Gideon Road
Wandsworth, Greater London

Palaeoenvironmental Assessment

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Contents

List of Figures

List of Tables

Summary

Wessex Archaeology was commissioned by Kind and Co (Builders) Ltd (the Client), to undertake a palaeoenvironmental assessment of borehole BH8, comprising a thin c. 0.2m thick peat preserved below Holocene alluvium and sealed by made ground.

Two samples submitted for radiocarbon dating from the base and top of the peat produced dates of 4782-4545 and 4221-3962 cal. BC respectively, corresponding with the late Mesolithic, with the possibility that the top of the peat may extend into the earliest Neolithic.

Pollen was well-preserved and present in significant quantities, indicating a mixed woodland on the dry ground initially characterised by pine, hazel, oak and elm, followed by a shift to lime-oak woodland, with alder growing in the wetland. There is evidence for a decline in elm, thought to represent the characteristic elm decline identified widely in pollen sequences across the UK and within the Lower Thames Valley. There are no indications of associated human activity in the pollen record. Foraminifera and ostracods were absent in samples assessed from the base and top of the peat. Diatoms were poorly preserved but suggest a freshwater marginal aquatic habitat, but with low potential for further analysis.

Although pollen was well-preserved the peat is relatively short-lived in duration, with little indication of human activity and surrounding woodland vegetation consistent with more detailed palynological sequences from nearby sites that cover more extensive periods of time. Additional palaeoenvironmental analysis is unlikely to add substantially to the exiting body of data from the area and no further work is recommended.

Acknowledgements

Wessex Archaeology would like to thank Kind & Co (Builders) Limited for commissioning the palaeoenvironmental assessment. This report was written by Dr Alex Brown with contributions from Dr John Whittaker (foraminifera and ostracods), Dr Nigel Cameron (diatoms) and Dr Inés López-Doriga (Plant macrofossils and radiocarbon dating). Borehole subsampling and processing of the macrofossil samples was undertaken by Nicki Mulhall.

Gideon Road, Wandsworth, Greater London

Palaeoenvironmental assessment

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Kind and Co (Builders) Ltd (the Client), to undertake a palaeoenvironmental assessment of borehole BH8. The borehole was retrieved during the course of a geoarchaeological borehole survey in support of a planning application for the redevelopment of land at Gideon Road, Wandsworth, Greater London, centred on National Grid Reference (NGR) 528108, 175808.

1.2 The Site

1.2.1 The Site is currently used for car parking with a number of garages and storage sheds across the Site. The Site is bordered in all directions by residential housing.

1.2.2 The planning application for the redevelopment of the Site was submitted in October 2016 (2016/5738), and the following condition was imposed upon the development:

> *Condition 28 A): "No development other than demolition to existing ground level shall take place until the applicant (or their heirs and successors in title) has secured and prepared a suitable archaeological desk-based assessment report in accordance with Historic England and CIfA guidance which has been submitted by the applicant and approved by the local planning authority in writing."*

> *Reason: "In order that the archaeological remains that may exist on the site be investigated, in accordance with Council policies DMS2(d)."*

1.3 Summary of previous work

1.3.1 Previous work involved an Archaeological Desk-Based Assessment (DBA) which was used to establish the potential for archaeological deposits beneath the Site (Wessex Archaeology 2018a).

1.3.2 The DBA was followed by a geoarchaeological borehole survey to investigate the deposits and enable a more accurate judgement to be made on the scope for any further geoarchaeological works (Wessex Archaeology 2018b).

1.3.3 The borehole survey comprised the recovery of sleeved cores from eight locations using a percussive window sampling rig. Extensive alluvial deposits were recorded, the top of which had been truncated by previous development. No Pleistocene deposits were recorded from the Site.

1.3.4 Whilst the majority of the alluvial deposits were assessed as having a low geoarchaeological potential, a peat deposit of high potential was recorded within the base of borehole BH8. Peat is an ideal context for the preservation of material for radiocarbon along with plant micro- and macrofossil and invertebrate remains that provide key data on past vegetation environments, climate, land-use and the impact of human communities on the landscape.

1.3.5 The results of palaeoenvironmental assessment and scientific dating of these peat deposits form the basis for this report.

1.4 Scope of report

1.4.1 Wessex Archaeology employs a staged approach to geoarchaeological investigations, outlined below in **Table 1**. This approach is flexible and can be adjusted as required.

