Stag Brewery, Mortlake

Ground Conditions and Contamination EIA Report

For Reselton Properties

February 2018

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This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS OHSAS 18001:2007)

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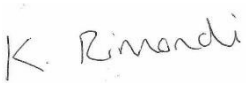

Comments

Comments

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1. Introduction

This ground conditions EIA report has been prepared by Waterman Infrastructure and Environment Ltd (Waterman IE) on behalf of Reselton Properties Limited ('the Applicant') in relation to three linked planning applications for the comprehensive redevelopment of the former Stag Brewery site in Mortlake and land at Chalkers Corner ('the Site') within the London Borough of Richmond Upon Thames ('LBRuT').

This report presents the assessment of the likely significant ground conditions and contamination effects associated with the proposed demolition, alteration, refurbishment and construction works ('the Works'), and once the Development is completed and operational (see below for a definition of the Development). This report comprises the Environmental Statement (ES) Chapter and associated figures and appendices.

1.1 Report Context and Approach

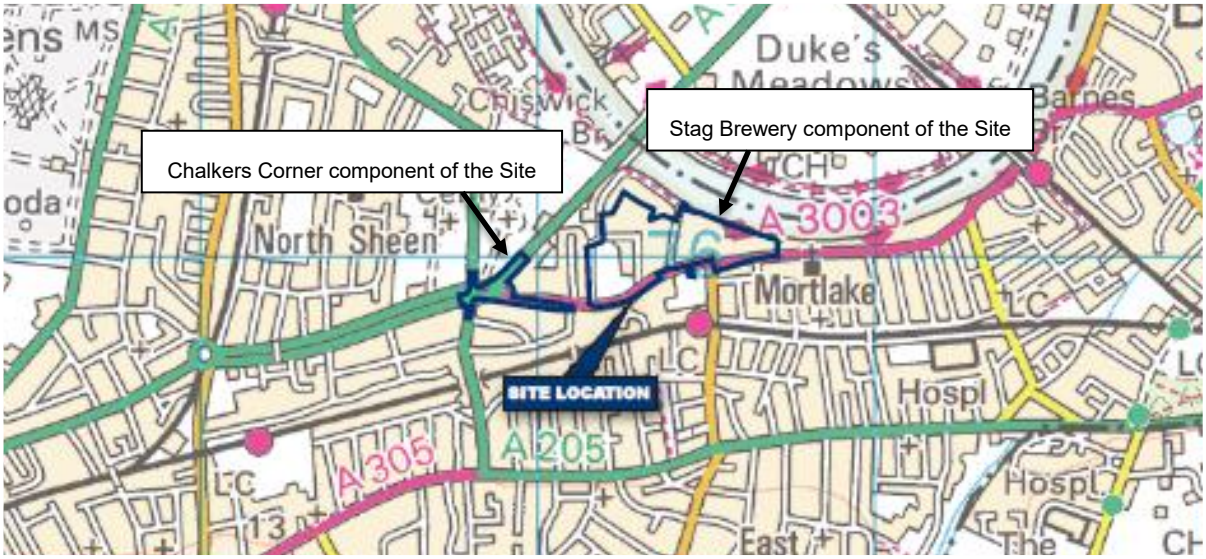
The Development is considered as EIA Development under Schedule 2, Category 10(b) (urban development projects) of the Town and Country Planning (Environmental Impact Assessment) Regulations, 2011 (as amended 2015)[1].

The ES reports the key findings of the EIA process undertaken for the Development and accompanies all three Planning Applications (as described below). At the request of the LBRuT, standalone reports have been provided, but do not differ from those contained within the ES. Justification as to the scope of the ES is summarised in ES Chapter 2: EIA Methodology. Further information on the description of the existing Site and surrounds, the proposed Development, the Works, alternatives and design evolution, and cumulative effects are provided in the ES.

1.2 Site Context and Development Proposals

The location of the Site is shown in Figure 1 below and comprises two components referred to as the 'Stag Brewery component of the Site' and the 'Chalkers Corner component of the Site'.

Figure 1: Site Location



The Stag Brewery component of the Site is bounded by Lower Richmond Road to the south, the river Thames and the Thames Bank to the north, Williams Lane to the east and Bulls Alley (off Mortlake High

[1] HMSO (2015) Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (as amended 2015).

Street) to the west. The Stag Brewery component of the Site is bisected by Ship Lane. The Stag Brewery component of the Site currently comprises a mixture of large scale industrial brewing structures, large areas of hardstanding and playing fields. The Chalkers Corner component of the Site comprises highway and associated landscaping referred to as Chalkers Corner junction which includes the junction with the A316 (Clifford Avenue, A3003 (Lower Richmond Road) and A205 (South Circular). Refer to ES Chapter 3: Existing Site and land uses for further information.

The redevelopment will provide homes (including affordable homes), accommodation for an older population, complementary commercial uses, community facilities, a new secondary school alongside new open and green spaces throughout. Associated highway improvements are also proposed, which include works at Chalkers Corner junction. The proposed floorspace of the Development (made up of the three planning applications) is provided in Table 1 below. Refer to ES Chapter 5: The Proposed Development for further information on the Development. The Works would be carried out over a period of approximately 8 years, anticipated to commence in June 2019 and complete in September 2027 (as set out in ES Chapter 6: Development Programme, Demolition, Alteration, Refurbishment and Construction).

