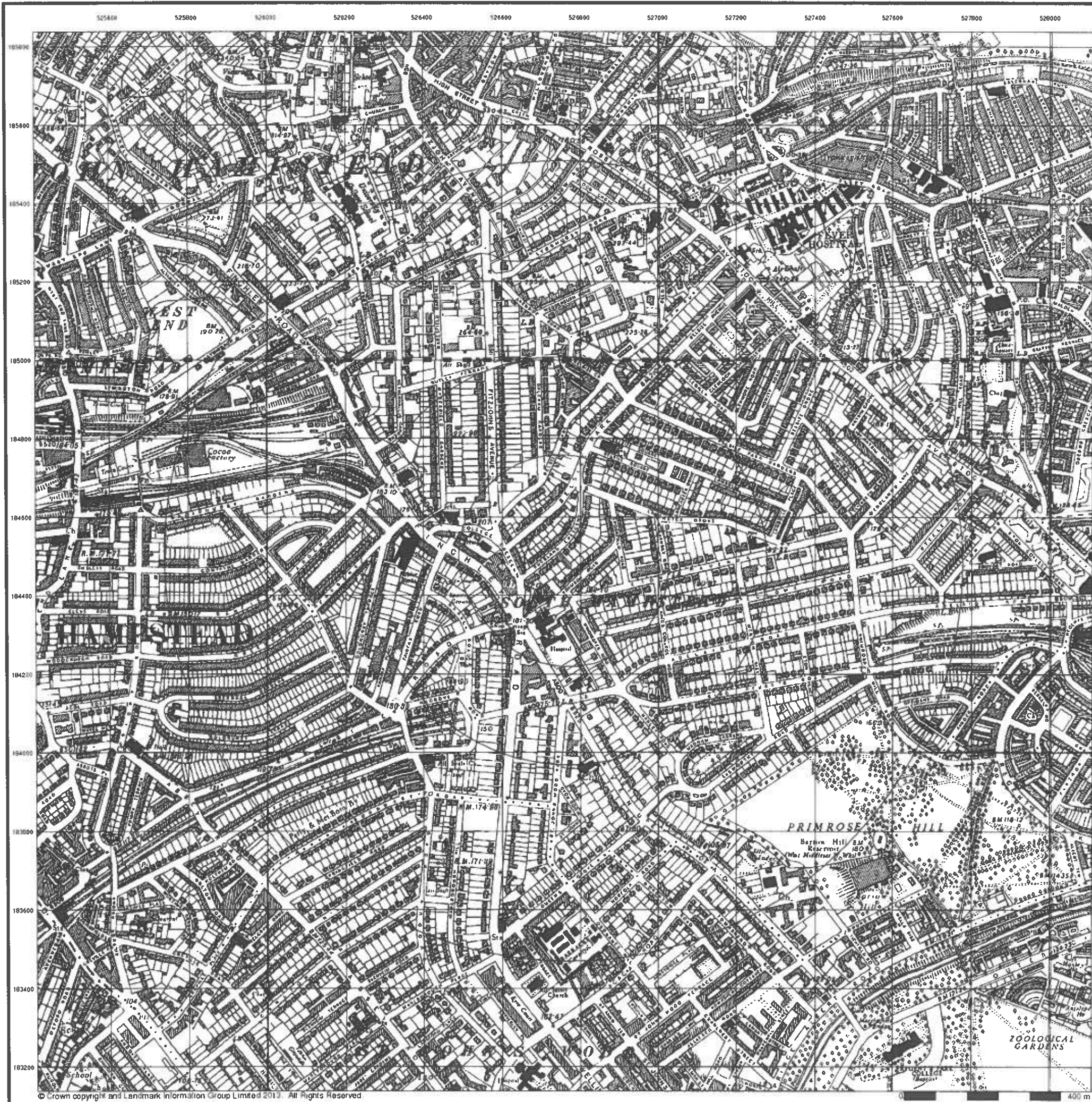
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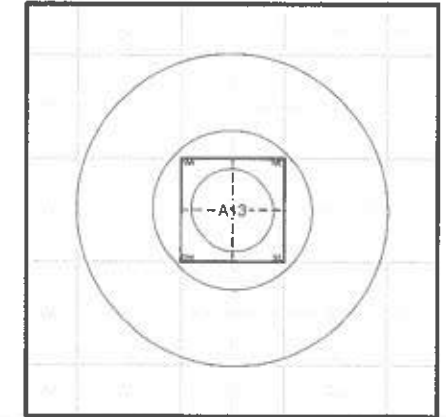
**Ordnance Survey Plan
Published 1951
Source map scale - 1:10,000**

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

- TQ28NE | 1951 | 1:10,560
- TQ28SE | 1951 | 1:10,560

Historical Map - Slice A



Order Details

Order Number: 52695727_1_1
 Customer Ref: 35 Buckland
 National Grid Reference: 526760, 184490
 Slice: A
 Site Area (Ha): 0.05
 Search Buffer (m): 1000

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