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CONSULTING
CONTAMINATED LAND
AND HYDROGEOLOGY

Basement Impact Assessment: Groundwater
63 Goldhurst Terrace, NW6 3HB

Prepared for: Ground and Project Consultants Limited
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Date: 15/09/2016
Status: Draft
Reference: 30161R1D1

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1 INTRODUCTION

Ground and Project Consultants Limited has instructed H Fraser Consulting Ltd (HFCL) to provide the hydrogeological aspects of a Basement Impact Assessment at the following property:

63 Goldhurst Terrace, NW6 3HB.

The site is in the London Borough of Camden.

1.1 Objective

The objective of this report is to provide the hydrogeological aspects of a Basement Impact Assessment to support a planning application for construction of a basement at 63 Goldhurst Terrace, NW6 3HB.

1.2 Scope of works

The following works have been undertaken:

- Desk study
- Screening assessment with regards to groundwater
- Scoping assessment to identify potential impacts
- Impact assessment with regard to groundwater attributes
- Reporting

The work has been undertaken in accordance with the requirements of London Borough of Camden's Planning Guidance CPG4 'Basements and Lightwells' (referred to as CPG4) and Arup's 'Geological Hydrogeological and Hydrological Study, Guidance for Subterranean Development' (Arup, 2012, referred to throughout this report as the GHHS).

This assessment is limited to an assessment of the hydrogeological aspects of the proposed development and does not purport to make any comment on surface water flooding, hydrology, contamination or pollution, engineering, land stability, design or construction issues.

The work has been undertaken by Hannah Fraser, Director of HFCL, who is a Chartered Geologist with 20 years' experience as a hydrogeologist and consultant.

2 BACKGROUND INFORMATION

Background information has been derived from a Groundsure report for the site (Appendix A); geological information has been derived from on-line BGS sources (Geology of Britain Viewer, GeoIndex, Lexicon); on-line mapping and aerial photography have been derived from Streetmap and GoogleEarth. Table 2.1 presents relevant background information for the site. The site location is shown in Figure 2.1.

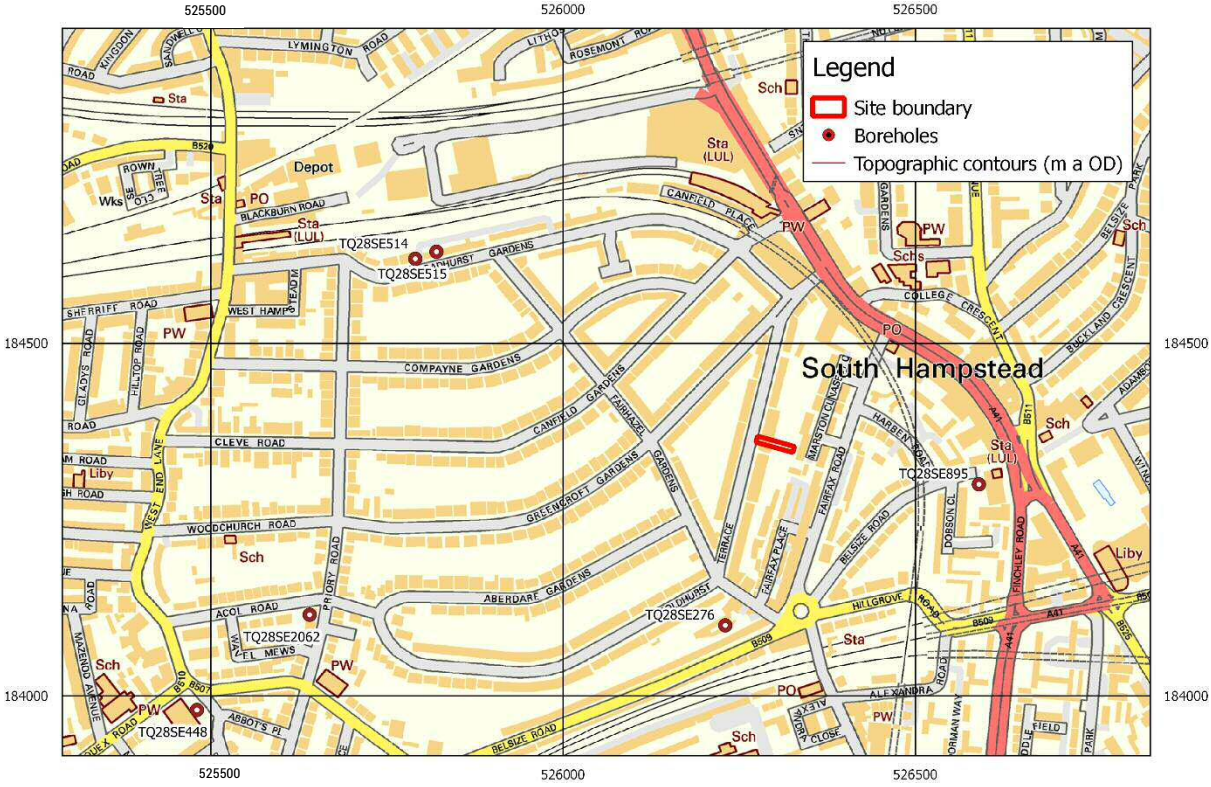

Figure 2.1 Site location

Contains Ordnance Survey data © Crown copyright and database right 2016

Table 2.1 Background information

Address	63 Goldhurst Terrace, NW6 3HB
NGR	526292, 184356
Description	The existing property is a 3 storey brick built Victorian residence. The site area is estimated at 490m^2, and the building area is estimated as 160 m^2. There is an existing small shallow basement at the front of the property, with external access from ground level at the front of the property. The basement does not occupy the full width of the building and comprises a small room at the front of the property and a passageway leading to stairs which provide internal access to the upper floors. The front garden area is paved, and there is a paved area at the rear immediately adjacent to the house. Both neighbouring properties are understood to have basements, both of which have been recently constructed.

	Ordnance survey topographic data show the site to lie at approximately 40 m OD contour, with ground elevations falling to the southwest, as shown in Figure 2.1.
Proposed development	The proposals are to develop a 3 m deep basement below the footprint of the existing property. The external access at the front of the property will be maintained, but the area of the lightwell extended and the access steps realigned. The proposed basement will extend the full width and depth of the ground floor, with a lightwell to the rear. Both front and rear lightwells will occupy an area currently covered with paving. Site plans are shown in Appendix B.
Geology	Geological mapping[1] shows the area to be underlain by London Clay. The London Clay is extensive across the area, with the nearest superficial deposits mapped approximately 2.6 km southeast. The geological boundary with the Claygate Member, which overlies the London Clay, lies approximately 690 m north. The London Clay mainly comprises bioturbated or poorly laminated, blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt and sometimes silt, with some layers of sandy clay. It commonly contains thin courses of carbonate concretions ('cementstone nodules') and disseminated pyrite. It also includes a few thin beds of shells and fine sand partings or pockets of sand, which commonly increase towards the base and towards the top of the formation. At the base, and at some other levels, thin beds of black rounded flint gravel occur in places. Glauconite is present in some of the sands and in some clay beds, and white mica occurs at some levels[2] Table 2.2 presents geological data from selected BGS borehole records[3], and Figure 2.1 shows the location of the boreholes. The local borehole records confirm the presence of Made Ground overlying London Clay. A site investigation was undertaken by Chelmer Site Investigations in August 2014 comprising the excavation of one 5 m borehole at the front of the property. The borehole log shows Made Ground underlain by Clay. Site investigation data are provided in Table 2.3.
Aquifer status	The London Clay is classified by the Environment Agency as unproductive strata (rock layers with low permeability and negligible significance for water supply or river base flow). The site is not within a source protection zone of a public water supply. Groundwater was not recorded in any of the BGS borehole logs presented in Table 2.2. Groundwater was not recorded during drilling at the site, however groundwater monitoring was not undertaken after drilling. Borehole logs and groundwater observations have been made in association with basement impact assessments at three local properties, one 560 m west

[1] http://mapapps.bgs.ac.uk/geologyofbritain/home.html
[2] http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=LC
[3] http://mapapps2.bgs.ac.uk/geoindex/home.html

	on Priory Road, another 190 m west on Greencroft Gardens, and the third 450 m southwest on Goldhurst Terrace. Groundwater data are presented in Table 2.4; groundwater levels ranged between approximately 1 m bgl and approximately 2 m bgl.
Watercourses	The Groundsure report[4] states there are no surface water abstractions within 2 km of the site, and no rivers or surface water features within 500 m and 250 m of the site respectively. The old course of the headwaters of the River Kilburn lies approximately 120 m west of the site. It is not known whether this river is now culverted or diverted, but there are no indications that there is a water feature present on current mapping or aerial photography.
Spring lines	There are no springs shown on OS mapping, and no known local geological features that might give rise to springs.
Wells	The nearest groundwater abstraction licence reported in the Groundsure report is approximately 436 m east of the property, at Swiss Cottage. The site is 269 m west of the outer source protection zone of this abstraction. The BGS geoindex indicates that this well abstracts from the Chalk aquifer underlying the London Clay[5].
Groundwater flooding	The area is not considered prone to groundwater flooding, based on rock type.[6]

[4] Groundsure report GS-3300137
[5] http://mapapps2.bgs.ac.uk/geoindex/home.html
[6] Groundsure report GS-3300137

Table 2.2 BGS borehole records

Reference	Name	Length	Easting	Northing	Description
TQ28SE514	Broadhurst Gardens BH1	3.89	525790	184620	Made Ground to 0.61 m; London Clay soft to firm red brown mottled clay changing to brown and grey mottled clay. A few gypsum crystals to 3.9 m. Borehole dry.
TQ28SE515	Broadhurst Gardens BH2	3.81	525820	184630	Made Ground to 0.91 m; firm light brown Clay to 1.22 m; fine medium gravel in matrix of firm brown clay to 1.83 m; firm brown silty clay some gypsum crystals to 3.35 m; firm brown clay with blue streaks to 3.81 m. Borehole dry.
TQ28SE448	Kilburn Vale Est BH4	15	525480	183980	Made Ground to 0.45 m; firm becoming stiff brown fissured silty clay, occasional patches of fine sand and selenite crystals in fissures to 10.2 m; stiff blue fissured silty clay with some silt in fissures to 15.25 m. Water was not encountered during drilling.
TQ28SE2062	65 Priory Road Hampstead 1	10	525640	184115	Made Ground. Soft to firm brown clay with many broken bricks and decomposed mortar to 1.04 m; firm slightly silty brown mottled grey CLAY with extensive close fissuring. Occasional claystones. Becoming very stiff slightly silty dark brown slightly mottled grey clay with some fissures and fine partings of grey silt to 7.75 m; very stiff to hard slightly silty blue grey clay with many large fissures. Some sandy and silty partings to 10 m. Borehole dry.
TQ28SE276	Colridge Gardens Swiss Cottage	7.62	526230	184100	Topsoil to 0.45 m, Loamy Clay to 1.52 m, Brown Clay to 7.62 m, Borehole dry.
TQ28SE895	Swiss Cottage 4	12.19	526590	184300	Made ground (concrete and bricks) to 0.76 m, Stiff brown clay with occasional sulphate crystals to 6.86 m, stiff to very stiff grey silty clay to 4.57 m. Ground level at 52.21 m, water - none.

Geological data from site investigations undertaken by Chelmer Site Investigations in August 2014 are presented in Table 2.3.

Table 2.3 Site investigation data

Strata	Depth (m bgl)	Thickness (m)
- Brick Paving	0.15	0.15
- MADE GROUND: medium compact dark brown very silty Clay with gravel and brick fragments.	0.9	0.75
- Firm orange-brown grey veined silty CLAY with partings of orange and brown silt and fine sand, claystone nodules and selenite crystals...becoming stiff from 1.4 m	2.3	1.4
- Very stiff orange-brown grey veined silty CLAY with partings of orange and brown silt and fine sand, frequent claystone nodules and selenite crystals	5.0	2.7

The borehole is recorded as being dry and open on completion. No further information is available regarding groundwater elevations.

Groundwater elevation data are available from three local properties, one 560 m west on Priory Road, another 190 m west on Greencroft Gardens, and the third 450 m southwest on Goldhurst Terrace. The data are presented in Table 2.4.

Table 2.4 Local groundwater dip data

Date	Groundwater reading (m bgl)	Location
30/05/2014	2.11 m bgl	Goldhurst Terrace
07/10/2015	1.08 m bgl	Greencroft Gardens
16/10/2015	0.95 m bgl	Greencroft Gardens
10/06/2015	1.02 m bgl	Priory Road

3 SCREENING

A screening assessment has been undertaken in accordance with the methodology set out in Section 6.2 and Appendix E2 of the GHHS (Arup, 2012). The results are presented in Table 3.1.

Table 3.1 Screening assessment

Ref	Question	Answer (yes/no/unknown)	Action
Q1a	Is the site located directly above an aquifer?	No the site is underlain by the London Clay	No further action
Q1b	Will the proposed basement extend beneath the water table surface?	Unknown	Take forward to scoping stage
Q2	Is the site within 100m of a watercourse, well (used/ disused) or potential spring line?	No	No further action
Q3	Is the site within the catchment of the pond chains on Hampstead Heath?	No	No further action
Q4	Will the proposed basement development result in a change in the proportion of hard surface/paved areas?	No	No further action
Q5	As part of the drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDs)	Unknown	Take forward to scoping stage
Q6	Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to or lower than the mean water level in any local pond or spring line?	No	No further action

4 SCOPING

This section of the report summarises the pertinent information as a Conceptual Model, and then describes the matters of concern that need to be considered in the Impact Assessment.