Table 1: Proposed Floorspace of the Development

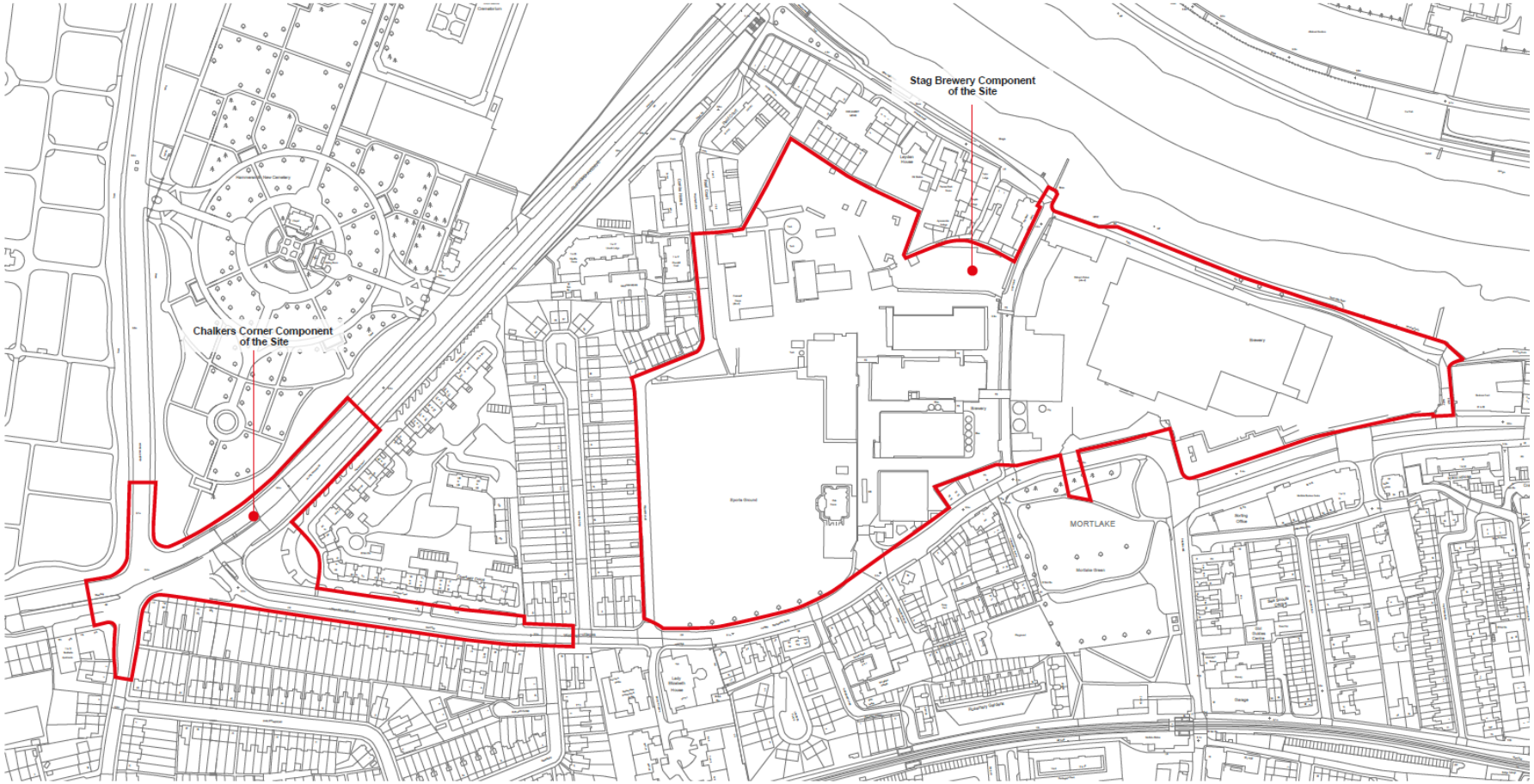
Land Use and Class	Floorspace Area (m^2)	
	Gross External Area (GEA)	Gross Internal Area (GIA)
Residential (Use Class C3, excluding assisted living)	Up to 84,639 (Up to 667 units)	Up to 75,119 (Up to 667 units)
Office (Use Class B1) (including Site management office)	2,674	2,457
Cinema (Use Class D2)	2,565	2,120
Gym (Use Class D2)	912	740
Flexible Uses - Restaurant / bar / retail / community / boathouse (Use Classes A1 / A2 / A3 / A4 / B1 / D1 / Boathouse)	5,308*	4,664*
Hotel (Use Class C1)	1,858	1,668
Assisted Living (Flexible Use Class C2 / C3)	Up to 16,246	Up to 14,738
Nursing and Care Home (Use Class C2)	Up to 10,293	Up to 9,472
School (Use Class D1)	11,430	9,319
Plant and storage.	Up to 4,536 (+ Plant and storage included in school)	Up to 4,244 (+ 249 included in school)
Car parking spaces.	Up to 708 spaces	Up to 708 spaces
Cycle parking spaces.	Up to 1,611 spaces	Up to 1,611 spaces
Basement residential access / circulation	1,868	1,810
Private amenity space.	Up to 5,912	Not applicable
Public amenity space (including external and internal play space for residents and school play space).	Up to 38,943	Not applicable
Play space (including external and internal play space for residents and school play space).	Up to 14,353	Not applicable

The three planning applications are as follows:

- Application A – hybrid planning application for comprehensive mixed use redevelopment of the Stag Brewery component of the Site consisting of:
  - Land to the east of Ship Lane applied for in detail (referred to as 'Development Area 1' throughout); and
  - Land to the west of Ship Lane (excluding the school) applied for in outline detail (referred to as 'Development Area 2' throughout).
- Application B – detailed planning application for the school (on land to the west of Ship Lane within the Stag Brewery component of the Site).
- Application C – detailed planning application for highways and landscape works at Chalkers Corner.

The three Planning Applications are separate applications, but will be linked through a S106 agreement to ensure that the Application B (school) land is handed over at an appropriate time and that the Application C (Chalkers Corner) works are carried out at an appropriate stage in conjunction with either Application A or B. For the purposes of assessment, all three Planning applications are therefore considered together as one comprehensive redevelopment proposal. As such, for the purposes of the EIA and ES, the proposals defined by the Planning Applications are collectively referred to as the 'Development'. Similarly, the collective parcels of land associated with the Planning Applications are referred to as the 'Site', as shown on Figure 2.

Figure 2: The Site for the Purposes of the EIA



2. Assessment

11. Ground Conditions and Contamination

Introduction

11.1. This Chapter, prepared by Waterman Infrastructure and Environment Ltd (Waterman IE) presents an assessment of the likely significant effects of the Development with respect to ground conditions and contamination. Particular consideration is given to the likely significant effects of any existing ground contamination on human health, controlled waters and other aspects of the environment.

11.2. This Chapter provides a description of the relevant baseline conditions of the Site and surrounding area, and an assessment of the likely significant effects of the Development during the demolition, alteration, refurbishment and construction works (the Works) and once the Development is completed and operational. Mitigation measures are identified, where appropriate to avoid, reduce or offset any likely adverse effects identified and / or enhance likely beneficial effects. Taking account of the mitigation measures, the nature and significance of the residual effects are described.

11.3. This Chapter is supported by a Preliminary Environmental Risk Assessment (PERA) prepared by Waterman IE in August 2016, and ground investigation report prepared by Waterman IE for the eastern part of the Stag Brewery component of the Site in November 2016. Such work is presented within **Appendix 11.1** and **Appendix 11.2** respectively.

Assessment Methodology and Significance Criteria

Assessment Methodology

Preliminary Environmental Risk Assessment

11.4. As noted above, a desk-based qualitative PERA of the Stag Brewery component of the Site was completed by Waterman IE in August 2016. This report was undertaken to establish the potential for significant ground contamination to exist and the likely risk posed to a range of sensitive receptors, including human health, property, controlled waters and flora.

11.5. Whilst the PERA focusses on the Stag Brewery component of the Site (and not the Chalkers Corner component of the Site), this is due to the fact that the highway works associated with Chalkers Corner relate to highway improvements and landscaping (refer to **Chapter 5: The Proposed Development**). Such works are not highly intrusive and would unlikely lead to any significant (if any) below ground works so that any pollution source-pathway-receptor linkages would be unlikely. Such works would also be implemented and designed according to best-practice and legislative requirements, so that significant contamination could not result (i.e. appropriate pollution prevention controls would be employed during the implementation of the works and as part of the inherent highway drainage design). In addition, the future end use of the Chalkers Corner component of the Site would be of low sensitivity. That is, vehicular drivers or other transient users who would not come into direct contact with the ground. Accordingly, and based on professional and expert judgement, the proposals at the Chalkers Corner component of the Site are unlikely to give rise to any significant ground conditions or contamination effects. The geographical coverage of the PERA is therefore considered to be appropriate and robust for the purposes of the assessment. Nonetheless, the assessment of likely significant effects, mitigation and likely residual effects reported in this Chapter do take consideration of the entire Site.