1.4.2 Reporting at each stage includes detailed recommendations for further targeted stages of work which may be appropriate. This allows oversight and approval at each stage by archaeological advisors, and reduces delays in critical-path reporting, particularly at Stage 2.

1.4.3 This palaeoenvironmental assessment represents Stage 3 of this process and details the results of work recommended in the Stage 2 report which combined the results of the borehole survey and archaeological evaluation (Wessex Archaeology 2018).

Table 1 Staged Approach to Geoarchaeological Investigations

Stage 1: WSI / Geoarchaeological Desk-based Assessment	Review of sub-surface data (e.g. mapping, existing GI, BGS logs), and summary of local or regional context. Establish likely presence/ absence/ distribution of archaeologically relevant deposits. May include modelling of existing data, and for larger schemes a fuller landscape characterisation. Present recommendations for fieldwork including type, number, distribution and depth of sampling methods.
Stage 2: Fieldwork, interpretation and reporting (e.g. Borehole survey)	Fieldwork to investigate deposits and obtain samples, followed by reporting. Reporting will present results (usually including deposit modelling), interpretations and recommendations for further work. Should suitable deposits be present, detailed recommendations for palaeoenvironmental assessment and dating will be made (Stage 3).
Stage 3: Palaeoenvironmental assessment	Assessment of subsamples agreed in Stage 2 (for e.g. pollen, diatoms, plant macrofossils, molluscs, ostracods and foraminifera), together with radiocarbon dating. Reporting will summarise results in the archaeological and palaeoenvironmental context of the local or wider area. Should deposits have the potential for analysis, recommendations will be for Stage 4 work.
Stage 4: Analysis	Full analysis of samples specified in Stage 3, together with a detailed synthesis of the results, in their local, regional or wider archaeological and palaeoenvironmental context as appropriate. Publication would usually follow from a Stage 4 report.
Publication	The scope and location of a publication report will be agreed in consultation with the client and LPA advisor. The publication report may comprise a note in a local journal or a larger publication article or monograph, dependant on the significance of the archaeological work.

2 AIMS AND OBJECTIVES

2.1.1 The aims and objectives of the palaeoenvironmental assessment were to:

- Determine the nature, depositional history and date of accumulated deposits
- Determine the preservation potential and concentration of palaeoenvironmental remains (pollen and macrofossils) within the deposits
- Assess the geoarchaeological and archaeological potential of the deposits
- Make suitable proportionate recommendations for further work.

2.1.2 The results of palaeoenvironmental assessment will inform recommendations for further work with the potential to address wider research questions concerning the evolution of the Holocene landscape and its relationship to patterns of vegetation development and human-environment relationships.

3 GEOARCHAEOLOGICAL BACKGROUND

3.1 Introduction

3.1.1 The archaeological and historical background was assessed in a prior Written Scheme of Investigation (Wessex Archaeology 2018c). Relevant geoarchaeological information is summarized below. Where appropriate this draws on relevant sites and studies outside the development area to inform the assessment of the geoarchaeological and archaeological potential.

3.1.2 Where age estimates are available these are expressed in millions of years (MA), thousands of years (Ka), and within the Holocene epoch as either years Before Present (BP), Before Christ (BC) and Anno Domini (AD).

3.2 Topography

3.2.1 The Site is situated within a relatively flat area of land at an elevation of approximately 3m above Ordnance Datum (aOD). Local topography falls gently to the north towards the River Thames and rises sharply to the south.

3.3 Geology

3.3.1 The underlying bedrock geology of the Site has been confirmed within the ground condition assessment report to consist of London Clay Formation (a sedimentary bedrock formed approximately 48 to 56 MA during the Palaeogene period) overlying the Lambeth group (a sedimentary bedrock formed 48 to 59 MA during the Palaeogene period) at depth (CC Ground Investigation ltd 2017).

3.3.2 The superficial deposits mapped by the British Geological Survey (BGS online viewer) within the Site belong to the Langley Silt Member. The Site is situated along the southern margins of the mapped extent of the Langley Silt Member; Holocene alluvium, overlying bedrock, is present immediately to the east. However, no deposits of the Langley Hill Member were recorded during the borehole survey.

4 METHODS

4.1 Introduction

4.1.1 Subsampling of the core samples was carried out in the laboratory following the recommendations laid out in the Stage 2 report (Wessex Archaeology 2018b).