4.1 Conceptual model

The proposed development is to extend an existing small shallow basement to fill the width and depth of the current building footprint, with a lightwell at the rear. An existing lightwell at the front will be extended and the existing external access stairs repositioned. Both lightwells are in areas currently covered by hardstanding.

Local topography falls to the south and southwest, and the site lies at an elevation of approximately 40 m a OD. The basement excavation is likely to be c. 3.0 m bgl.

The underlying geology comprises the London Clay. Site investigation data from the front of the property confirm the presence of Clay below 0.9 m of clayey Made Ground. The London Clay is classified as 'unproductive strata', and has low permeability. Groundwater flow within the London Clay is generally negligible, although some groundwater movement occurs on discrete sand partings or other discontinuities. Groundwater flow directions are likely to be in the direction of topography, to the south and southwest. Geological mapping indicates that there may be Head Deposits in the vicinity.

Groundwater was not observed during drilling at the site, and there are no further groundwater monitoring data on which to ascertain likely groundwater elevations. Due to the very low permeability of the London Clay, it can take several days or weeks for a water table elevation to be established within a water monitoring borehole, and it is therefore inappropriate to assume that there is no groundwater at the site on the basis of observations during drilling. Groundwater readings taken in 2014 and 2015 from boreholes at neighbouring properties (560 m west on Priory Road, 190 m west on Greencroft Gardens, and 450 m southwest on Goldhurst Terrace) were between approximately 1 m bgl and approximately 2 m bgl.

Both neighbouring properties are believed to have constructed basements recently, or be in the process of developing basements. The construction of the neighbouring basements is therefore likely to be modern, with protection against groundwater ingress.

The drainage arrangements for the site are not known.

4.2 Matters of concern

Five attributes are considered as potential matters of concern, as discussed below.

1. Groundwater level – no groundwater data are available from the site, but local readings indicate that groundwater might be at approximately 1-2 m bgl. This is taken forward for further assessment.
2. Range of seasonal fluctuation in groundwater levels – the range of fluctuation in groundwater levels is not known. This is taken forward for further assessment.
3. Spring/stream hydrographs – there is no evidence that local streams or springs are likely to be affected. This is not considered further.
4. Soil moisture – there is the potential for soil moisture content to affect the development, and this is carried forward for further assessment.

5. Water quality – there is no evidence that the development will affect water quality, provided good practice is followed with regard to pollution management. This is not considered further.

5 IMPACT ASSESSMENT

The impact assessment has been undertaken by considering groundwater attributes, how these are likely to change under the proposed development and the consequence of any predicted changes. The assessment is qualitative at this stage. The results are presented in Table 5.1.

Table 5.1 Impact assessment

Groundwater Attribute	Predicted Change	Consequence of change and mitigation
Groundwater levels	Groundwater has been observed in the locality at between approximately 1 m bgl and 2 m bgl, indicating that the development may extend below the water table. There is the potential for groundwater ingress to the excavation, although volumes are likely to be minimal due to the low permeability of the London Clay. There is also the potential for groundwater ingress to the finished basement development. There is the potential for groundwater to back-up around the proposed basement structure, although the risks are mitigated to an extent by the low permeability of the London Clay. The risks to neighbouring basements are likely to be low as they are believed to be recent developments with modern construction methods that would include protection against groundwater ingress. The proposals are unlikely to result in a change to infiltration and recharge to the London Clay, as the development outside the footprint of the existing building is in areas which are currently covered with paving. Additionally, recharge to the London Clay is likely to be low under current conditions due to the low permeability of the London Clay, and it is not anticipated that impacts to groundwater levels will be significant. Detailed drainage designs are not known at this stage, however it is not anticipated that significant volumes of water will be discharged to ground due to the low permeability of the London Clay.	Measures should be taken to protect the excavation against groundwater ingress during construction. The excavation should be kept dry. The basement design should include protection against groundwater ingress to the finished development. Drainage design should comply with the requirements of SUDS.

Groundwater Attribute	Predicted Change	Consequence of change and mitigation
Range of seasonal fluctuation in groundwater levels	The range of seasonal groundwater fluctuation is not known. Locally, the groundwater table has been measured at a relatively shallow depth, and seasonal fluctuations in groundwater combined with backing up of groundwater levels around the basement structure have the potential to cause daylighting of groundwater at the surface. The likelihood of this occurring is considered to be relatively low due to the low permeability of the London Clay, but in the absence of site specific groundwater data, mitigation measures should be incorporated to address this risk.	Structural design should allow for seasonal fluctuations in groundwater elevations, which may rise to ground level. The basement design should include groundwater drainage systems to prevent groundwater backing up around the development, and thereby protect neighbouring properties from impact. There are measures widely implemented in such situations and if correctly designed and constructed there should not be any significant groundwater back up around the new basement.
Soil moisture	Soil moisture has the potential to permeate the basement structure.	The proposed basement structure should be adequately protected against permeation of soil moisture.

6 CONCLUSIONS

The proposed development is to extend an existing small shallow basement to fill the width and depth of the current building footprint, with a lightwell at the rear. An existing lightwell at the front will be extended and the existing external access stairs repositioned. Both lightwells are in areas currently covered by hardstanding.

The underlying geology comprises the London Clay. Site investigation data from the front of the property confirm the presence of Clay below 0.9 m of clayey Made Ground. The London Clay is classified as 'unproductive strata', and has low permeability. Groundwater flow within the London Clay is generally negligible, although some groundwater movement occurs on discrete sand partings or other discontinuities.

Groundwater was not observed during drilling at the site, however in the local area groundwater observations have been made between approximately 1 m bgl and approximately 2 m bgl, indicating that the development may extend below the water table.

There is the potential for groundwater ingress to the excavation, although volumes are likely to be minimal due to the low permeability of the London Clay. There is also the potential for groundwater ingress to the finished basement development. Measures should be taken to protect the excavation against groundwater ingress during construction. The excavation should be kept dry. The basement design should include protection against groundwater ingress to the finished development.

There is the potential for groundwater to back-up around the proposed basement structure, although the risks are mitigated to an extent by the low permeability of the London Clay. The risks to neighbouring basements are likely to be low as they are believed to be recent developments with modern construction methods that would include protection against groundwater ingress.

The proposals are unlikely to result in a change to infiltration and recharge to the London Clay, as the development outside the footprint of the existing building is in areas which are currently covered with paving. Additionally, recharge to the London Clay is likely to be low under current conditions due to the low permeability of the London Clay, and it is not anticipated that impacts to groundwater levels will be significant.

Detailed drainage designs are not known at this stage, however it is not anticipated that significant volumes of water will be discharged to ground due to the low permeability of the London Clay. Drainage design should comply with the requirements of SUDS.

Structural design should allow for seasonal fluctuations in groundwater elevations, which may rise to ground level. Given the lack of site specific groundwater elevation data, the basement design should include groundwater drainage systems to prevent groundwater backing up around the development under high water table conditions. There are measures widely implemented in such situations and if correctly designed and constructed there should not be any significant groundwater back up around the new basement.

7 REFERENCES

Arup, 2012. Geological Hydrogeological and Hydrological Study, Guidance for subterranean development

Chelmer Site Investigations, 2014. Factual Report, 63 Goldhurst Terrace, NW6

London Borough of Camden CPG4 'Basements and Lightwells'

APPENDIX A

Groundsure Report

Groundsure Enviro Insight

Address:	**63, GOLDHURST TERRACE, LONDON, NW6 3HB**
Date:	**15 Sep 2016**
Reference:	**GS-3300137**
Client:	**H Fraser Consulting Ltd**

NW N NE

W E

SW S SE

Aerial Photograph Capture date:	04-May-2014
Grid Reference:	526293,184359
Site Size:	0.03ha

Report Reference: GS-3300137
Client Reference: 30161_65_Goldhurst_Terrace

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Overview of Findings

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Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	0	4	79
1.2 Additional Information – Historical Tank Database	0	0	0	6
1.3 Additional Information – Historical Energy Features Database	0	0	5	46
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	13	36
1.6 Potentially Infilled Land	0	0	9	25

Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	5	8
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	0
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	0
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency Historic Landfill Sites	0	0	0	1	0	0
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	3	Not searched	Not searched
3.2.2 Environment Agency Licensed Waste Sites	0	0	0	0	0	0

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	0	10	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	1
4.3 National Grid Underground Electricity Cables	0	0	0	12
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
5.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	None
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m
6.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	No
6.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	4	0	4
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	3
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	1	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	0	0	0	0	Not searched	Not searched

	On-site	0-50m	51-250	251-500	501-1000	1000-1500

Section 6: Hydrogeology and Hydrology	0-500m					
6.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
6.10 Detailed River Network entries within 500m of the site	0	0	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	No	Not searched	Not searched	Not searched

Section 7: Flooding	
7.1 Are there any Enviroment Agency Zone 2 floodplains within 250m of the study site?	No
7.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site	No
7.3 What is the Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site?	Very Low
7.4 Are there any Flood Defences within 250m of the study site?	No
7.5 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
7.6 Are there any areas used for Flood Storage within 250m of the study site?	No
7.7 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Not Prone
7.8 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Not Applicable

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	3
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards

9.1 What is the maximum risk of natural ground subsidence?	Moderate
9.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Moderate
9.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
9.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
9.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Negligible
9.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
9.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Negligible
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining

10.1 Are there any coal mining areas within 75m of the study site?	No
10.2 Are there any Non-Coal Mining areas within 50m of the study site boundary?	No
10.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

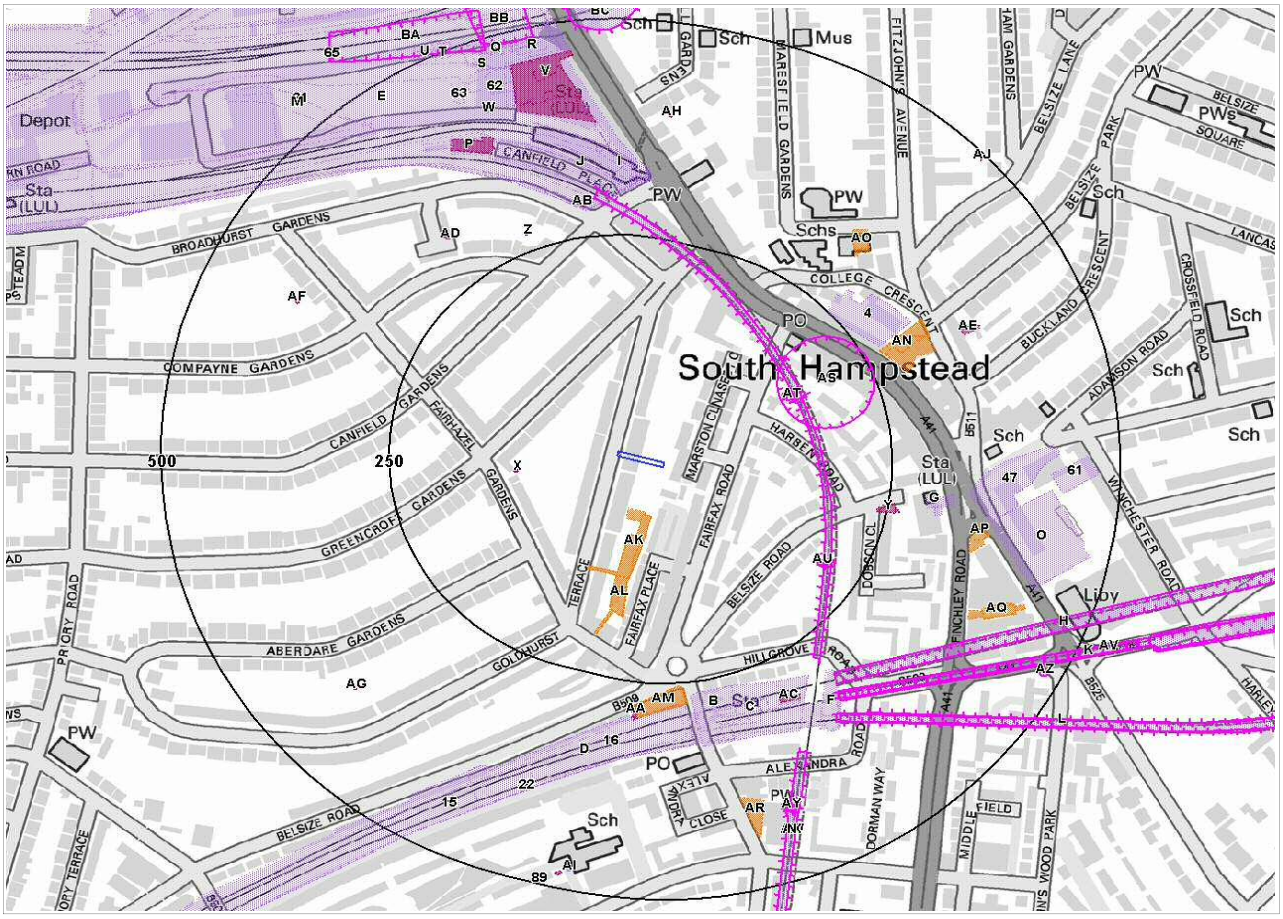
All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use

NW N NE

W E

SW S SE



Site Outline

250
500
Search Buffers (m)