11.6. The PERA was undertaken in general accordance with the Model Procedure for Management of Land Contamination (Contaminated Land Report 11)[1] and was informed by:

- a Landmark Information Group Envirocheck Report for the Stag Brewery Component of the Site[2] which contains historical Ordnance Survey (OS) extracts, environmental data sheets and sensitivity plans;
- previous environmental assessments and reports prepared for the Stag Brewery Component of the Site:
  - Stag Brewery: Phase 1 Environmental Site Assessment, Aecom, July 2015;
  - Stag Brewery: Phase 2 Environmental Site Assessment Report, Aecom, September 2015; and
  - Stag Brewery, Mortlake: Groundwater Sampling Point decommissioning Report, Aecom, February 2016.
- tank decommissioning certificates for works by Bale Group between December 2015 to January 2016;
- a walkover and inspection of the Stag Brewery component of the Site undertaken by Waterman IE on Thursday 14 July 2016;
- a review of publicly available and relevant historical, geological and hydrogeological information sources;
- British Geological Survey (BGS) 1:50,000 Map Sheet 270 (South London, Solid and Drift Edition), BGS borehole records TQ27/NW-596 and TQ27/NW-597, and the BGS website;
- review of World War II ordnance impact mapping[3]; and
- information obtained from the London Borough of Richmond upon Thames (LBRuT) Environmental Health Officer (EHO) relating to potential historical sources of contamination at the Stag Brewery component of the Site.

11.7. The PERA includes a Conceptual Site Model (CSM) which identifies the likely significant potential pollutant linkages. Consideration is given in the CSM to the potential contamination sources, migration pathways and sensitive receptors. The likely effects of ground contamination upon human health, property, controlled waters and flora were assessed as part of the PERA using this source-pathway-receptor approach.

11.8. The findings of the PERA have been used to inform the qualitative assessment presented in this Chapter of likely effects to, and from, any potential ground contamination likely to exist at the Stag Brewery component of the Site. In accordance with guidance, the CSM of the likely significant pollutant linkages within the PERA were updated in this Chapter where necessary, to reflect the Works and the Development. Using information obtained from the above sources, an appraisal of the means by which sources might affect receptors (the pathways) was carried out.

Ground Investigation Report

11.9. Ship Lane runs from north to south, bisecting the Stag Brewery component of the Site into a western area (Development Area 2 and the School) and an eastern area (Development Area 1). The Applicant commissioned a preliminary ground investigation of the eastern part of the Stag Brewery component of the Site, as this was where there is the greatest potential for contamination to be present.

11.10. The investigation targeted potential contamination sources and pathways identified by the PERA, and involved drilling 10 window sample holes to depths between 0.5 m bgl (below ground level) and 5.5 m bgl, and two cable percussion boreholes to 30 m bgl. Soil samples were collected from all shallow strata encountered. Monitoring wells were installed for follow-up groundwater sampling, and ground gas / vapour monitoring. A single round of groundwater sampling and ground gas / vapour monitoring was completed.

11.11. Soil and groundwater samples collected were analysed for a range of inorganic and hydrocarbon contaminants including metals, total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAHs) volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs).

11.12. The ground investigation results were compared to Waterman IE Generic Assessment Criteria (GACs) for land with a residential end-use without plant uptake, and 1% soil organic matter. Results from the Aecom 2015 Ground Investigation within the eastern part of the Stag Brewery component of the Site were also considered within the Ground Investigation Report. The findings informed an assessment of the potential for all receptors to be affected by ground conditions at the Stag Brewery component of the Site. In turn, the CSM developed in the PERA was updated with the new assessment findings.

11.13. In respect of the assessment of the outline component of the Development, the assessment set out within this Chapter has considered the maximum allowable spatial parameters sought for approval. This would give rise to the most intrusive ground works and so can be considered to reflect a 'worst-case' assessment. That said, based on professional and expert judgement, it is unlikely that the minimum allowable spatial parameters sought for approval would give rise to materially different ground contamination effects. This is because the scale of Works that would be required for both the maximum and minimum allowable parameters would be similar and the sensitive receptors likely to be affected by ground contamination would be the same.

Significance Criteria

11.14. There are no published criteria for assessing the significance of effects from ground conditions and contamination. Significance criteria have therefore been developed using the criteria outlined in **Chapter 2: EIA Methodology**, contaminated land guidance, and professional expert judgement.

11.15. An adverse effect in respect of ground contamination relies on the presence of a source, pathway and receptor pollutant linkage. The significance of the effect depends on the value of the resource, the sensitivity of the receptor and the ways in which the Works and the Development can provide a pathway to the receptor. The significance of an effect partly depends on the timescales involved, i.e. short, medium or long term and the extent of the area affected.

11.16. The assessment of the likely significant effects and residual effects used in this assessment are set out in **Table 11.1**.

Table 11.1: Significance Criteria for Ground Conditions and Contamination Assessment

Significance Criteria	Description
Adverse effect of major significance	High risk site classification and acute or severe chronic effects to human health and / or animal / plant populations predicted. Effect to a potable groundwater or surface water resource of regional importance e.g. Principal aquifer, public water reservoir or inner Source Protection Zone (SPZ) of a public supply borehole.
Adverse effect of moderate significance	Medium risk site classification and proven pollutant linkages with human health and / or animal / plant populations, with harm from long-term exposure. Effect to a potable groundwater or surface water resource at a local level e.g. effect to an outer groundwater SPZ or Principal aquifer, which is not abstracted locally. Temporary alteration to the regional hydrological or hydrogeological regime or permanent alteration to the local regime.
Adverse effect of minor significance	Low risk site classification and potential pollutant linkages with human health and / or animal / plant populations identified. Reversible, localised reduction in the quality of groundwater or surface water resources used for commercial or industrial abstractions, Secondary A Aquifer.
Insignificant	Low risk site classification and no appreciable effects to human, animal or plant health, potable groundwater or surface water resources.
Beneficial effect of minor significance	Risks to human, animal or plant health are reduced to acceptable levels. Minor local scale improvement to the quality of groundwater or surface water resources used for commercial or industrial abstraction.
Beneficial effect of moderate significance	Risks to human, animal or plant health are reduced to acceptable levels. Moderate local improvement to the quality of potable groundwater or surface water resources. Significant improvement to the quality of groundwater or surface water resources used for public water supply.
Beneficial effect of major significance	Major reduction in risks to human, animal or plant health. Regional scale improvement to the quality of potable groundwater or surface water resources.

11.17. **Chapter 2: EIA Methodology** also sets out the general approach to temporal and geographical extent of effects, reproduced below.

- ‘short’ to ‘medium-term’ effects are considered to be those associated with the Site preparation and construction works;
- ‘long-term’ effects are those associated with the completed and operational Development;
- ‘local’ effects are those affecting neighbouring receptors;
- ‘district’ effects are those which are likely to occur to receptors within the wider Borough of the London Borough of Richmond upon Thames (LBRuT);
- ‘sub-regional’ effects are those affecting Boroughs adjacent to LBRuT;
- ‘regional’ effects are those affecting receptors across Greater London; and
- ‘national’ effects are those that affecting receptors within the UK.

Baseline Conditions

Historical Land Uses on-Site and in the Surrounding Area

11.18. A review of historical maps indicates the eastern part of the Stag Brewery component of the Site was in brewery use since the 15th Century. The brewery expanded to occupy the majority of the eastern part of the Stag Brewery component of the Site by 1868. Circa 1933, further brewery structures were constructed within the western part of the Stag Brewery component of the Site, and in 1961 these buildings were reshaped to the current layout. The Stag Brewery occupied the entire Stag Brewery Component of the Site with exception of the playing fields by 1974. The Stag Brewery ceased operations in late 2015 and decommissioning of brewery infrastructure was undertaken following cessation of brewery activities. Most recently, works on-Site have been undertaken in respect of removal of brewery fixtures and fittings.