4.1.2 The laboratory methods used for each assessment are outlined below.

4.2 Radiocarbon dating

4.2.1 Two sub-samples of wet-sieved sediment were submitted for radiocarbon dating of the humic fraction as no terrestrial plant macrofossils were available for dating (**Table 2**). and the samples were stored in water and sent for dating to the ^{14}CHRONO Centre at Queens University Belfast. Calibrated age ranges were calculated with OxCal 4.2 (Bronk-Ramsey 2013) using the IntCal13 curve (Reimer et al 2013). All radiocarbon dates are quoted as uncalibrated years before present (BP), followed by the lab code and the calibrated date-range (cal. AD) at the 2σ (95.4%) confidence.

4.3 Macrofossils

4.3.1 Two sub-samples were processed and assessed for the presence of environmental evidence, with a focus on plant macrofossils suitable for radiocarbon dating. The sub-samples were processed by standard methods for the recovery of waterlogged plant remains; the flots were retained on a 0.25mm mesh. Flots were stored in sealed containers with water. The flots were scanned under a x10 – x40 stereo-binocular microscope and the preservation and nature of the plant remains recorded in **Table 4**.

4.4 Pollen and spores

4.4.1 Four sub-samples of 1ml volume were processed using standard pollen extraction methods (Moore et al 1991).

4.4.2 Pollen was identified and counted using a Nikon eclipse E400 biological research microscope. A total of 150 pollen grains was counted for each sub-sample in addition to aquatics and fern spores, and where 150 counts were not possible, all pollen and spores were counted from four transects. One *Lycopodium* tablet was added to enable calculation of pollen concentrations. Pollen and spores were identified to the lowest possible taxonomic level.

4.4.3 Plant nomenclature followed Stace (1997) and Bennett et al (1994). Pollen sums are based on total land pollen (TLP) excluding aquatics and fern spores which are calculated as a percentage of TLP plus the sum of the component taxa within the respective category. Identification of indeterminable grains was according to Cushing (1967). At assessment stage the results are not presented as pollen diagrams but are presented in tabular form as raw data (**Table 4**). Plant taxa are assigned to one of the following groups (trees and shrubs, dwarf shrubs, cultivated, field weeds, ruderals, herbaceous open/ undefined, fern spores and aquatics) based on their most likely ecological affinity, although many plant taxa occur in a range of environmental niches (see Stace 1997 for specific plant taxa).

4.5 Diatoms

4.5.1 Two sub-samples were prepared following standard techniques (Battarbee et al 2001) (**Table 5**).

4.5.2 Diatom preparation followed standard techniques (Battarbee *et al.* 2001). Two coverslips were made from each sample and fixed in Naphrax for diatom microscopy. A large area of the coverslips on each slide was scanned for diatoms at magnifications of x400 and x1000 under phase contrast illumination.

4.5.3 Diatom floras and taxonomic publications were consulted to assist with diatom identification; these include Hendey (1964), Werff & Huls (1957-1974), Hartley *et al.* (1996), Krammer & Lange-Bertalot (1986-1991) and Witkowski *et al.* (2000). Diatom species' salinity preferences are indicated using the halobian groups of Hustedt (1953, 1957: 199), these salinity groups are summarised as follows:

1. Polyhalobian: >30g l-1

2. Mesohalobian: 0.2-30g l-1

3. Oligohalobian - Halophilous: optimum in slightly brackish water

4. Oligohalobian - Indifferent: optimum in freshwater but tolerant of slightly brackish water

5. Halophobous: exclusively freshwater

6. Unknown: taxa of unknown salinity preference.

4.6 Foraminifera and Ostracod

4.6.1 Two sub-samples were processed for foraminifera and ostracod analysis. The sub-samples were weighed, then broken into small pieces by hand, placed into ceramic bowls, and dried in an oven. Boiling-hot water was then poured over them with a little sodium carbonate added to help disaggregate the clay fraction. Each was left to soak overnight. It was found that breakdown was aided, especially with the organic-rich samples, by re-heating the still soaking samples in the oven for several hours before attempting to wash them. The peats, however, needed processing twice and even then, breakdown was not entirely satisfactory.

4.6.2 Sub-samples were then washed through a 75µm sieve with the remaining residue returned to the ceramic bowl for final drying in the oven. The residues were then stored in labelled plastic bags. For examination, each sample was placed in a nest of sieves (>50, >250, >150µm, and base pan) and thoroughly shaken. Each grade was then sprinkled onto a picking tray, a little at a time, and viewed under a binocular microscope.