Historical 1:10,000 and 1:10,560 scale mapping

Industrial Land Use

Potentially Infilled Land

Historical 1:2,500, 1:1,250 and 1:500 scale mapping

Energy Features

Petrol Stations

Tanks

Garages

1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 83

ID	Distance [m]	Direction	Use	Date
1A	162	E	Tunnel	1973
2A	162	E	Tunnel	1968
3A	162	E	Tunnel	1957
4	248	NE	Hospital	1948
5B	263	S	Railway Station	1973
6B	263	S	Railway Station	1957
7B	263	S	Railway Station	1948
8C	263	S	Railway Sidings	1973
9C	263	S	Railway Sidings	1968
10B	263	S	Railway Station	1989
11B	263	S	Railway Station	1968
12D	274	S	Railway Sidings	1973
13D	274	S	Railway Sidings	1968
14D	274	S	Railway Sidings	1989
15	274	S	Railway Sidings	1957
16	276	S	Railway Sidings	1948
17M	280	N	Railway Sidings	1920
18E	281	N	Railway Sidings	1957
19E	282	N	Railway Sidings	1973
20E	282	N	Railway Sidings	1968
21	282	N	Railway Sidings	1948
22	285	S	Railway Sidings	1894
23C	285	S	Railway Station	1894
24B	288	S	Railway Station	1920
25G	289	E	London Transport Station	1989
26AC	292	SE	Railway Building	1989
27J	295	N	Railway Station	1948
28F	295	SE	Railway Sidings	1973
29F	295	SE	Railway Sidings	1968
30G	296	E	Railway Station	1894
31G	297	E	Unspecified Station	1920
32I	301	N	Railway Station	1920
33H	302	SE	Tunnel	1968
34H	302	SE	Tunnel	1989

35H	302	SE	Tunnel	1957
36H	302	SE	Tunnel	1973
37I	305	N	Railway Station	1894
38J	312	N	London Transport Station	1957
39J	312	N	London Transport Station	1968
40J	312	N	London Transport Station	1973
41J	312	N	Railway Station	1989
42AV	321	SE	Tunnels	1957
43K	323	SE	Tunnel	1973
44K	323	SE	Tunnel	1968
45K	323	SE	Tunnel	1989
46F	323	SE	Railway Building	1989
47	336	E	Unspecified Station	1948
48L	342	SE	Tunnels	1957
49L	345	SE	Tunnel	1973
50L	345	SE	Tunnel	1968
51L	345	SE	Tunnel	1989
52M	346	N	Railway Sidings	1894
53N	361	SE	Tunnel	1973
54AX	361	SE	Tunnel	1957
55AW	361	SE	Tunnel	1968
56N	361	SE	Tunnel	1989
57O	363	E	Hospital	1957
58O	363	E	Hospital	1948
59P	373	NW	Railway Building	1948
60P	374	NW	Railway Building	1920
61	425	E	London Transport Station	1968
62	434	N	Railway Building	1920
63	436	NW	Railway Building	1968
64V	437	N	Railway Building	1920
65	456	N	Railway Sidings	1866
66Q	462	N	Coal Depot	1968
67Q	462	N	Coal Depot	1957
68S	465	N	Railway Building	1894
69Q	466	N	Railway Buildings	1948
70Q	467	N	Railway Building	1920
71R	471	N	Railway Buildings	1894
72R	475	N	Railway Building	1920
73Q	476	N	Railway Building	1920
74R	476	N	Railway Building	1920
75Q	479	N	Railway Building	1920
76S	480	N	Railway Building	1866
77BA	485	N	Cuttings	1866
78BB	486	N	Cuttings	1957
79BC	487	N	Cuttings	1866
80T	491	N	Railway Building	1894

81T	496	NW	Railway Building	1920
82U	499	NW	Railway Building	1973
83U	499	NW	Railway Building	1968

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary: 6

ID	Distance (m)	Direction	Use	Date
84V	381	N	Gas Board Depot	1953
85V	406	N	Gas Board Depot	1955
86W	416	N	Unspecified Tank	1955
87W	417	N	Unspecified Tank	1953
88AI	475	S	Unspecified Tank	1871
89	496	S	Unspecified Tank	1871

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary: 51

ID	Distance (m)	Direction	Use	Date
90X	108	W	Electricity Substation	1991
91X	108	W	Electricity Substation	1983
92X	109	W	Electricity Substation	1999
93Y	238	E	Electricity Substation	1991
94Y	238	E	Electricity Substation	1984
95Y	259	E	Electricity Substation	1995
96Z	268	N	Electricity Substation	1971
97Z	269	N	Electricity Substation	1994
98Z	269	N	Electricity Substation	1991
99Z	269	N	Electricity Substation	1986
100AA	277	S	Electricity Substation	1991
101AA	277	S	Electricity Substation	1983
102AB	285	N	Electricity Substation	1955
103AB	285	N	Electricity Substation	1991
104AB	285	N	Electricity Substation	1986

105AB	285	N	Electricity Substation	1953
106AB	285	N	Electricity Substation	1971
107AB	285	N	Electricity Substation	1994
108AA	290	S	Electricity Substation	1999
109AC	295	SE	Electricity Substation	1953
110AC	295	SE	Electricity Substation	1955
111AD	306	NW	Electricity Substation	1971
112AD	306	NW	Electricity Substation	1986
113AD	306	NW	Electricity Substation	1991
114AD	306	NW	Electricity Substation	1994
115AE	359	NE	Electricity Substation	1994
116P	371	N	Electricity Substation	1955
117P	371	N	Electricity Substation	1953
118AE	373	NE	Electricity Substation	1985
119AE	373	NE	Electricity Substation	1991
120AE	378	NE	Electricity Substation	1953
121V	381	N	Gas Board Depot	1974
122AF	389	NW	Electricity Substation	1970
123AG	389	SW	Electricity Substation	1994
124AF	389	NW	Electricity Substation	1990
125AG	390	SW	Electricity Substation	1990
126AG	390	SW	Electricity Substation	1991
127AG	390	SW	Electricity Substation	1991
128AH	390	N	Electricity Substation	1986
129AH	390	N	Electricity Substation	1984
130AF	390	NW	Electricity Substation	1992
131AF	390	NW	Electricity Substation	1991
132AF	390	NW	Electricity Substation	1971
133AH	390	N	Electricity Substation	1994
134AH	390	N	Electricity Substation	1955
135V	406	N	Gas Board Depot	1955
136AI	480	S	Electricity Substation	1953
137AI	480	S	Electricity Substation	1994
138AJ	492	NE	Electricity Substation	1991
139AJ	493	NE	Electricity Substation	1985
140AJ	493	NE	Electricity Substation	

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 49

ID	Distance (m)	Direction	Use	Date
141AK	55	S	Garage	1999
142AK	58	S	Garage	1991
143AK	58	S	Garage	1967
144AK	84	S	Garage	1955
145AK	84	S	Garage	1953
146AK	84	S	Garage	1962
147AL	132	S	Garage	1955
148AL	132	S	Garage	1967
149AL	132	S	Garage	1962
150AL	132	S	Garage	1953
151AL	143	S	Garage	1991
152AL	143	S	Garage	1983
153AL	146	S	Garage	1999
154AM	253	S	Garage	1991
155AM	253	S	Garage	1983
156AM	253	S	Garage	1967
157AM	253	S	Garage	1962
158AM	253	S	Garage	1953
159AM	254	S	Garage	1999
160AM	258	S	Garage	1955
161AN	268	NE	Garage	1973
162AN	268	NE	Garage	1967
163AN	268	NE	Garage	1962
164AN	269	NE	Garage	1995
165AN	269	NE	Garage	1991
166AN	269	NE	Garage	1978
167AN	269	NE	Garage	1984
168AN	269	NE	Garage	1979
169AN	297	NE	Garage	1967
170AN	297	NE	Garage	1994
171AN	297	NE	Garage	1985
172AN	297	NE	Garage	1991
173AN	297	NE	Garage	1991
174AO	316	NE	Garage	1985
175AO	316	NE	Garage	1967

176AO	322	NE	Garage	1955
177AO	323	NE	Garage	1953
178AP	345	E	Garage	1967
179AP	345	E	Garage	1962
180AQ	374	SE	Garage	1973
181AQ	374	SE	Garage	1995
182AQ	374	SE	Garage	1991
183AQ	385	SE	Garage	1979
184AQ	387	SE	Garage	1984
185AQ	387	SE	Garage	1978
186AQ	387	SE	Garage	1983
187AQ	387	SE	Garage	1991
188AR	391	S	Garage	
189AR	391	S	Garage	

1.6 Potentially Infilled Land

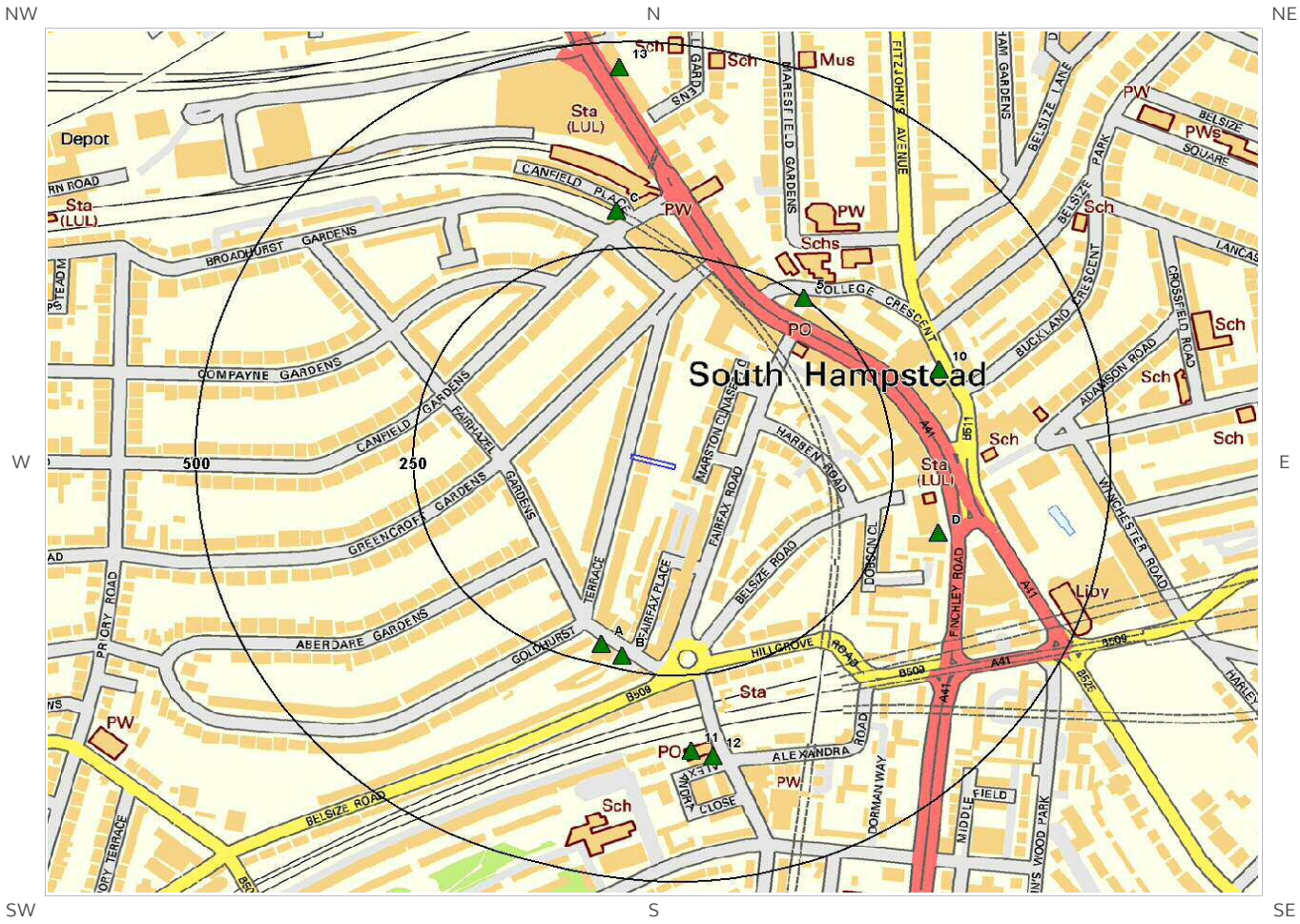
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 34

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
190AS	146	NE	Air Shaft	1920
191AT	152	NE	Air Shaft	1948
192AS	158	NE	Air Shaft	1957
193AT	162	E	Tunnel	1968
194A	162	E	Tunnel	1973
195A	162	E	Tunnel	1957
196AU	201	SE	Air Shaft	1948
197AU	203	SE	Air Shaft	1920
198AU	204	SE	Air Shaft	1957
199H	302	SE	Tunnel	1973
200H	302	SE	Tunnel	1968
201H	302	SE	Tunnel	1989
202H	302	SE	Tunnel	1957
203AV	321	SE	Tunnels	1957
204K	323	SE	Tunnel	1973
205K	323	SE	Tunnel	1968
206K	323	SE	Tunnel	1989
207L	342	SE	Tunnels	1957
208L	345	SE	Tunnel	1973
209L	345	SE	Tunnel	1968
210L	345	SE	Tunnel	1989
211AW	361	SE	Tunnel	1968
212N	361	SE	Tunnel	1989
213N	361	SE	Tunnel	1973

214AX	361	SE	Tunnel	1957
215AY	412	S	Air Shaft	1968
216AY	412	S	Air Shaft	1948
217AY	412	S	Air Shaft	1957
218AY	415	S	Air Shaft	1920
219AZ	475	SE	Air Shaft	1973
220AZ	475	SE	Air Shaft	1968
221BA	485	N	Cuttings	1866
222BB	486	N	Cuttings	1957
223BC	487	N	Cuttings	1866

2. Environmental Permits, Incidents and Registers Map



- Site Outline
- Search Buffers (m) — 250 — 500
- Recorded Pollution Incident
- Dangerous Substances (List 1)
- Dangerous Substances (List 2)
- Water Industry Referrals
- Licenced Discharge Consents
- Red List Discharge Consents
- RAS 3 & 4 Authorisations
- Part A(1) Authorised Processes and Historic IPC Authorisations
- Part A(2) and Part B Authorised Processes
- COMAH / NIHHS Sites
- Sites Determined as Contaminated Land
- Hazardous Substance Consents and Enforcements