11.19. Historical contamination sources at the Stag Brewery component of the Site include an engine room, pump room, paint shop, garages, silos and large storage tanks. Historically, the area surrounding the Stag Brewery Component of the Site has primarily been residential. However, some industrial uses including a coal wharf, smithy, works and garages, incinerator and electrical substations have also been noted.

Existing Land Uses on Site and in the Surrounding Area

11.20. The Stag Brewery component of the Site comprises land predominately occupied by the former Stag Brewery. The former Stag Brewery includes 16 industrial buildings surrounded largely by hardstanding. Numerous electrical substations and tanks are located throughout the Stag Brewery component of the Site. All tanks with potentially contaminative contents such as oil, diesel, caustic soda, hydrochloric acid or effluent have been decommissioned and certified clean and gas-free.

11.21. Watney's Sports Ground playing fields are located within the south west of the Stag Brewery component of the Site.

11.22. The River Thames and River Thames towpath are located immediately to the north of the Stag Brewery component of the Site. Residential properties are also located immediately to the north, west and east of the Site. The predominant land uses to the south of the Site are retail and residential.

11.23. The Chalkers Corner component of the Site comprises highway and associated landscaping, which includes the junction with the A316 (Clifford Avenue), A3003 (Lower Richmond Road) and A205 (South Circular). The Chalkers Corner component of the Site also includes a small informal car park and landscaping on the south west corner of Lower Richmond Road. The Chalkers component of the Site is surrounded by residential uses with Fulham (North Sheen) Cemetery located immediately to the north.

11.24. Further information relating to the existing land uses on and off the Site are provided in **Chapter 3: Existing Land Uses and Activities**.

11.25. The Landmark Group Information Envirocheck report (refer to **Appendix 11.1**) identified the following potentially contaminative uses within 1 km, of the Stag Brewery component of the Site (refer to **Table 11.2**).

Table 11.2: Potentially Contaminative Land Uses within 1km of the Stag Brewery Component of the Site.

Location	Summary Description
To the north of the Stag Brewery component of the Site.	• Four historical landfills, the closest is 127 m north west, named Dukes Meadow and accepted waste between 1945 and 1950. The other three landfills are between 233 m and 419 m north, and where recorded accepted inert and industrial waste. These landfills closed between 1934 and 1935. • One active Environmental Permit for a waste management facility, 519 m north west and managing household, commercial and industrial waste. This site is also a Registered Waste Transfer Site. • Single Part B Environmental Permit, 237 m north west and registered to a crematorium. • Four active Contemporary Trade Directory Entries, the closest 241 m north west and registered to a crematorium. Further entries are for a cleaning service, laboratory and a road hauliers.
To the east of the Stag Brewery component of the Site.	• Warehouses, residences. • Two Part B Environmental Permits, closest 74 m east and registered to a dry cleaner. The further entry 852 m west is also for a dry cleaners. • 10 active Contemporary Trade Directory Entries, the closest an optical goods manufacturer 42 m east. Further entries are for a range of industrial and commercial activities including garages, vehicle parts makers, car dealers, laundries, and glass pane makers.
To the south of the Stag Brewery component of the Site.	• Mortlake High Street, commercial premises and residences. • Five Part B Environmental Permits, the closest 246 m south and registered to a petrol filling station. Further entries are for a further petrol filling station and three dry cleaners. • 29 active Contemporary Trade Directory Entries, the closest a builders merchant 163 m south east. Further entries are for industrial and commercial activities including car dealers, garages, printers, petrol filling station and dry cleaners.
To the west of the Stag Brewery component of the Site.	• Williams Lane, residences. • Single Part B Environmental Permits, 810 m west and registered to a petrol filling station. • Seven active Contemporary Trade Directory Entries, the closest a car dealership 378 m west. Further entries are for a second car dealers, two petrol station, lampshade makers, distribution centre, and clothing maker.

Geology

11.26. The Site's geology summarised in **Table 11.3**, was established from previous ground investigations by Dames and Moore (1995), CRA (2003) and Aecom (September 2015), BGS records and the findings of the Waterman IE Ground Investigation undertaken in the eastern part of the Stag Brewery component of the Site. Further details of the geology are described in **Appendix 11.1**.

Table 11.3: Geological Sequence Beneath the Stag Brewery component of the Site

Stratum	Area Covered	Estimated Thickness (m)	Typical Description
Hardstanding.	Entire Stag Brewery component of the Site (excluding the playing fields).	0.25 - 0.8	Tarmac or reinforced concrete floor slab at surface level. Encountered as two or three separate layers up to 0.5 m thick, each separated by up to 0.5 m Made Ground in eastern area.
Made Ground.	Entire Stag Brewery component of the Site.	0.4 - 2.7	Predominantly coarse sand and gravel, including pieces of brick and minor amounts of black clinker. Rare pipe fragments.
Alluvium.	Entire Stag Brewery component of the Site.	0.3 - 1.5	Soft brown grey slightly gravelly clay. Gravel is fine to coarse flint.
Kempton Park Gravel Formation.	Entire Stag Brewery component of the Site.	1.4 - 3.9	Clayey, silty sand with varying gravel content with areas of soft, brown, sandy clay. Gravel is sub-angular to rounded, fine to coarse flint.
London Clay Formation.	Entire Stag Brewery component of the Site.	73	Stiff grey to brown clay, with occasional pockets of silt and sand.
Lambeth Group.	Entire Stag Brewery component of the Site.	15 - 20	Clay, some silty or sandy, with sands and gravels.
Thanet Formation.	Entire Stag Brewery component of the Site.	5 - 10	Fine grained sand that can be clayey and glauconitic. Flints at the base of the formation.
Chalk Group.	Entire Stag Brewery component of the Site.	Not proven.	Chalk and flints.

Hydrogeology

11.27. The Environment Agency's (EA) Aquifer Designation Map[4] indicates that the Alluvium and Kempton Park Gravel Formation underlying the Stag Brewery component of the Site are classified as a Secondary A Aquifer. These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. Based on available information, it is anticipated shallow groundwater in the Alluvium and Kempton Park Gravel Formation is in hydraulic continuity with the River Thames directly adjacent to the Stag Brewery component of the Site. Previous ground investigation infers that groundwater flows in a westerly direction across the Site.

11.28. The London Clay Formation is an Unproductive Stratum. The Lambeth Group and Thanet Formation are both also classed as Secondary A Aquifers, with the Chalk Formation at depth a Principal Aquifer. According to the EA, the Site is not located within a groundwater SPZ.

11.29. There are two recorded historical groundwater abstractions within the Stag Brewery component of the Site boundary, references TQ27/NW-596 and TQ27/NW-597. These wells were drilled circa 1830, extended to 101 m bgl and 121 m bgl and drew groundwater from the Chalk Group Principal Aquifer. Details of abstraction volumes were not recorded.