4.6.3 The abundance of each foraminiferal and ostracod species was estimated semi-quantitatively (one specimen, several specimens, common and abundant/superabundant) by experience and by eye), and colour-coded to provide further ready environmental information. Species identification comes from Murray (2006) for the foraminifera, Athersuch et al. (1989) for the brackish and marine ostracods, and Meisch (2000) for the freshwater ostracods, in addition to expert judgement.

5 RESULTS

5.1 Introduction

5.1.1 The results of palaeoenvironmental assessment and scientific dating are outline below, focused on the thin peat at the base of borehole BH8.

5.2 Radiocarbon dating

5.2.1 Two samples for radiocarbon dating were submitted from the base and top of the peat in borehole BH8 (**Table 2**), producing dates of 4782-4545 and 4221-3962 cal. BC respectively. The dates correspond with the late Mesolithic with the possibility that the top of the peat may extend into the earliest Neolithic.

Table 2 AMS radiocarbon dates

Borehole	Depth (mbgs) / mOD	Material dated	Lab Code	Age (BP)	Age-range cal. BC (95.4%)
BH8	4.82 (-1.58)	Peat (humic fraction)	UBA-40683	5215±31	4221-4211 (1.1%) 4154-4134 (2.7%) 4063-3962 (91.6%)
	4.93 (-1.68)	Peat (humic fraction)	UBA-40684	5808±49	4782-4545

5.3 Macrofossils

5.3.1 Two samples were assessed for environmental macrofossils, but no suitable remains for radiocarbon dating were preserved (**Table 3**).

Table 3 Macrofossil assessment

Bore hole	Depth	Bulk volume (ml)	Net volume (ml)	Waterlogged plant remains		Invertebrates	
				Vegetative plant parts	Other	Insects	Molluscs + Crustaceans
BH08	4.82	60	1	C Inc. v. small root frags	-	-	cf. marine shell frag.
BH08	4.93	65	2	B Inc. small root fragments	-	-	-

5.4 Pollen and spores

5.4.1 The results of pollen assessment of borehole BH8 are presented here (**Table 4**) detailing the preservation and concentration of pollen grains (palynomorphs) accompanied by an outline of the range of taxa recorded. In total four pollen samples were assessed from borehole BH8.

5.4.2 Pollen preservation and concentrations were found to be excellent in all four samples in the peat. The samples are dominated by pollen of trees and shrubs, up to 99% in the basal sample (4.95mbgl; -1.70mOD) to 92% at 4.81mbgl (-1.57mOD). Trees and shrubs are dominated in the top lowest samples by *Corylus avellana*-type (hazel) and *Pinus sylvestris* (pine) with *Quercus* (oak), *Ulmus* (elm) and *Alnus glutinosa* (alder).

5.4.3 Both *Pinus sylvestris* and *Corylus avellana*-type decline at 4.86mbgl (-1.62mOD) with an increase in *Tilia* (lime) and increasing *Alnus glutinosa*. *Ulmus* declines sharply in the top sample (4.81mbgl; -1.57mOD).

5.4.4 Herbaceous pollen grains occur in very small quantities, mostly Cyperaceae (sedge family). Fern Spores occur in all samples, with larger quantities in the upper two samples, mostly Pteropsida (undifferentiated fern spores), *Polypodium vulgare* (polypody) and *Pteridium aquilinum* (bracken).