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

13

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
1A	227	S	526238 184135	Address: Sqweaky Clean Professional Dry Cleaners, 13 Fairhazel Gardens, NW6 3QE Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
2A	227	S	526238 184135	Address: Swiss Dry Cleaners, 13 Fairhazel Gardens, NW6 3QE Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
3B	236	S	526262 184120	Address: Connoisseur Dry Cleaners, 3-5 Fairhazel Gardens Swiss Cottage, NW6 3QE Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
4B	236	S	526262 184120	Address: Connoisseur Dry Cleaners, 3-5 Fairhazel Gardens, Swiss Cottage, NW6 3QE Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
5	248	NE	526471 184554	Address: BP Hampsted Connect, 104a Finchley Road, London, NW3 5EY Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
6C	293	N	526256 184660	Address: I.S. Dry Cleaners, 6 Canfield Gardens, London, NW6 3BS Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
7C	293	N	526256 184660	Address: I.S.Dry Cleaners, 6 Canfield Gardens, NW6 3BS Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
8D	312	E	526625 184269	Address: Swiss Cottage Dry Cleaners, 121 Finchley Road, NW3 6HY Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
9D	312	E	526625 184269	Address: Swiss Cottage Dry Cleaners, 121 Finchley Road, NW3 6HY Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Distance (m)	Direction	NGR	Details	
10	323	E	526627 184467	Address: Red Spot Dry Cleaners, 26 Northways Parade, College Crescent, N1 1ED Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
11	344	S	526342 184005	Address: Masterclean , 6 Langtry Walk, London, NW8 0DU Process: Dry Cleaning Status: Revoked Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
12	352	S	526367 183999	Address: Masterclean, 2 Langtry Walk, South Hampstead, NW8 0DU Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
13	467	N	526259 184834	Address: Executive Clean Dry Cleaners, 148 Finchley Road, NW3 5HS Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

0

Database searched and no data found.

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:	0

Database searched and no data found.

2.3 Environment Agency Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

0

Database searched and no data found.

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

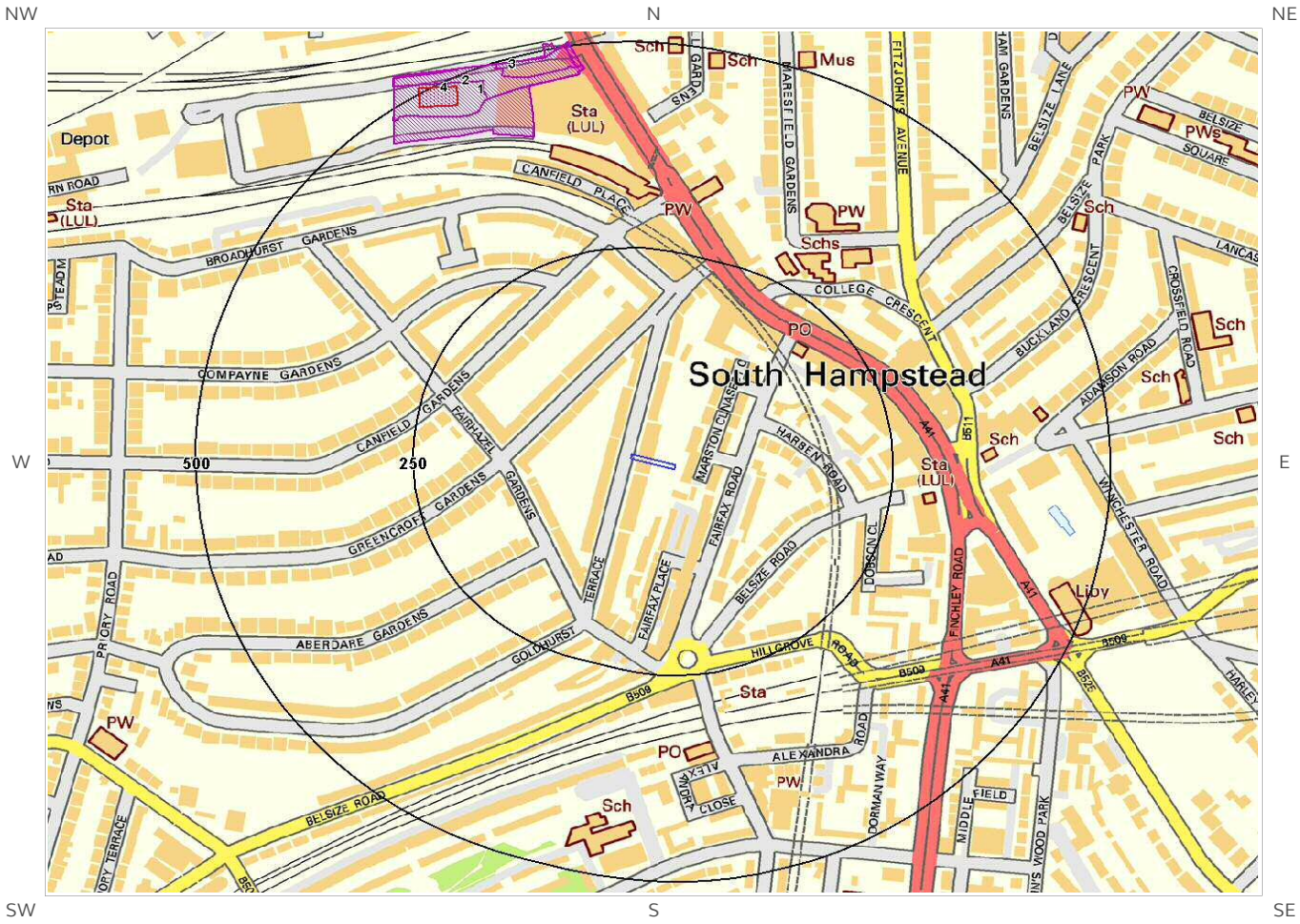
Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?	0

Database searched and no data found.

3. Landfill and Other Waste Sites Map



Site Outline

250 — 500 — Search Buffers (m)

E.A. Active Landfill

E.A. Historic Landfill

BGS / DoE Survey Landfill

Historic and Planned Waste Sites

E.A. Licensed Waste Site

Local Authority/Historical Mapping Landfill Records

3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

1

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
4	468	NW	526000 184800	Site Address: Canfield Place, London NW6 Waste Licence: - Site Reference: DON009 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

0

Database searched and no data found.

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

3

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

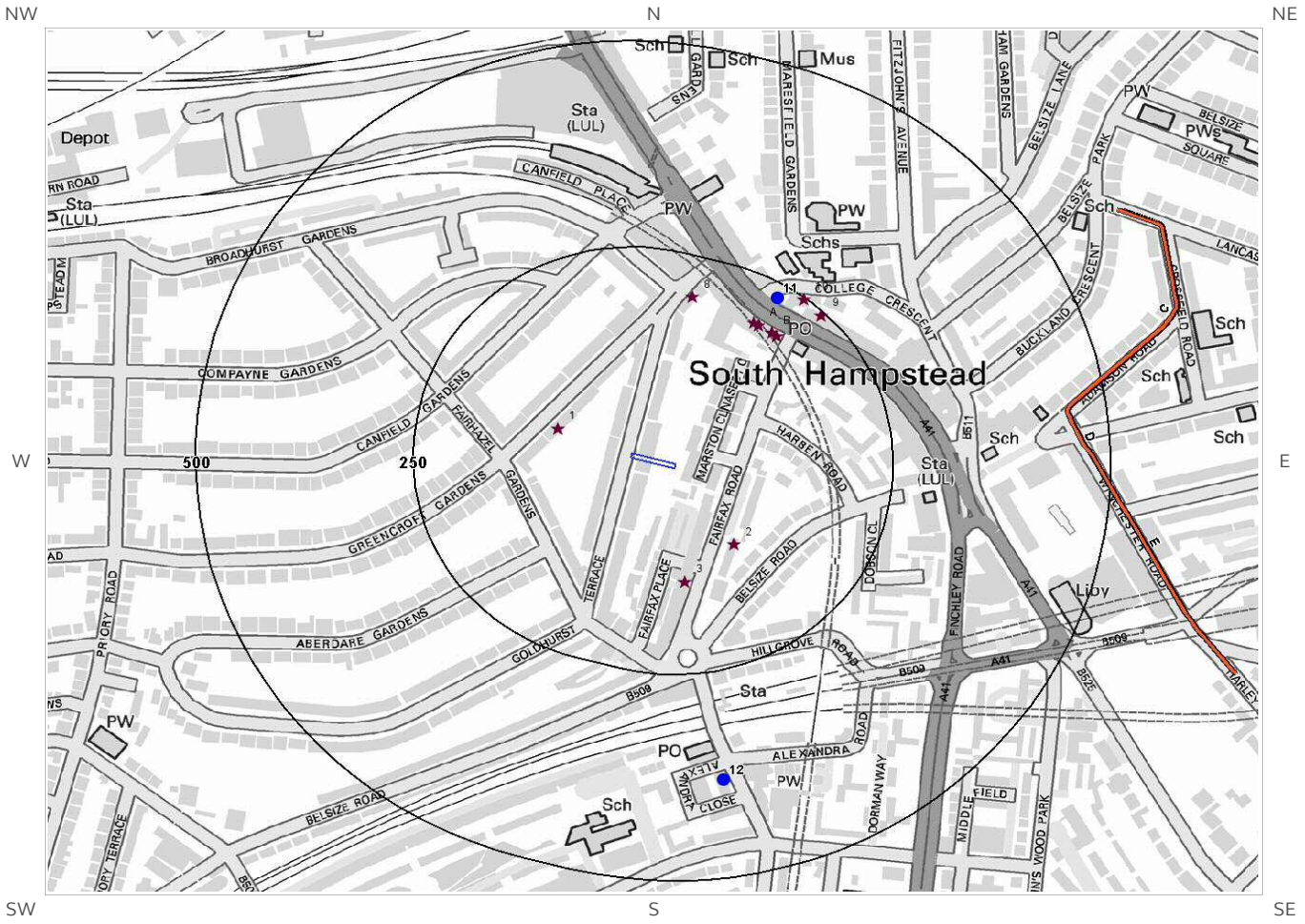
ID	Distance (m)	Direction	NGR	Details		
1	401	N	526109 184803	Type of Site: Waste Transfer Station Site Address: N/A	Planning Application Reference: N/A Date: 1994	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
2	451	NW	526076 184811	Type of Site: Refuse Transfer Depot Site Address: N/A	Planning Application Reference: N/A Date: 1986	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
3	461	N	526109 184831	Type of Site: Refuse Transfer Depot Site Address: N/A	Planning Application Reference: N/A Date: 1970	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

3.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

0

Database searched and no data found.

4. Current Land Use Map



Site Outline

Search Buffers (m)

Current Industrial Sites

Petrol & Fuel Sites

Electricity Transmission Cables

Gas Transmission Pipelines

4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 10

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	90	W	Easaphone Services	526188 184397	29a, Greencroft Gardens, London, NW6 3LN	Radar and Telecommunications Equipment	Industrial Products
2	114	SE	Anthony Rau	526391 184256	38, Fairfax Road, London, NW6 4HA	Furniture	Consumer Products
3	137	S	Wooden Floors	526334 184211	71-73, Fairfax Road, London, NW6 4EE	Construction Completion Services	Construction Services
4A	193	NE	Specsavers Hearcare	526418 184522	171, Finchley Road, London, NW3 6LB	Disability and Mobility Equipment	Consumer Products
5B	193	NE	Taurus Beds	526433 184513	167a, Finchley Road, London, NW3 6LB	Beds and Bedding	Consumer Products
6A	194	NE	Specsavers Hearcare	526413 184525	171a, Finchley Road, London, NW3 6LB	Disability and Mobility Equipment	Consumer Products
7B	194	NE	Taurus Beds	526439 184509	167, Finchley Road, London, NW3 6LB	Beds and Bedding	Consumer Products
8	201	N	Lanka	526342 184556	9, Goldhurst Terrace, London, NW6 3HX	Baking and Confectionery	Foodstuffs
9	246	NE	Chimney Cake Bakers	526490 184534	16, New College Parade, London, NW3 5EP	Baking and Confectionery	Foodstuffs
10	249	NE	Hampstead Connect	526471 184554	104a, Finchley Road, London, NW3 5EY	Petrol and Fuel Stations	Road and Rail

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 2

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
11	233	NE	526441 184555	BP	Hampstead Service Station, 104A, Finchley Road, Finchley Road, Hampstead, London, Greater London, NW3 5EY	No	Open

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
12	381	S	526379 183971	Total	Boundary Road Service Station, 150, Loudon Road, Loudon Road, St Johns Wood, London, Greater London, NW8 0DH	Not Applicable	Obsolete

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site: 12

The following Underground Electricity Transmission Cable records are represented as linear features on the Current Land Use map:

ID	Distance (m)	Direction	Details	
13C	454	E	Cable Set: - Cable Route: - Cable Make: -	Cable Type: PILOT Operating Voltage (kV): - Year of installation: - Cable in tunnel: -
14C	454	E	Cable Set: - Cable Route: MILL HILL - ST JOHNS WOOD 2 Cable Make: -	Cable Type: DECOMMISSIONED Operating Voltage (kV): 275 Year of installation: - Cable in tunnel: -
15C	455	E	Cable Set: - Cable Route: MILL HILL - ST JOHNS WOOD 1 Cable Make: -	Cable Type: DECOMMISSIONED Operating Voltage (kV): 275 Year of installation: - Cable in tunnel: -
16D	455	E	Cable Set: - Cable Route: - Cable Make: -	Cable Type: PILOT Operating Voltage (kV): - Year of installation: - Cable in tunnel: -
17C	455	E	Cable Set: - Cable Route: - Cable Make: -	Cable Type: PILOT Operating Voltage (kV): - Year of installation: - Cable in tunnel: -
18D	456	E	Cable Set: - Cable Route: MILL HILL - ST JOHNS WOOD Cable Make: -	Cable Type: DECOMMISSIONED Operating Voltage (kV): 275 Year of installation: - Cable in tunnel: -
19D	457	E	Cable Set: - Cable Route: MILL HILL - ST JOHNS WOOD 1 Cable Make: -	Cable Type: DECOMMISSIONED Operating Voltage (kV): 275 Year of installation: - Cable in tunnel: -
20D	458	E	Cable Set: - Cable Route: - Cable Make: -	Cable Type: PILOT Operating Voltage (kV): - Year of installation: - Cable in tunnel: -

ID	Distance (m)	Direction	Details	
21E	476	E	Cable Set: - Cable Route: - Cable Make: -	Cable Type: PILOT Operating Voltage (kV): - Year of installation: - Cable in tunnel: -
22E	477	E	Cable Set: - Cable Route: MILL HILL - ST JOHNS WOOD 2 Cable Make: -	Cable Type: DECOMMISSIONED Operating Voltage (kV): 275 Year of installation: - Cable in tunnel: -
23E	477	E	Cable Set: - Cable Route: MILL HILL - ST JOHNS WOOD 1 Cable Make: -	Cable Type: DECOMMISSIONED Operating Voltage (kV): 275 Year of installation: - Cable in tunnel: -
24E	479	E	Cable Set: - Cable Route: - Cable Make: -	Cable Type: PILOT Operating Voltage (kV): - Year of installation: - Cable in tunnel: -

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site: 0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.3 Bedrock and Solid Geology

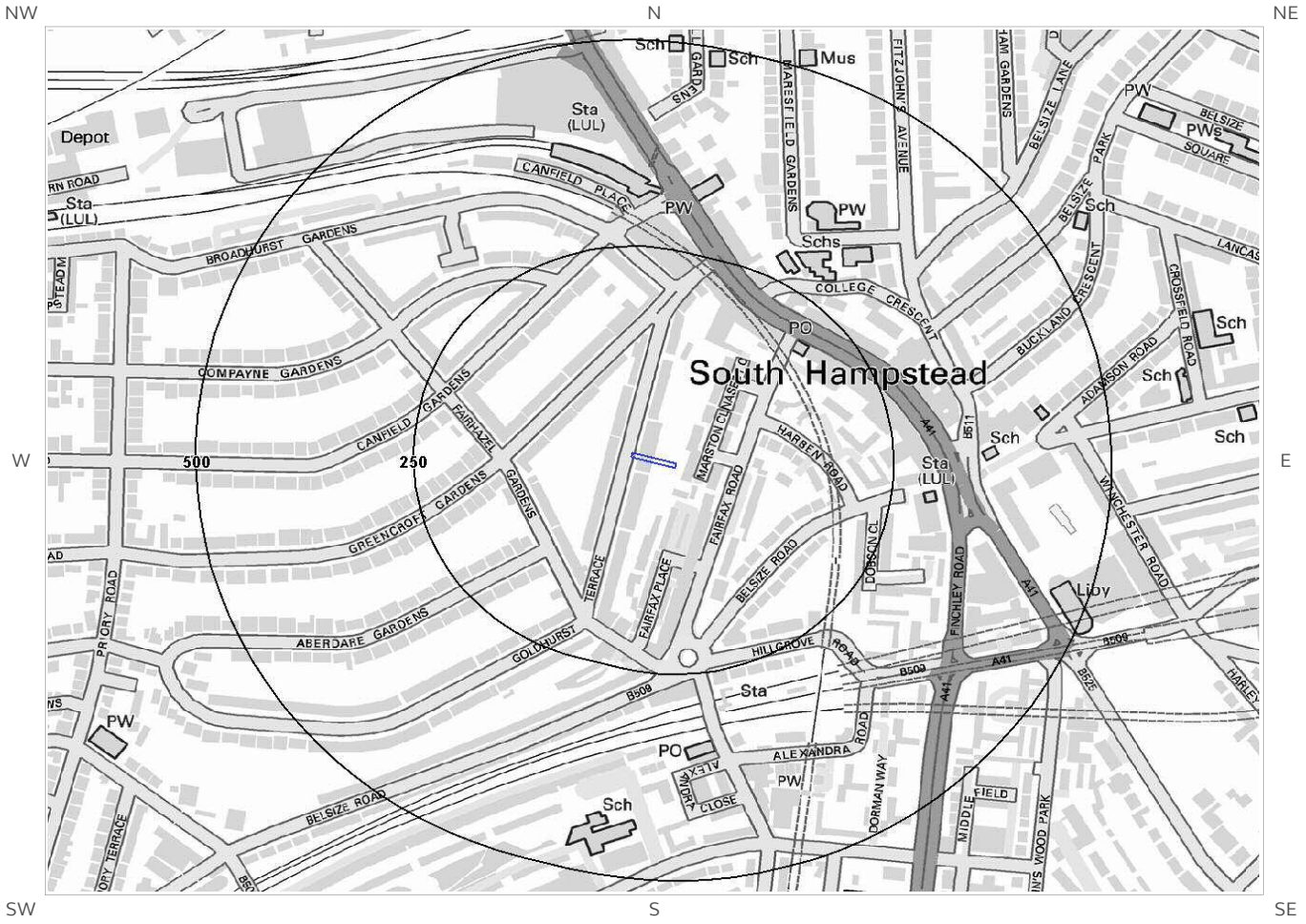
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LC-CLSISA	LONDON CLAY FORMATION	CLAY, SILT AND SAND

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

6a. Aquifer Within Superficial Geology



Site Outline

250 — 500 — Search Buffers (m)

Principal Aquifer

Secondary (A) Aquifer - Permeable Layers

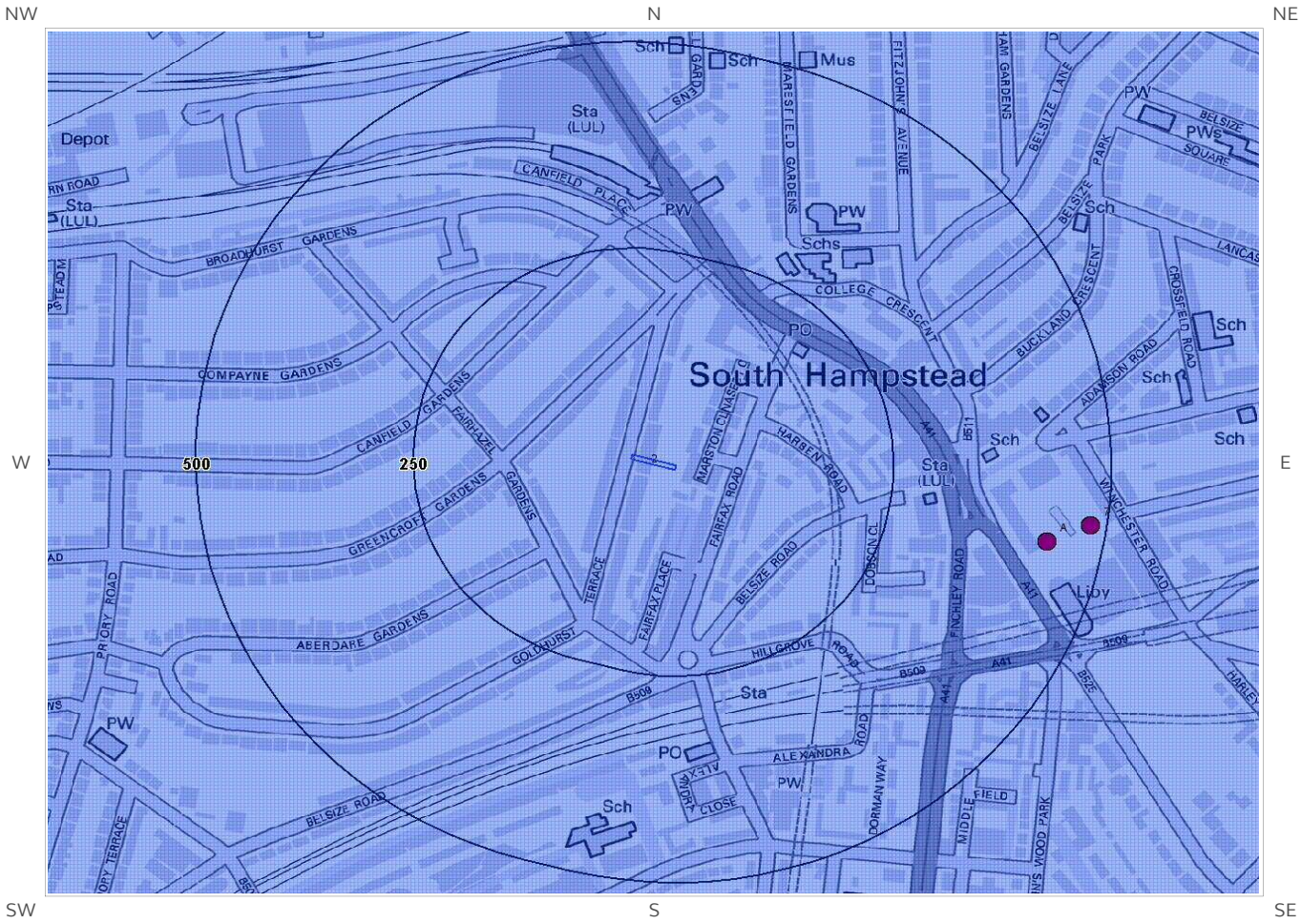
Secondary (B) Aquifer - Lower Permeability Layers

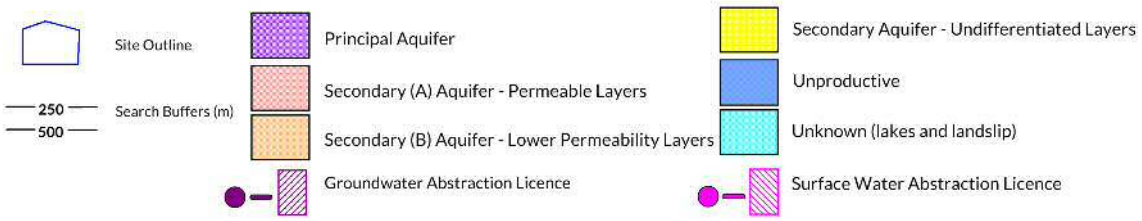
Secondary Aquifer - Undifferentiated Layers

Unproductive

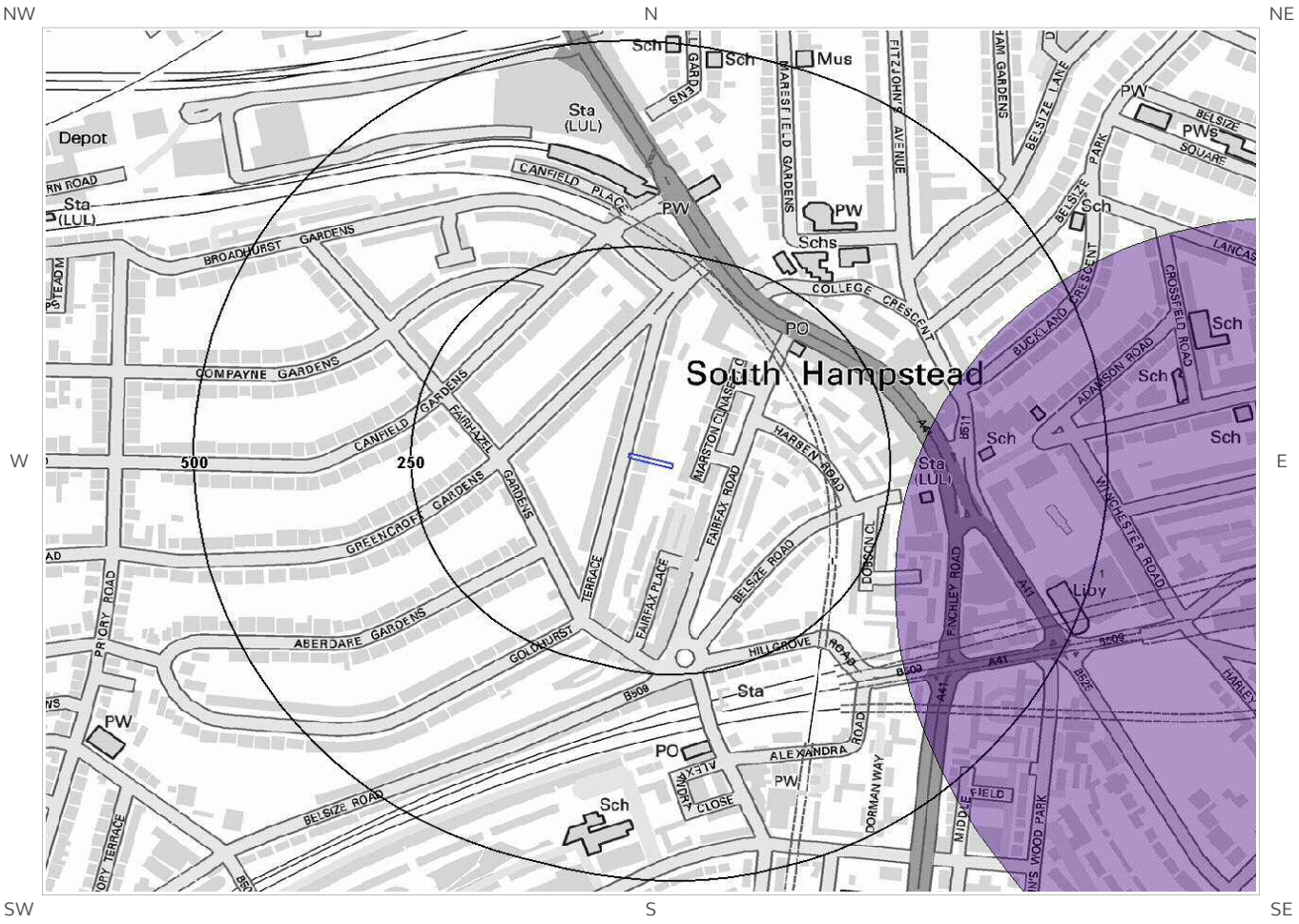
Unknown (lakes and landslip)