11.30. Two groundwater abstractions are recorded within a 1 km radius of the Stag Brewery component of the Site. The closest of these is located 228 m north at Dukes Meadow Golf Club, drawing 8,000 litres (l) per year from the Principal Aquifer in the Chalk Group for irrigation of the playing green. The other abstraction is located 663 m north east, also for irrigation purposes at Dukes Meadow Golf Club and drawing a further 5,000l per year.

11.31. There are no Environmental Permits for discharges to groundwater recorded within 1 km of the Stag Brewery component of the Site.

Hydrology

11.32. The nearest surface water to the Stag Brewery component of the Site is the River Thames, located directly to the north of the eastern part of the Stag Brewery component of the Site.

11.33. There are no surface water abstractions within 1 km of the Stag Brewery component of the Site. The closest is 1.3 km north east, drawing water from the River Thames to supply a lake / pond.

11.34. There are five recorded active Environmental Permits for discharges to surface waters within a 1 km radius of the Stag Brewery component of the Site. The closest is located 763 m north west, operated by Thames Water for discharge of public sewage overflow to the River Thames. The other four are also for sewage overflows. Sewer records on the Stag Brewery component of the Site indicate that some areas currently drain to the Thames Water surface water sewer network, ultimately discharging to the River Thames. Further details are set out within **Chapter 12: Surface Water Resources and Flood Risk**.

11.35. The EA records a single pollution incident to surface water from the Stag Brewery component of the Site, involving a spill of unknown chemicals. The spill was recorded as a Category 3 (minor incident). A further two Category 2 (significant incident) spills are recorded at Ship Lane, involving miscellaneous chemicals and unknown chemicals. Environmental Incident Reports for the Stag Brewery component of the Site by Aecom[5]) identified 15 spill incidents during operation between 2009 and 2015. These included spills to drainage of brewing substances (wort, beer, grain, yeast and sugar) and mechanical fluids (lubricant, hydraulic oil, oxafoam, diesel and unidentified substances).

11.36. Six pollution incidents to surface waters were recorded within 1 km of the Stag Brewery component of the Site. The closest of these occurred 475 m north west, involved a miscellaneous spill of oils to the River Thames and was a Category 2 (significant incident). The further pollution incidents involved oils, sewage and miscellaneous chemicals, with three classed as Category 3 and two classed as Category 2.

Unexploded Ordnance

11.37. There is a risk that unexploded bombs, anti-aircraft projectiles and / or incendiary bombs fell unnoticed and unrecorded within the Site. The Preliminary Unexploded Ordnance Risk Assessment[6] produced by Groundsure (refer to **Appendix 11.1**) identifies an overall medium risk classification for the Site. Historical records indicate that during WWII LBRuT sustained a high density of bombing and bomb risk maps have identified several high explosive bombs as having fallen on parts of the Stag Brewery component of the Site.

Potential Contamination Sources

11.38. The PERA (refer to **Appendix 11.1**) has identified historical land uses that could result in potential ground contamination within the Stag Brewery component of the Site, including the former Stag

Brewery itself, and nearby off-Site features such as landfills, a smithy, a coal depot and electrical substations. Based upon an appraisal of historical and current land uses, contaminants of concern are identified in **Table 11.4**.

Table 11.4: Contaminants of Concern

Contamination Source	Associated Contaminants
Within the Stag Brewery Component of the Site (Existing)	
Electrical substations.	Metals, PCBs.
Within the Stag Brewery Component of the Site (Historic)	
The Stag Brewery.	Diesel, waste oil, lubricant oils, hydrochloric acid, caustic soda, slurry, asbestos.
Outside the Stag Brewery Component of the Site (Existing)	
Garages and petrol filling stations.	Metals and metalloids, fuels, TPH, PAH, organic solvents, asbestos.
Outside the Stag Brewery Component of the Site (Historic)	
Landfill.	Clinker, brick, slate, pottery, mortar, wood, chert, concrete, metal, glass, flint, asbestos, ground gas and vapours.
Incinerator.	Ash and clinker, metals and metalloids, glass, flint, asbestos.
Smithy.	Metals and metalloids, organic solvents, asbestos.
Coal depot.	Metals and metalloids, sulphates, sulphides, cyanides.
Electricity works and electrical substations.	Metals and metalloids, PCBs, bitumen, detergents, organic solvents, TPH, mineral oil, asbestos.

11.39. Ground investigation by Aecom in 2015 and Waterman IE in 2016 identified the following elevated contaminants in the soil:

- petroleum hydrocarbons;
- arsenic; and
- asbestos.

11.40. Elevated contaminants in the groundwater included:

- chromium;
- copper;
- iron;
- vanadium;
- nickel;
- zinc; and
- sulphate.

11.41. Whilst elevated contaminants were recorded in the soil and groundwater they were not elevated across the eastern part of the Stag Brewery Component of the Site. As such, the result summarised above represent contamination hotspots. The Development would include substantial excavations to create the single level basement, and suitable for use material in areas of proposed soft landscaping. The Works would therefore inherently break the pollutant linkages

from contamination in the soil to future Site users. As such, the contaminants recorded do not represent a significant contamination risk to either residential or commercial future Site users.

11.42. In the absence of mitigation, materials brought onto the Site to facilitate the Development, including construction materials, fuels and oils could present a potential source of contamination during the Works. Furthermore, in the absence of mitigation measures stockpiled soils excavated for the proposed groundworks required to facilitate the Development have the potential to act as a source of windborne dust.

Potential Contamination Pathways

11.43. During the Works, in absence of mitigation, the potential pollutant linkages would be as follows:

- construction workers, visitors and off-site residents contacting contaminated soils and groundwater via dermal contact, ingestion, runoff from stockpiled soils and dust inhalation;
- remobilisation of contamination in soils by rainfall infiltration following removal of hardstanding the Works, with leaching to lower soils and the shallow Secondary A aquifer in the Alluvium and Kempton Park Gravel Formation;
- potential contamination of shallow groundwater and the River Thames from the release of existing contamination (for example, via surface run-off from stockpiled materials, via the drainage system discharging to the River Thames, or mobilisation of ground contamination by rainfall infiltration after removal of hardstanding during demolition), and introduction of new sources of contamination; and
- potential to encounter UXO.

11.44. Once the Development is completed and operational, in the absence of mitigation, the potential pollutant linkages would be as follows:

- structures contacting ground contamination via direct contact and chemical attack, and potential for ground gas and vapour ingress from Made Ground, Alluvium and hydrocarbon contamination within shallow groundwater;
- soft landscaping contacting contamination in Made Ground, shallow soils, and shallow groundwater via direct contact of roots;
- potential exposure of future residents and visitors of the Site to residual ground contamination via soft landscaping, and plant uptake in soft landscaped area;
- potential mobilisation of contamination via historical abstraction wells to the deep Secondary A aquifers in the Lambeth Group and Thanet Formation, and Principal Aquifer in the Chalk Group; and
- flora and fauna associated with the River Thames coming into direct contact with contamination originating from the Made Ground, and spills of construction materials.

Potential Contamination Receptors

11.45. During the Works, potential receptors in the absence of mitigation include;

- construction workers and visitors;
- off-site residents;
- occupants of completed Development phases, including staff and students of the new school;
- fauna and flora associated with the River Thames

- secondary A Aquifer in the Alluvium and Kempton Park Gravel Formation; and
- the River Thames.