5.4.5 Only very occasional small fragments of microscopic charcoal were observed in the samples.

Table 4 Results of pollen assessment, borehole BH8

Depth (mbgl)	4.81	4.86	4.90	4.95
Depth (mOD)	-1.57	-1.62	-1.65	-1.70
Trees and Shrubs				
Betula (birch)	1	-	3	2
Pinus sylvestris (pine)	5	10	25	35
Corylus avellana type (hazel)	13	24	46	61
Ulmus (elm)	1	16	15	14
Quercus (oak)	21	24	25	33
Tilia (lime)	29	26	5	-
Alnus glutinosa (alder)	69	49	25	2
Salix (willow)	-	1	-	7
Hedera helix (ivy)	-	-	1	-
Herbs				
Poaceae (grass family)	2	1	1	1
Cyperaceae (sedge family)	6	3	6	-
Chenopodiaceae (goosefoot family)	1	-		-
Rumex acetosa (common sorrel)	1	-	-	-
Brassicaceae (cabbage family)	-	-	-	1
Drosera rotundifolia (common sundew)	-	-	1	-
Rosaceae (rose family)	-	1	-	-
Trifolium type (clover)	-	-	1	-
Apiaceae (carrot family)	1	-	-	-
Apium nodiflorum (fool's water-cress)	-	2		
Plantago lanceolata (ribwort plantain)	1	-	-	-
Lactuceae (lettuce)	-	1	-	-
Fern Spores				
Pteropsida undiff. (unidfferentiated fern spore)	14	25	8	3
Pteridium aquilinum (bracken)	2	2	-	-
Polypodium vulgare (common polypody)	4	2	1	1
Aquatics				
Sparganium emersum type (unbranched bur-reed)	2	-	-	-
Indeterminables	**14**	**8**	**14**	**11**
Exotic (*Lycopodium*)	**10**	**6**	**14**	**8**
Total land Pollen (TLP)	**151**	**158**	**154**	**156**
Preservation	**1**	**1**	**1**	**1**
Concentrations	**1**	**1**	**1**	**1**

5.5 Diatoms

5.5.1 Two samples were assessed for preservation of diatoms (4.8mbgl; -1.56mOD and 4.92 mbgl; -1.67mOD). The results are presented in Error! Reference source not found..

5.5.2 Diatoms were present in low quantities in the lowermost sample at 4.92 mbgl; (-1.67mOD). and with very poor levels of preservation. Aerophilous diatoms, such as *Pinnularia major,* were particularly common in this sample and are associated with semi-terrestrial and ephemeral aquatic habitats. The semi-terrestrial or ephemeral nature of the aquatic habitat is also supported by the abundance of chrysophyte stomatocysts. The poor preservation of diatoms is also shown by the relatively high numbers of valve fragments identifiable only to the genus or group level.

Table 5 Results of diatom assessment, borehole BH8

Sample depth: mbgl (mOD)	4.80 (-1.56)	4.92 (-1.67)
Amphora libyca	3	
Aulacoseira sp.	1	2
Caloneis sp.	1	
chrysophyte cysts	2	3
Eunotia bilunaris	1	
Eunotia circumborealis		1
Eunotia pectinalis var. *minor*	2	
Eunotia sp.		1
Eunotia vanheurkii	1	
Fragilaria pinnata	2	
Fragilaria vaucheriae	1	
Gomphonema angustatum	2	1
Gyrosigma sp.	1	
Inderminate centric sp.		1
Inderminate pennate sp.	1	
Navicula (*Sellaphora*) *pupula*	1	
Navicula elginensis	1	
Neidium sp.	1	
Nitzschia sp.		1
Pinnularia (*abaujensis*) *gibba*	1	
Pinnularia major		3
Pinnularia sp.	2	1
Stauroneis anceps	1	
Stauroneis kriegerii	1	
Stauroneis phoenicenteron	3	
Stauroneis smithii	1	
Stauroneis sp.	1	1
Unknown naviculaceae	1	2

5.5.3

5.5.4 The sample from 4.8mbgls (-1.56mOD) contained a moderately high number of diatoms with a moderately high species diversity, although preservation was poor. The diatom assemblage at this depth was composed of freshwater non-planktonic, benthic and attached diatoms from shallow water environments. These diatoms include *Amphora libyca, Fragilaria pinnata, Fragilaria vaucheriae, Gomphonema angustatum, Sellaphora pupula, Navicula elginensis, Stauroneis anceps, Staruroneis kriegerii, Stauroneis phoenicenteron* and *Stauroneis smithii*. The high numbers of dissolved valve fragments of *Stauroneis phoenicenteron*, a large and robust heavily silicified species, partly reflect the poor conditions for diatom preservation.

5.5.5 The peaty nature of the depositional environment is again reflected by the presence of acidophilous diatoms such as *Eunotia pectinalis* var. *minor*, *Eunotia bilunaris, Eunotia vanheurkii* and *Aulacoseira* sp. Like the lower sample, aerophilous taxa such as the large undifferentiated *Pinnularia* sp. that is common here, along with the common occurrence of chrysophyte cysts, reflects the shallow-water or ephemeral nature of the aquatic environment.

5.6 Foraminifera and ostracod

5.6.1 Two samples were assessed for preservation of foraminifera and ostracods but in both cases no remains were preserved.