6b. Aquifer Within Bedrock Geology and Abstraction Licenses





6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



Site Outline

250 500 Search Buffers (m)

Source Protection Zone 1 - Inner Catchment

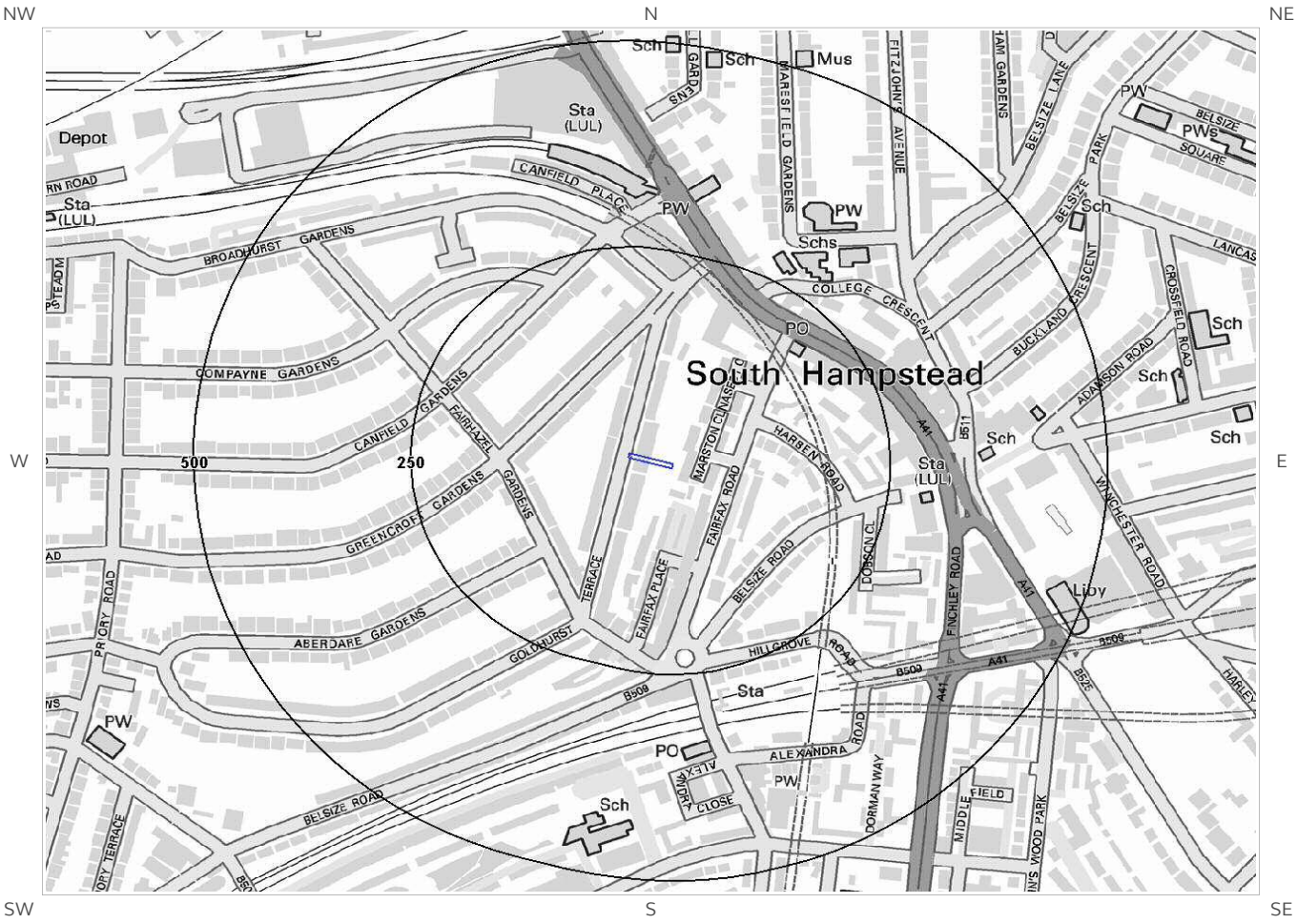
Source Protection Zone 2 - Outer Catchment

Source Protection Zone 3 - Total Catchment

Source Protection Zone 4 - Zone of Special Interest

Potable Water Abstraction Licence

6d. Hydrogeology – Source Protection Zones within confined aquifer



Site Outline

250 500 Search Buffers (m)

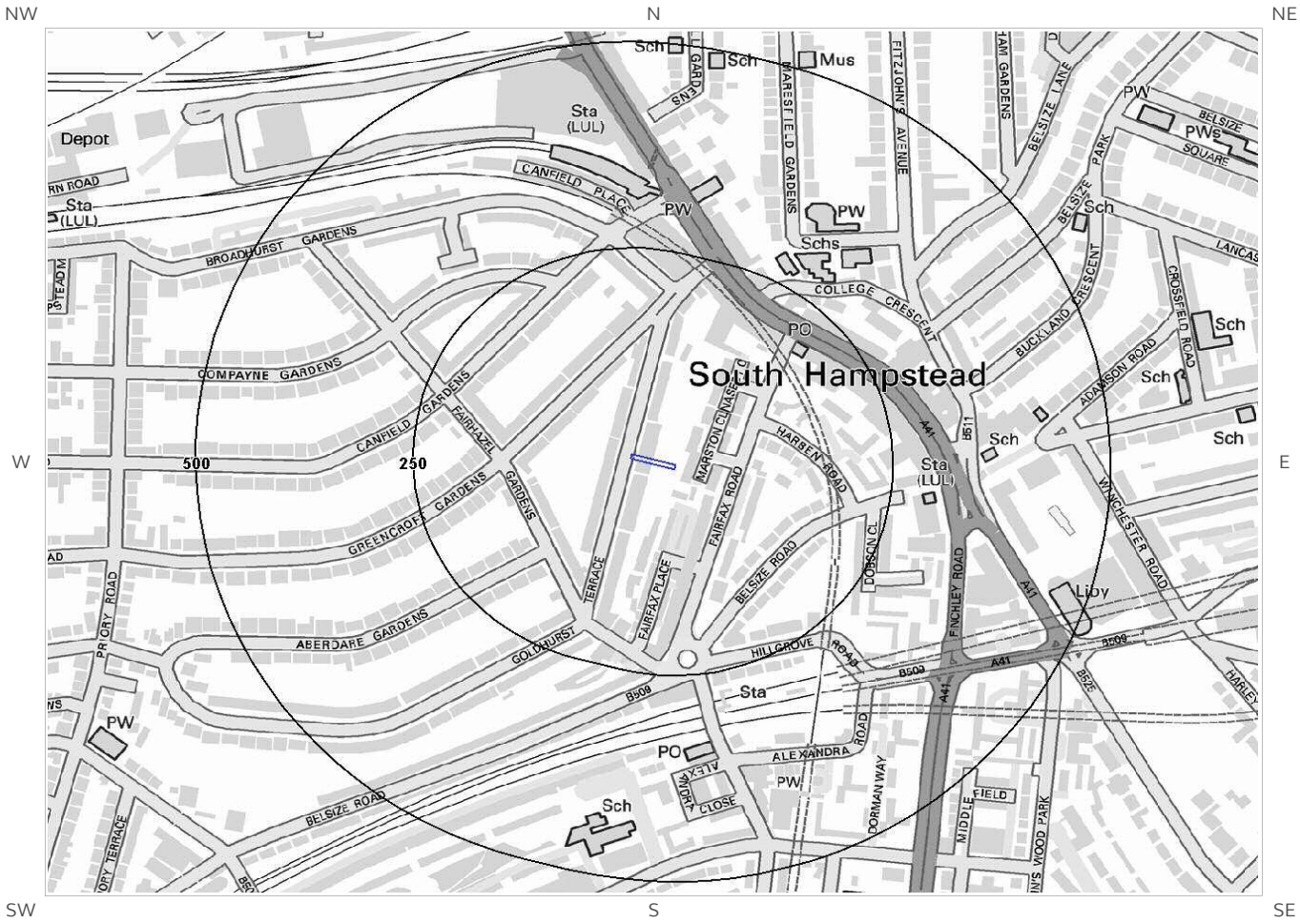
Source Protection Zone 1 - Inner Catchment

Source Protection Zone 2C - Outer Catchment within Confined Aquifer

Source Protection Zone 3C - Total Catchment within Confined Aquifer

Potable Water Abstraction Licence

6e. Hydrology – Detailed River Network and River Quality



Site Outline

250
500
Search Buffers (m)

Primary River
Secondary River
Tertiary River
Lake/Reservoir
Underground River (inferred)
General Quality Assessment: Biology
General Quality Assessment: Chemistry

Canal
Canal Tunnel
Culvert
Multiple Channel Culvert
Underground River (Potential Sewer)
Underground River (local knowledge)

6.Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? No

Database searched and no data found.

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
2	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site? Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details	
4A	436	E	526750 184261	Status: Historical Licence No: TH/039/0039/087 Details: General Washing/Process Washing Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point Name: LONDON BOROUGH OF CAMDEN	Annual Volume (m^3): 10512 Max Daily Volume (m^3): 28.8 Original Application No: NPS/WR/014567 Original Start Date: 5/12/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 5/12/2013 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
5A	436	E	526750 184261	Status: Historical Licence No: TH/039/0039/087 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point Name: LONDON BOROUGH OF CAMDEN	Annual Volume (m^3): 10512 Max Daily Volume (m^3): 28.8 Original Application No: NPS/WR/014567 Original Start Date: 5/12/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 5/12/2013 Version End Date:
6A	436	E	526750 184261	Status: Historical Licence No: TH/039/0039/087 Details: Lake & Pond Throughflow Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point Name: LONDON BOROUGH OF CAMDEN	Annual Volume (m^3): 10512 Max Daily Volume (m^3): 28.8 Original Application No: NPS/WR/014567 Original Start Date: 5/12/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 5/12/2013 Version End Date:
7	482	E	526800 184280	Status: Historical Licence No: 28/39/39/0219 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point Name: LONDON BOROUGH OF CAMDEN	Annual Volume (m^3): 10512 Max Daily Volume (m^3): 28.8 Original Application No: WRA/N/1407 Original Start Date: 12/8/2005 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 1/4/2008 Version End Date:
Not shown	1466	SE	527636 183697	Status: Historical Licence No: TH/039/0039/058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Barrow Hill Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m^3): 631000 Max Daily Volume (m^3): 2000 Original Application No: NPS/WR/009229 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 1/4/2013 Version End Date:
Not shown	1472	SE	527640 183690	Status: Historical Licence No: 28/39/39/0231 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m^3): 631000 Max Daily Volume (m^3): 2000 Original Application No: WRA/R/1026 Original Start Date: 1/4/2007 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 1/4/2007 Version End Date:
Not shown	1472	SE	527640 183690	Status: Historical Licence No: 28/39/39/0202 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m^3): 631000 Max Daily Volume (m^3): 2000 Original Application No: WRA/2/2(24) Original Start Date: 26/9/2002 Expiry Date: 31/3/2007 Issue No: 1 Version Start Date: 26/9/2002 Version End Date:
Not shown	1926	SE	528000 183400	Status: Historical Licence No: 28/39/39/0035 Details: Animal Watering & General Use in non Farming situations Direct Source: Thames Groundwater Point: Borehole At Regent's Park, London Nw1 Data Type: Point Name: ZOOLOGICAL SOCIETY OF LONDON	Annual Volume (m^3): 681.9 Max Daily Volume (m^3): 59 Original Application No: - Original Start Date: 4/4/1966 Expiry Date: - Issue No: 100 Version Start Date: 4/4/1966 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distance (m)	Direction	NGR	Details	
Not shown	1466	SE	527636 183697	Status: Active Licence No: TH/039/0039/058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Barrow Hill Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m^3): 631000 Max Daily Volume (m^3): 2000 Original Application No: NPS/WR/009229 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:
Not shown	1472	SE	527640 183690	Status: Historical Licence No: 28/39/39/0231 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m^3): 631000 Max Daily Volume (m^3): 2000 Original Application No: WRA/R/1026 Original Start Date: 1/4/2007 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:
Not shown	1472	SE	527640 183690	Status: Historical Licence No: 28/39/39/0202 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m^3): 631000 Max Daily Volume (m^3): 2000 Original Application No: WRA/2/2(24) Original Start Date: 26/9/2002 Expiry Date: 31/3/2007 Issue No: 1 Version Start Date: Version End Date:

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? Yes

The following Source Protection Zones records are represented on the SPZ and Potable Water Abstraction Map (6c):

ID	Distance (m)	Direction	Zone	Description
1	269	E	2	Outer catchment

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site? No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site? No

Database searched and no data found.