11.46. In the absence of any mitigation, potential receptors of the completed and operational Development include;

- future Site residents, workers and occupiers (i.e. commercial occupiers and nursing staff), school students and staff and visitors;
- vegetation in soft landscaping;
- fauna and flora associated with the River Thames
- Secondary A Aquifer in the Lambeth Group, and Thanet Formation;
- Principal Aquifer in the Chalk Group; and
- the River Thames.

Likely Significant Effects

The Works

Effects to Human Health from Ground Contamination, Ground Gas, and Vapour

11.47. During the Works, workers on the Site would be more likely to be exposed to sources of contamination, as the areas comprising the Works would not be accessible to the public.

11.48. The Works, which would include the demolition of buildings, removal of hard standing, excavation of soils, basement excavation and piling could expose Site works to sources of contamination via plausible pollutant linkages including dermal contact, inhalation and / or ingestion. However, workers on the Site would be subject to mandatory health and safety requirements under the Construction (Design and Management) Regulations 2015[7], and the Control of Substances Hazardous to Health (COSHH) Regulations 2002[8]. In addition, workers, and Site visitors would be required to use Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE) as required, thereby minimising the risk of exposure to potential contamination from soils, dust, ground gas and other potential contamination sources.

11.49. Adherence to the legislative requirements described above would significantly reduce the risk to the demolition and construction workers such that the likely effect is considered to be **insignificant**.

11.50. Dust may be generated by the Works, particularly during dry and windy weather. Under these conditions, the public in areas adjacent to the Site and residents occupying the earlier phases of the Development could be temporarily exposed to contamination via the inhalation of potentially contaminated dust. Members of the public and occupants of the early phases of the Development would not be wearing PPE of RPE. As such, the likely significant effect to the public and early occupants of the Development is considered to be **short** to **medium-term**, **local**, **adverse** and of **minor significance**.

Effects to Controlled Waters from Ground Contamination

11.51. With reference to **Chapter 5: The Proposed Development** and **Chapter 6: Development Programme, Demolition, Alteration, Refurbishment and Construction**, the bottom of the proposed basement slab within the east part of the Stag Brewery component of the Site (east of Ship Lane) would be set at 0.76m OD. The maximum extent of the proposed basement within the

west part of the Stag Brewery component of the Site (west of Ship Lane), would be set at 2.45m OD.

11.52. The proposed foundation design for all buildings within the detailed element of the Stag Brewery component of the Site would comprise a 1m deep piled raft, with the exception of the proposed cinema area which would be founded in 1m deep local pile caps with 1m deep ground beams. Below the foundations, all buildings would have an expanse of piles (3 to 5 per column) that would be 600mm in diameter and extending down 25m in length.

11.53. The piles would be formed using Continuous Flight Augur (CFA) cast in-situ methodologies. This is a non-displacement method, with material being brought to the surface. Contaminants in the Made Ground would therefore not be driven down into the Secondary A Aquifer in the Kempton Park Gravel Member. Furthermore, given the thickness of the London Clay Formation (73 m thick), the pile toes would not penetrate the base and therefore a preferential pathway for contaminants in the Made Ground to migrate to and affect the underlying sensitive aquifers would not be created. As such, the intrusive ground work associated with the works are likely to give rise to **insignificant** contamination effects to the Secondary A Aquifer beneath the Site.

11.54. In addition to the above, the new river wall would be formed within the north of the Stag Brewery component of the Site. This would comprise a sheet pile wall with an in-situ reinforced concrete capping beam. The toe level of the sheet pile wall would be set at -1m Above Ordnance Datum (AOD). Such intrusive works may mobilise contamination in the Made Ground, and create a pollutant pathway for contaminants to migrate to and impact the River Thames. Given the river wall piling works would be undertaken immediately next to the River Thames, there is no potential for contaminants to attenuate, disperse, or dilute within the groundwater. The risk to the River Thames is therefore increased for the piling river wall works, in comparison to activities undertaken within the wider Site. In the absence of mitigation measures the likely effect on the River Thames would be **temporary**, **short** to **medium-term**, **local**, **adverse** and of **moderate significance**.

11.55. During the Works, areas of existing hardstanding would be broken out. Such works would temporarily increase the permeable cover allowing increased rainwater and surface water infiltration to the ground and potentially to the underlying aquifer. Given that the shallow groundwater is in hydraulic continuity with the River Thames, there is a potential for ground contamination mobilised by rainwater to reach this water course. In the absence of mitigation, the likely effect to the River Thames is considered to be **temporary**, **short** to **medium-term**, **local**, **adverse** and of **minor significance**.

11.56. Two historical abstractions wells are recorded on the Stag Brewery component of the Site. The wells abstract from the Principal Aquifer in the Chalk Group. The exact location and status of these wells is not known. However, taking a precautionary and ‘worst-case’ approach, if these wells are still present and active, a preferential pathway may be present allowing ground contamination mobilised by rainwater to reach the Principal Aquifer. The likely effects, in the absence of mitigation, would be **temporary**, **short** to **medium-term**, **local, adverse** and of **moderate significance**.

11.57. During the Works, it is likely that new sources of contamination would be introduced and stored on the Site (for example, diesel fuel, oils, chemicals and other construction materials). As a result, there would be a risk of leaks and spills to occur directly or indirectly to the ground (Secondary A aquifer in the Kempton Park Gravel Formation) and the River Thames. Potential pathways include surface water drains, preferential pathways created by existing wells, surface water run-off, and migration within the groundwater.

11.58. Despite the above, the Works would be undertaken in accordance with the Control of Substances Hazardous to Human Health (COSHH) Regulations 2002[8], and in-line with best practice methods. This would act to reduce the potential for contamination leaks or spills. As such, the likely effect is considered to be **temporary**, **short** to **medium-term**, **local, adverse** and of **minor significance**.

Effects to Ecological Receptors from Ground Contamination

11.59. Similar to the likely effects to human health, ecological receptors adjacent to the Site and associated with the River Thames may temporarily expose to contamination via the inhalation or ingestion of potentially contaminated dust. This effect would likely give rise to **temporary**, **short** to **medium-term**, **local**, **adverse effects** of **minor significance**.

11.60. As previously noted, the physical Works would temporarily increase the permeable cover allowing increased rainwater and surface water infiltration to the ground and potentially to the underlying aquifer. Given that the shallow groundwater is in hydraulic continuity with the River Thames, there is a potential for ground contamination mobilised by rainwater to reach the River Thames. In addition, new sources of contamination would be introduced and stored on the Site (for example, diesel fuel, oils, chemicals and other construction materials). As a result, there would be a risk of leaks and spills to occur directly or indirectly to the ground and the River Thames. Potential pathways include surface water drains, preferential pathways created by existing wells, surface water run-off, and migration within the groundwater.

11.61. Despite the above, the Works would be undertaken in accordance with the Control of Substances Hazardous to Human Health (COSHH) Regulations 2002, and in-line with best practice methods. This would act to reduce the potential for contamination leaks or spills. As such, the likely effect to ecological receptors surrounding the Site is considered to be **temporary**, **short** to **medium-term**, **local, adverse** and of **minor significance**.

Unexploded Ordnance

11.62. Bomb risk maps (refer to **Appendix 11.1**) have identified several high explosive bombs as having fallen on parts of the Stag Brewery component of the Site. In addition, a risk exists for un-noticed or unrecorded bombs to have fallen within the Site. There is therefore a risk of potential UXO underneath the Site to detonate during the Works if disturbed, with possible severe consequences.