6 DISCUSSION

6.1 Chronostratigraphy

6.1.1 The thin peat preserved in borehole BH8 has been show to most likely date from the late Mesolithic with the potential for the top of the peat to date to the earliest Neolithic (4782–3962 cal. BC), representing between approximately 325 and 820 years of peat development.

6.1.2 Reliable chronologies are a fundamental component of palaeoecological investigations of peat. Terrestrial plant macrofossils are considered the most reliable material for radiocarbon dating (Blaauw et al 2004), although unfortunately none were recovered from borehole BH8.

6.1.3 Care was taken to identify any potential issues of contamination with old or young carbon. Contamination by young carbon may occur through root penetration whilst old carbon may reflect the uptake of dissolved inorganic carbon by aquatic plants (e.g. Bjőrck and Wholfarth 2002, Butz et al 2017).

6.1.4 No roots or evidence for rooting by either trees or herbaceous plants was noted during the detailed examination of the cores and the two dates show a clear linear progression. Although contamination of peat deposits by either young or old carbon cannot be ruled out, but is considered unlikely or of very limited impact.

6.1.5 Sequences of peat and fine-grained minerogenic deposits are widespread within the former floodplain of the River Thames, primarily dating from the late Mesolithic to Iron Age, but with rarer examples within palaeochannels and tributaries dating to the Late Glacial, Romano and Anglo-Saxon periods (e.g. Sidell et al 2000; Morley 2010; Powell et al 2013; Green et al 2014; Payne et al 2018).

6.1.6 Where preserved, these peats reflect a complex interplay between semi-terrestrial and riverine environments forming under the background influence of an upward but fluctuating trend in post-glacial sea-levels.

6.2 Palaeoenvironments

6.2.1 Palaeoenvironmental assessment of the peat indicates a mixed woodland on the dry ground dominated initially by pine, hazel oak and elm, followed by a shift to lime-oak, with alder car woodland present within the wetland.

6.2.2 There is a noticeable decline in elm values between 4.86 to 4.81mbgl that is considered to represent the characteristic elm decline, a broadly synchronous event across Britain, occurring between c. 4400 and 3330 BC, identified in pollen sequences widely across the UK (Parker et al 2002).

6.2.3 There is an extensive literature covering the probably causes of the elm decline, most recently synthesised for the Lower Thames in Batchelor et al (2014), variously ascribed to disease, a shift to a continental climate, human interference, competition, soil deterioration, or a combination of one or more of these processes.

6.2.4 It is not the intention here to review debate over the likely causes of the decline although consensus now favours disease and climate as the most probably drivers. Similar to modern Dutch elm disease, the beetle *Scolytus scolytus*, in cases found in close associated with the prehistoric elm decline, acted as a vector for the fungal pathogen *Ophiostoma ulmi*.

Disease may have been more likely under circumstances of a shift towards a more continental climates, placing environmental stress on elm populations at their northern range.

6.2.5 Human activity is now viewed as incidental to the elm decline but was for a long time viewed as the most likely cause, reflecting the impact of changing human-environment relationships occurring at the transition from hunter-gatherer to farming lifestyles. However, the geographical scale of the elm decline, and its chronological and geographical synchronicity, cannot be easily explained when compared against the dispersed and uneven nature of human settlement across Britain at this time (see Parker et al 2002 for a detail review of the debate). Moreover, synchronicity does not equate with causality – human activity may be a consequence rather than a cause of changes apparent in the palaeoecological record.

6.2.6 The peat also includes increasing levels of lime from 4.86mbgl (-1.62mOD). Lime is intolerant of waterlogged soils with large and sticky insect pollinated grains that travel only a short distance from source. The high levels of lime therefore suggest nearby dry ground to the pollen sampling site.

6.2.7 The diatoms, although poorly preserved, indicate a shallow water semi-terrestrial habitat within the wetland, consistent with the peaty nature of the sediment and with diatoms that may have grown in pools or channels, or as epiphytes on the peat surface.

Human activity

6.2.8 No clear signs of human activity were revealed during the course of the palaeoenvironmental assessment. Small quantities of microscopic charcoal were recorded that may reflect burning, although this may reflect natural fires rather than anthropogenic activity.

7 RECOMMENDATIONS

7.1.1 Foraminifera and ostracods were absent and have no potential for further analysis.

7.1.2 Diatoms were present in both samples, indicating a marginal aquatic freshwater habitat, but were poorly to very poorly preserved and have low potential for further analysis.