6.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? No

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site? No

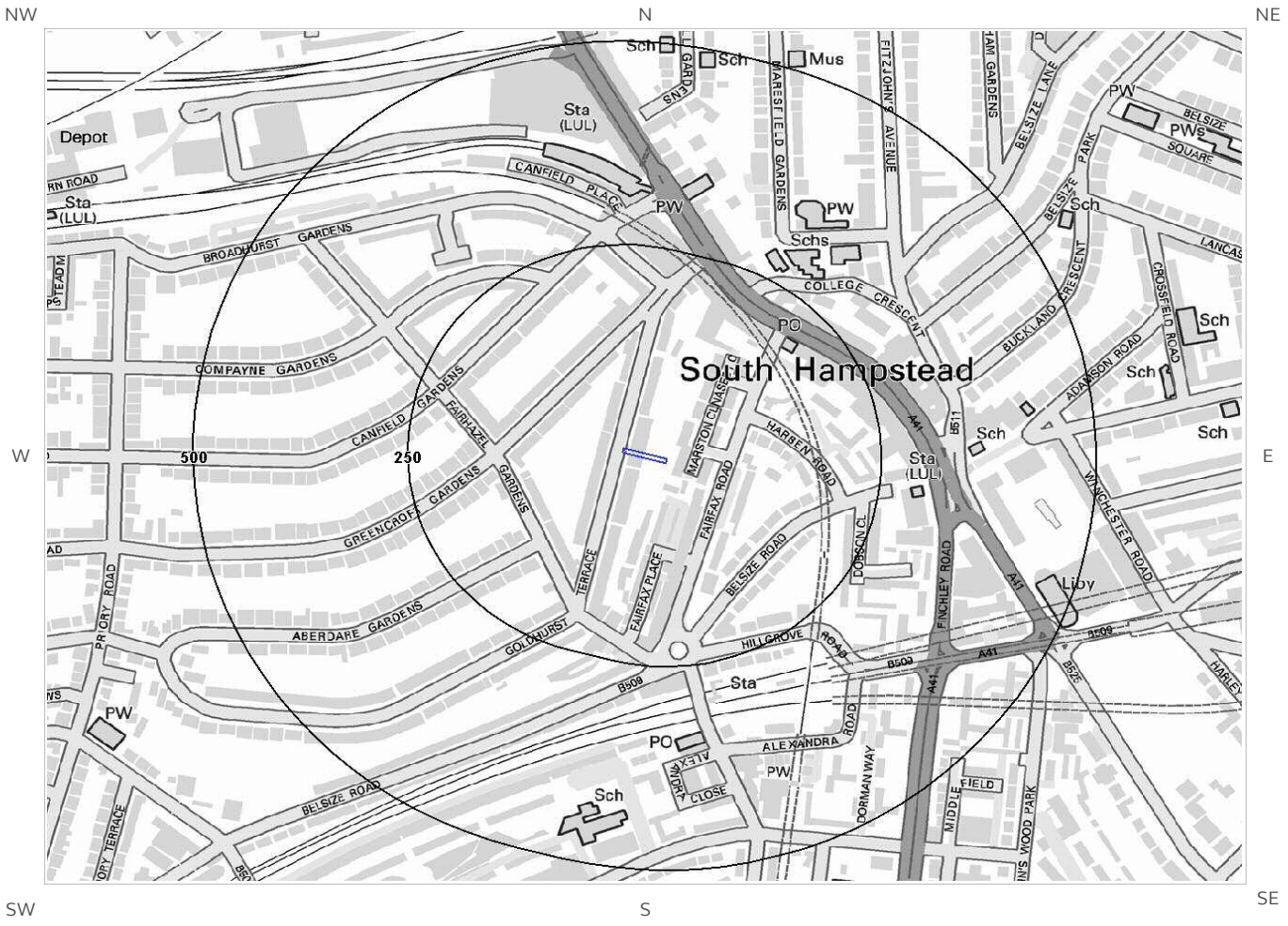
Database searched and no data found.

6.11 Surface Water Features

Are there any surface water features within 250m of the study site?	No

Database searched and no data found.

7a. Environment Agency Flood Map for Planning (from rivers and the sea)



Site Outline

100
250
Search Buffers (m)

Zone 2 Floodplain

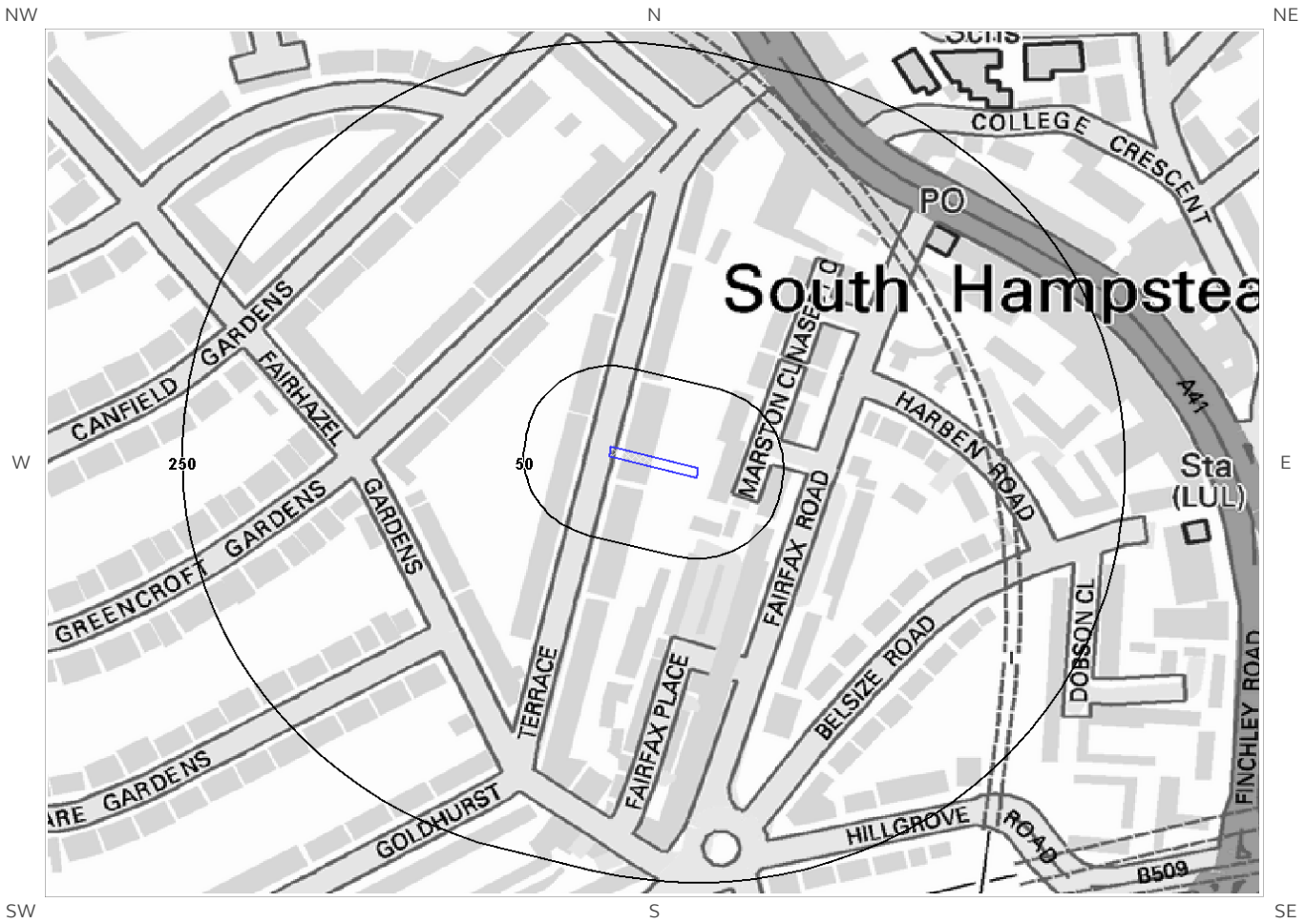
Zone 3 Floodplain

Flood Defences

Area used for Flood Storage

Area Benefiting from Flood Defences

7b. Environment Agency Risk of Flooding from Rivers and the Sea (RoFRaS) Map



Site Outline

100 250 Search Buffers (m)

RoFRaS Rating

- Very Low
- Low
- Medium
- High

7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency Zone 2 floodplain? No

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency Zone 3 floodplain? No

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? Very Low

The Environment Agency RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

---

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? No

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Not Prone

The area is not considered to be prone to groundwater flooding based on rock type.

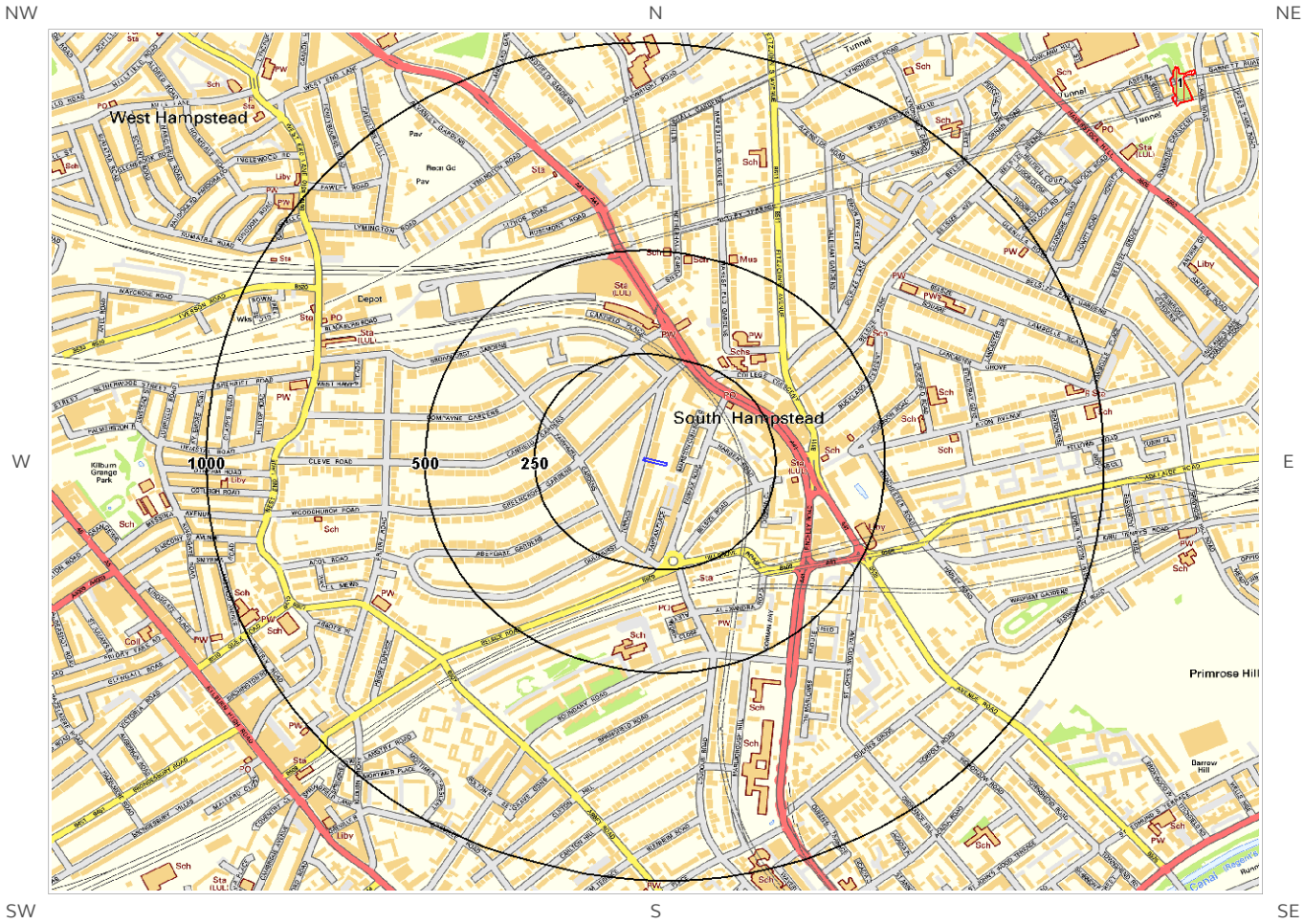
7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result? Not Applicable

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



Site Outline

100
250
Search Buffers (m)

AONB

National Park

SSSI

Special Protection Areas

Nitrate Vulnerable Zones

Green Belt

Environmentally Sensitive Areas

Special Areas of Conservation

World Heritage Sites

Nitrate Sensitive Areas

Ancient Woodland

National Nature Reserve

Local Nature Reserves

Ramsar Sites

8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?	Yes

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

0

Database searched and no data found.

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

3

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
1	1449	NE	Belsize Wood	Natural England
Not shown	1501	SE	St John's Wood Church Grounds	Natural England
Not shown	1990	NW	Westbere Copse	Natural England

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

0

Database searched and no data found.

8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a Groundsure Geo Insight, available from our website. The following information has been found:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell*[*] hazard rating identified on the study site? Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

What is the maximum Running Sand** hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

* This indicates an automatically generated 50m buffer and site.