11.63. in the absence of mitigation, any encountered UXO retains the potential to detonate if disturbed during the Works. The likely effect would be **long-term**, **local**, **adverse** and of **major significance**.

Completed Development

Effects to Human Health from Ground Contamination

11.64. As described within **Chapter 6: Development Programme, Demolition, Alteration, Refurbishment and Construction**, it is proposed that the Development would be implemented in phases, with each phase being occupied as it is completed.

11.65. The basement excavation would remove the majority, if not all, Made Ground within the Stag Brewery component of the Site, thereby substantially reducing the hotspots of contamination associated with the Stag Brewery component of the Site. However, any residual Made Ground beneath the Site could contain organic material that could represent a potential source of ground

gas. In such instances, in the absence of mitigation, and taking a precautionary 'worst-case' approach, the likely effect to human health would be **long-term**, **local**, **adverse** and of **moderate significance**.

11.66. The majority of soft-landscaped areas associated with the Development in the Stag Brewery Component of the Site would be constructed over the proposed basement and so would be removed from any residual ground contamination and require the use of clean, inert imported soil. In such areas, the effects to human health would be **insignificant**.

11.67. Where soft-landscaping is proposed outside the footprint of the proposed basement areas (for example, the private gardens associated with Buildings 20 and 21 within the north west of the Stag Brewery component of the Site), residents of the Development, together with visitors and users of these areas could come into contact with ground contamination via dermal contact with contaminated soils, and by plant update in private garden areas. Again, in the absence of mitigation, and taking a precautionary 'worst-case' approach, the likely effect to human health would be **long-term**, **local**, **adverse** and of **moderate significance**

Effects to Controlled Waters from Ground Contamination

11.68. Made Ground present in the footprint of the proposed basements would be removed from the Site, thereby removing a potential source of contamination. The Development would change the land use of the Stag Brewery component of the Site from a former industrial use to a primarily residential land use with the comparatively minimal storage of hazardous materials. The reduction in the storage of hazardous materials in the Development would reduce the relative risk of spillages or leakages of hazardous material occurring.

11.69. Any hazardous materials kept on the Site would be stored and maintained in accordance with relevant legislation, which aims to reduce contamination risks. Whilst accidental spillages cannot be ruled out, spill kits would be provided and the Development would be drained by hand standing which would prevent the majority of rainwater and surface water runoff infiltrating into the ground. Furthermore, the drainage system would be designed to incorporate drainage solutions such as interceptors, filters or silt traps to avoid the discharge or any fuels of oils. This would be particularly important for the three proposed drainage outfalls to the River Thames (refer to **Chapter 12: Water Resources and Flood Risk**). The incorporation of green roofs, and the potential inclusion of rainwater harvesting and permeable paving would further improve surface water quality before it is discharged. If required, a biomat filtration system, downstream defender or other hard engineered solution could also be incorporated to ensure discharge is appropriately treated. Such inherent design features of the Development would likely reduce the silt and oil deposition into the River Thames when compared to the existing situation.

11.70. In view of the above, the likely effect of the completed and operational Development upon controlled waters is likely to be **long-term**, **local**, **beneficial** and of **minor significance**.

Effects to Building Structures and Services from Ground Contamination

11.71. Below ground Development infrastructure would be inherently suitably designed and specified for the ground conditions at the Site and to withstand the potential adverse effects from any residual contamination which could give rise to chemical attack. The likely effect is therefore considered to be **insignificant**.

Effects to Ecological Receptors from Ground Contamination

11.72. As noted earlier in this Chapter, the majority of soft-landscaped areas associated with the Development in the Stag Brewery Component of the Site would be constructed over the proposed basement and so would be removed from any residual ground contamination and require the use of clean, inert imported soil. In such areas, the likely effects to ecological receptors on the Site would be **insignificant**. However, where soft-landscaping is proposed outside the footprint of the proposed basement areas ecological receptors could come into contact with ground contamination via dermal contact with contaminated soils, and by plant update in private garden areas. Again, in the absence of mitigation, and taking a precautionary 'worst-case' approach, the likely effect to ecological receptors on the Site would be **long-term**, **local**, **adverse** and of **minor significance**

11.73. In respect of any ecological receptors surrounding the Site, including those associated with the River Thames, the likely effect in respect of contamination would likely range from **insignificant** to **long-term**, **local**, **beneficial** and of **minor significance**. The latter would be representative of the likely reduction of silt and oil deposition into the River Thames.

Mitigation Measures and Likely Residual Effects

Intrusive Ground Investigation

11.74. Ground investigation was undertaken across the Stag Brewery component of the Site by Aecom in 2015, and within the eastern part of the Stag Brewery component of the Site by Waterman IE in 2016 (refer to **Appendix 11.2**). Further and more detailed ground investigations are currently being undertaken on the western area of the Stag Brewery component of the Site, which would also inform the Remediation Strategy.

11.75. As part of detailed design for the Development, geotechnical investigation would be required. In combination with the geotechnical ground investigation the following works would be undertaken in relation to the contaminated land risk:

- sampling of soils for contamination identified by previous ground investigations, and for preliminary waste classification purposes;
- installation of ground gas and vapour monitoring wells on the western part of the Stag Brewery component of the Site to screen the Made Ground, Alluvium and Kempton Park Gravel Formation;
- sampling and testing of shallow groundwater at the new wells for contamination identified by previous ground investigations, and to assess the risk of chemical attack to buried structures;
- six ground gas and vapour monitoring visits over a period of three months at the new wells, and also at the wells installed as part of the 2016 Waterman IE ground investigation (refer to **Appendix 11.2**) within the eastern part of the Stag Brewery component of the Site to confirm the ground gas and vapour regime; and
- preparation of a Generic Quantitative Risk Assessment (GQRA) report based on the results of the ground investigation to further assess the potential pollutant linkages identified in the PERA.

11.76. The findings of the GQRA would inform a Remediation Strategy, which would be agreed with the EA and LBRuT. The Remediation Strategy would outline the measures necessary to break

potential pollutant linkages at the Stag Brewery component of the Site. The purpose of the Remediation Strategy would be to ensure the Site would be 'suitable for the end use' (i.e. the completed and operational Development) and that no unacceptable contamination risk would remain. Remedial measures may include, but would not be limited to, the following:

- removal of contaminated material;
- treatment of soil prior to reuse or disposal;
- appropriate reuse of material beneath paved areas or cover systems;
- importation of clean soils for areas of soft landscaping;
- the use of ground gas / vapour membranes in basements; and
- appropriately designed buried concrete and service pipes.

11.77. Following the completion of any remedial works required, a Verification Report would be produced. This would detail the results of testing, audits, as-built plans and duty of care documents to demonstrate identified linkages have been broken.

11.78. If any unforeseen contamination is encountered during the Works, a strategy would be devised to ensure that any identified potential effects to receptors would be mitigated. This may include removal of the material from the Development or appropriate reuse of the material on the Development in such a way that the source-pathway-receptor linkage is broken.

The Works

Effects to Human Health from Ground Contamination, Ground Gas, and Vapour

11.79. The remediation of the Stag Brewery component of the Site (as necessary and informed by previous ground investigations and the proposed further ground investigation) would break all pathway linkages between any residual contamination and identified receptors not already broken by the presence of the Development. In addition, during the Works, precautions would be taken to minimise the exposure of Site workers and the public to potentially harmful substances.