7.1.3 Although pollen was well-preserved and present in high concentrations, radiocarbon dating has established that the peat in borehole BH8 is relatively short-lived, with pollen producing little indication for human activity or modification of the surrounding environment/landscape. The vegetation signal is consistent with similar dated portions of nearby pollen sequences that cover more extensive periods of time (e.g. New Covent Garden Market; Wessex Archaeology 2017) that borehole BH8.

7.1.4 Analysis of existing assessed samples is therefore considered unlikely in this case to add substantially to the existing body of data from the area and no further work is recommended.

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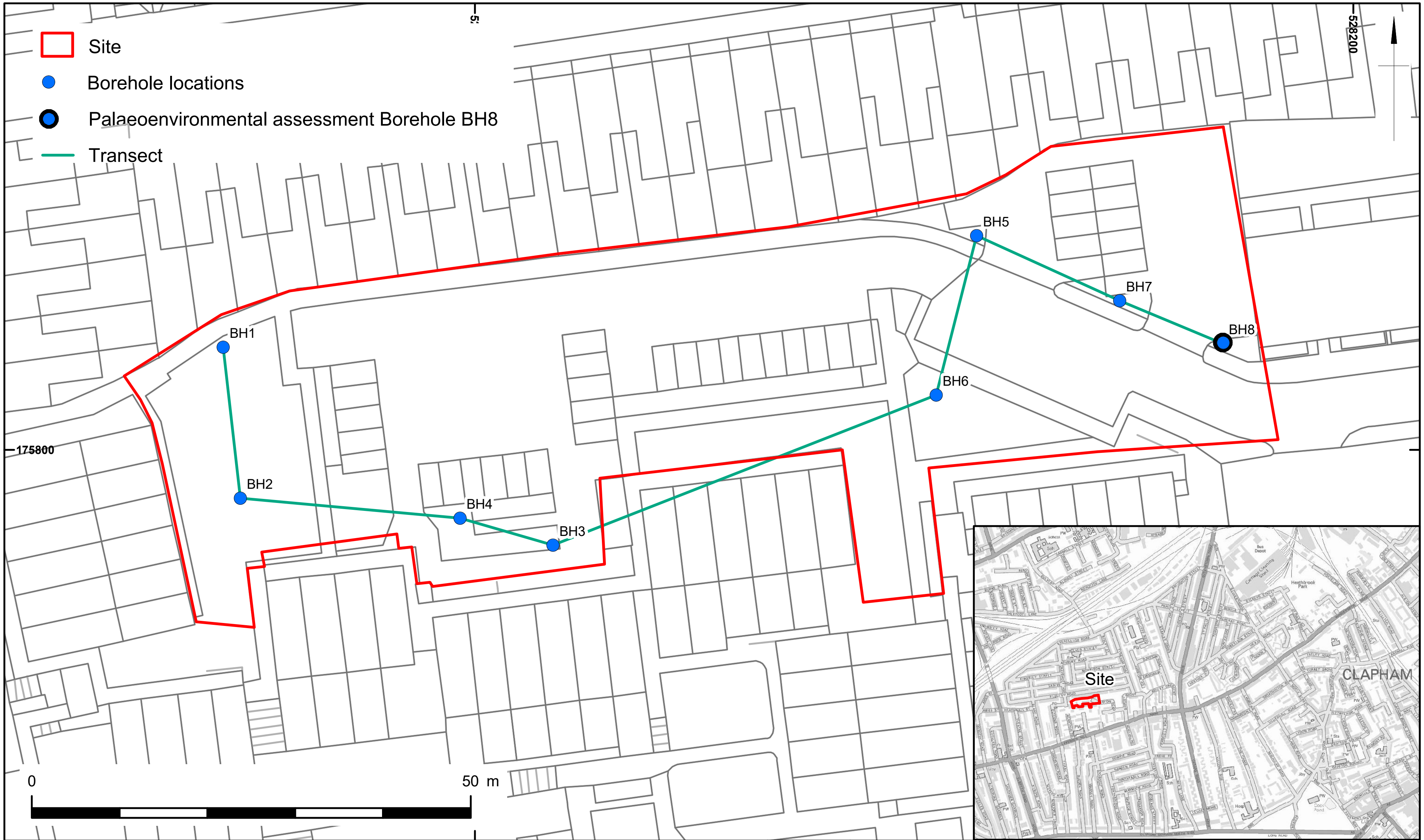

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Location of Site and palaeoenvironmental assessment Borehole BH8

Figure 1

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