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing
ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? No

Database searched and no data found.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No
Guidance: No Guidance Required.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

British Geological Survey Enquiries
Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:
Web:**www.bgs.ac.uk**
BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency
National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 08708 506 506
Web:**www.environment-agency.gov.uk**
Email:**enquiries@environment-agency.gov.uk**

Public Health England
Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe
Email:**enquiries@phe.gov.uk**
Main switchboard**: 020 7654 8000**

The Coal Authority
200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

Ordnance Survey
Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

Local Authority
Authority: London Borough of Camden
Phone: 020 7974 4444
Web: http://www.camden.gov.uk/
Address: Camden Town Hall, Judd Street, London, WC1H 9JE

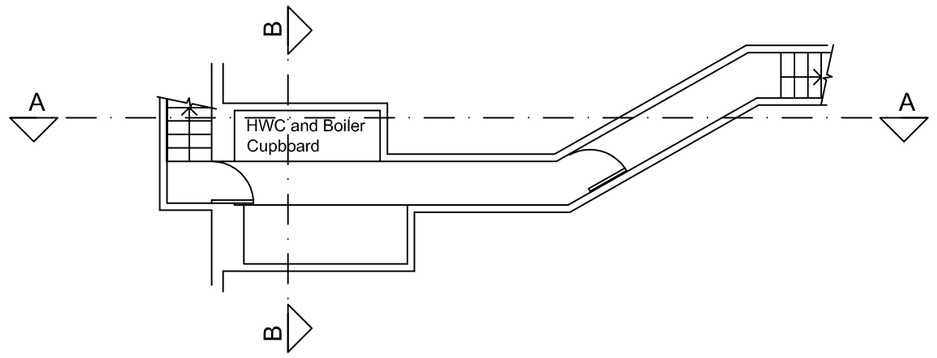
Gemapping PLC
Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444

Standard Terms and Conditions

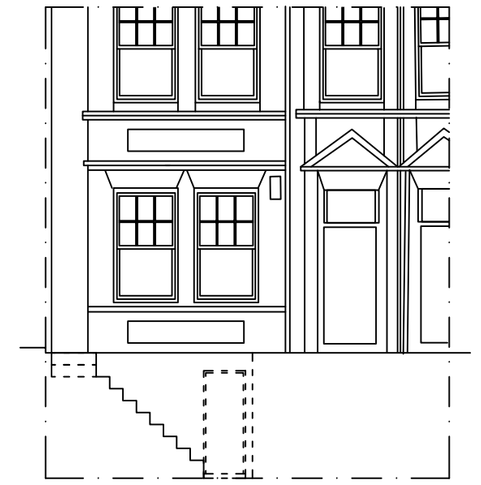
Groundsure's Terms and Conditions can be viewed online at this link:
https://www.groundsure.com/terms-and-conditions-sept-2016

APPENDIX B

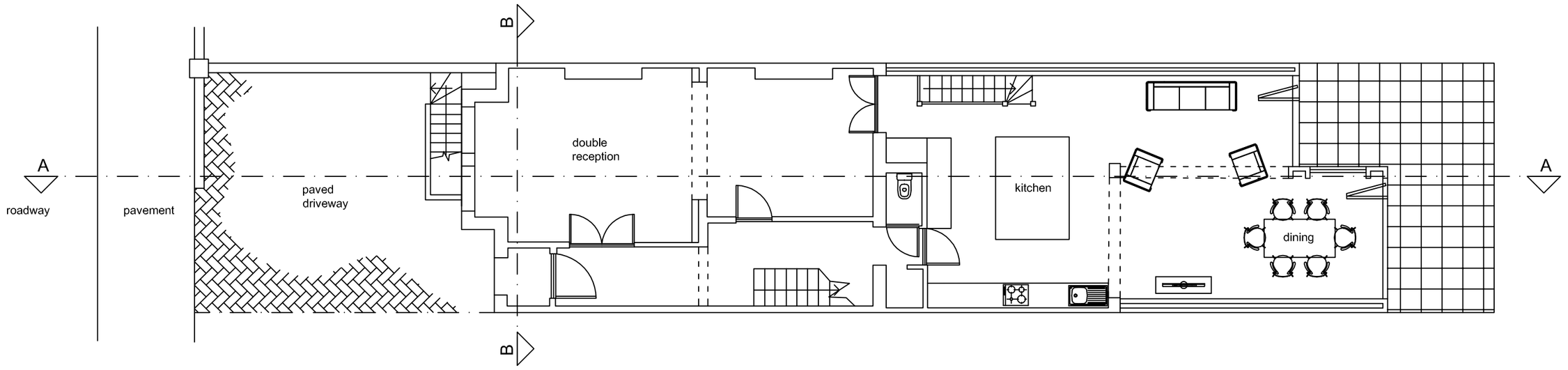
Site Plans



Existing Basement Plan

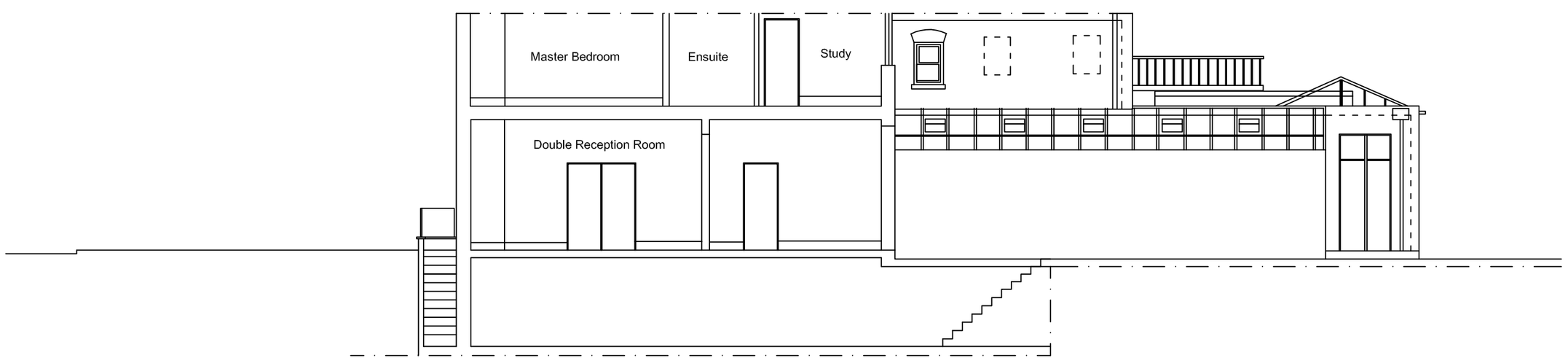


Existing Front Elevation

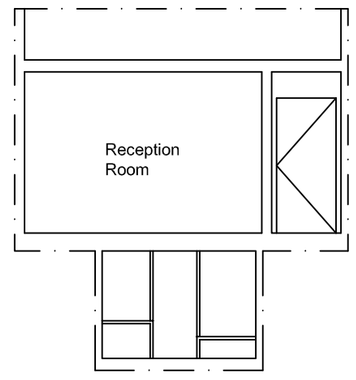


Existing Ground Plan

Existing Rear Elevation



Existing Section A-A



Existing Section B-B

DIG FOR VICTORY

PROJECT
63 GOLDHURST TERRACE
LONDON, NW6 3HB

DRAWING TITLE
EXISTING PLANS, SECTIONS AND ELEVATIONS

REF
63GT

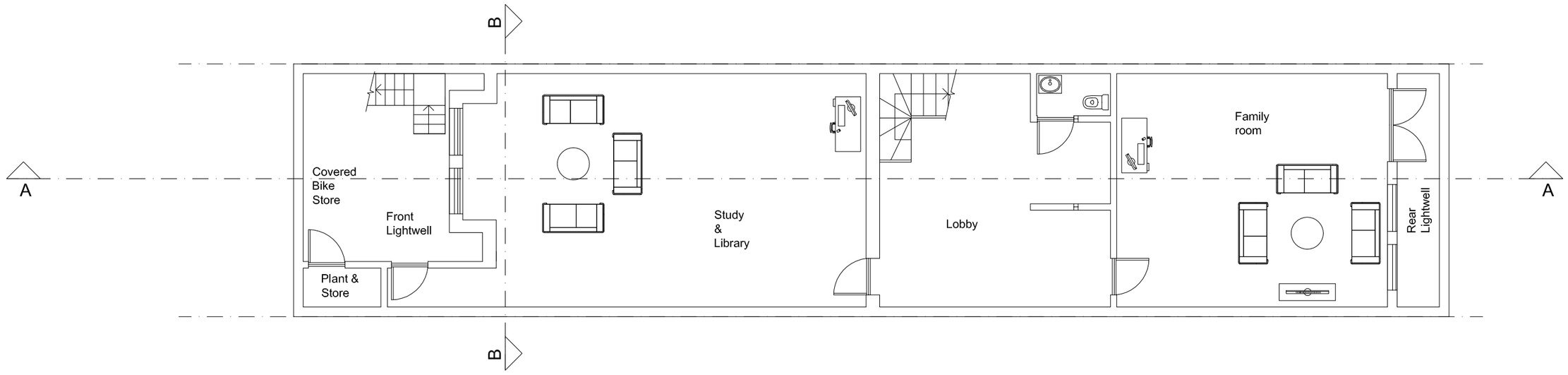
DRAWING NUMBER
E-01

DATE
OCTOBER 2014

SCALE
1:100 @ A2

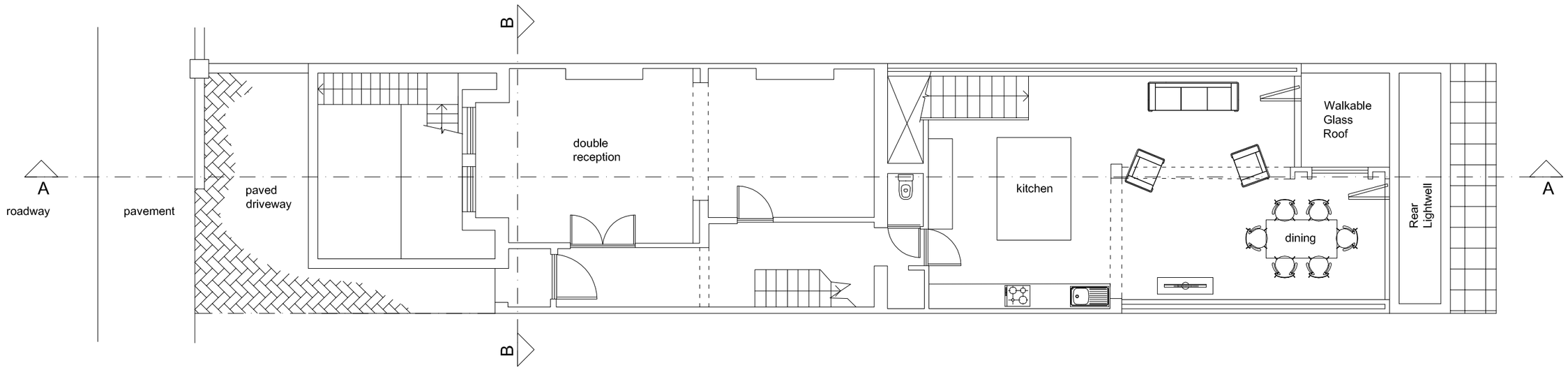
REV
-

A2



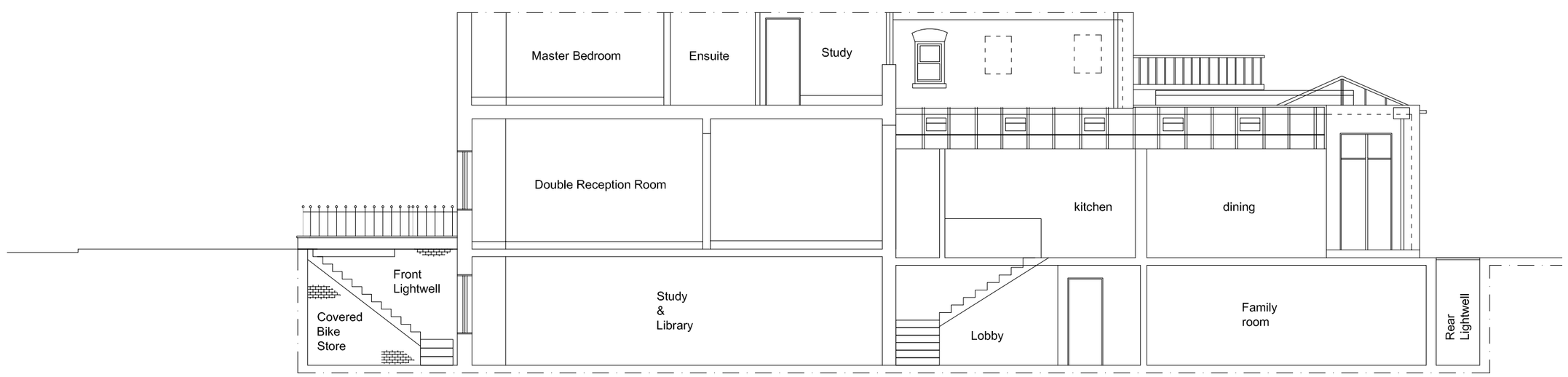
Proposed Basement Plan

Propsed Front Elevation

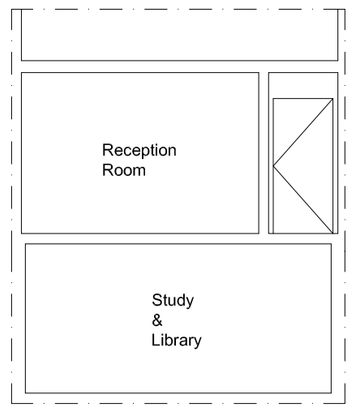


Proposed Ground Floor Plan

Proposed Rear Elevation



Proposed Section A-A



Proposed Section B-B

DIG FOR VICTORY

PROJECT	DRAWING TITLE
63 GOLDHURST TERRACE LONDON, NW6 3HB	PROPOSED PLANS, SECTIONS AND ELEVATIONS
REF	DRAWING NUMBER
63GT	P-01
DATE	SCALE / REV
OCTOBER 2014	1:100 @ A2 / -

A2