11.80. Specific protection would be developed and implemented in accordance with a Construction Environmental Management Plan (CEMP) for the Development. As detailed within **Chapter 6: Development Programme, Demolition, Alteration, Refurbishment and Construction**, such protective measures would include:

- monitoring and preventive measures to control dust, which could include water spraying in dry weather, wheel washing facilities for vehicles leaving the Works;
- handling and storage of any potential hazardous liquids / materials not only in accordance with relevant legislation, but also in line with best practice including EA pollution prevention guidance;
- the use of appropriately tanked and bunded storage areas for fuels, oils and other chemicals;
- measures for preventing runoff from stockpiled soils reaching surface drainage, or the River Thames; and
- procedures for the management of construction materials, spillage response, use of best practice construction methods and monitoring.

11.81. Providing the above mitigation measures are implemented, the likely residual effect on human health during the Works for on-site workers, site visitors, occupants in the surrounding area, and occupants of the early phases of the Development would be **insignificant**.

Effects to Controlled Waters from Ground Contamination

11.82. The CEMP would include measures to minimise the potential risk to controlled waters during the Works. These would include:

- surface drainage would pass via settlement and oil interceptor facilities, within the proposed basements and where required, and discharge arrangements would be agreed with the EA and Thames Water;
- the provision of adequate drainage to manage surface water run-off and minimise contaminated water reaching the groundwater;
- stockpiling of contaminated materials would be avoided, wherever possible. Stockpiles would be located on areas of hardstanding or on plastic sheeting to prevent mobile contaminants infiltrating into the underlying ground and located away from the Thames and drains; and
- potentially hazardous liquids on the Site such as fuels and chemicals would be managed and stored in accordance with best practice guidance, such as that published by the EA. Storage tank and container facilities would be appropriately bunded with designated areas and located away from surface water drains. All drums and barrels would be fitted with flow control taps and would be properly labelled.

11.83. Post-demolition of the buildings on-Site, the work should be carried out to locate and decommission the historic abstraction wells in-line with best practices and EA guidance, to prevent them acting as preferential pathways to the Principal Aquifer in the Chalk Formation.

11.84. Following the implementation and adherence to the above measures, the contamination risk to the underlying aquifers and surface water features surrounding the Site would be mitigated, and thus the likely residual effect would be **insignificant**.

Effects to Ecological Receptors from Ground Contamination

11.85. During the Works, as noted earlier in this Chapter dust suppression methods would be implemented to minimise the dispersion of dust and associated contaminants during the Works. Furthermore, the measures summarised earlier in this Chapter to mitigate against the contamination of controlled waters would also serve to provide mitigation to ecological receptors associated with the River Thames.

11.86. Accounting for the above, the likely residual contamination effects of the Works to ecological receptors would be **insignificant**.

Unexploded Ordnance

11.87. Prior to commencement of the Works a detailed desk-based UXO assessment would be undertaken to identify and classify the actual on-Site risk posed by UXO. The desk-based UXO assessment would include recommendations for mitigation to be undertaken during the Works. Dependent on the Site's actual UXO classification, mitigation may include:

- safety and awareness training to all construction staff;
- UXO safety testing and appropriate clearance certification for each ground penetration; and / or

- UXO safety procedures where UXO is discovered.

11.88. Post implementation of the above, the likely residual effect from UXO would be **insignificant**.

Completed Development

Effects to Human Health from Ground Contamination

11.89. As previously highlighted, an appropriate Remediation Strategy would be formulated to ensure that the Site would be 'suitable for the end use' (i.e. the completed and operational Development) and that no unacceptable contamination risk would remain, particularly with respect to human health.

11.90. Gas monitoring would be undertaken and, depending on the results, gas and vapour protection measures would be implemented to mitigate any ground gas risks. Construction of the basement would remove Made Ground in such areas. The building design would include ventilation of the basement areas to provident the accumulation of car fumes and ground gas from adjacent residual sources. However, in areas where no basement is proposed, adequate ground gas protection measures would be implemented, as appropriate.

11.91. In all areas of soft landscaping, imported, clean and inert suitable for use soils would be utilised to break any pollutant linkages between residual contamination and vegetation.

11.92. In consideration of the above, all relevant contamination receptor linages would be broken as part of the Development or by mitigation measures. Furthermore, the operation of the Development would not give rise to any additional potential pollutant pathways to future occupants, users and visitors to the Site. Accordingly, the likely residual effect to such receptors would be **insignificant**.

Effects to Controlled Waters from Ground Contamination

11.93. As previously highlighted, an appropriate Remediation Strategy would be formulated to ensure that the Site would be 'suitable for the end use' (i.e. the completed and operational Development) and that no unacceptable contamination risk would remain to controlled waters.

11.94. In addition to the above, the assessment of likely significant effects identified that the completed and operational Development would likely give rise to long-term, local, beneficial effects of minor significance. This would be a result of the inherent design of the Development (including green roofs, interceptors and silt traps) which would reduce silt and oil deposition into the River Thames. The likely residual effect would therefore remain as the likely effect. That is, **long-term**, **local**, **beneficial** and of **minor significance**

Effects to Building Structures and Services from Ground Contamination

11.95. Although the likely significant effect of ground contamination on buried infrastructure has been assessed as being insignificant, foundations, together with services would be selected and designed using the results of the ground investigation. Potable water supply pipes would be selected in accordance with relevant guidance and in consultation with Thames Water. Providing these measures are adhered to, the likely residual effect would remain as **insignificant**.

Effects to Ecological Receptors from Ground Contamination

11.96. In all areas of soft landscaping, imported, clean and inert suitable for use soils would be utilised to break any pollutant linkages between residual contamination and vegetation.

11.97. In consideration of the above, all relevant contamination receptor linages would be broken as part of the Development or by mitigation measures. Furthermore, the operation of the Development would not give rise to any additional potential pollutant pathways to future occupants, users and visitors to the Site. Accordingly, the likely residual effect to ecological receptors on the Site would be **insignificant**.

11.98. In respect of any ecological receptors surrounding the Site, including those associated with the River Thames, the likely effect of the completed and operational Development in respect of contamination would likely range from insignificant to long-term, local, beneficial and of minor significance. The latter would be representative of the likely reduction of silt and oil deposition into the River Thames. The likely residual effect would therefore remain as the likely effect. That is, ranging from insignificant to **long-term**, **local**, **beneficial** and of **minor significance**.

Summary

11.99. **Table 11.5** summarises the likely significant effects, mitigation measures, and likely residual effects identified within this Chapter.

Table 11.5: Summary of Likely Significant Effects, Mitigation Measures and Likely Residual Effects

Issue	Likely Significant Effect	Mitigation Measures	Likely Residual Effect
The Works			
Effects to the human health of construction workers from ground contamination and dust.	**Insignificant**.	Implementation of a CEMP to manage the Works to effectively minimise contamination risks.	**Insignificant**.
Effects to the human health of the public surrounding the Site, and early occupants of the Development from dust.	**Temporary**, **short** to **medium-term**, **local**, **adverse** and of **minor significance**.		**Insignificant**.
Installation of piles associated with the buildings of the Development, creating a pollutant pathway to the Secondary A Aquifer beneath the Site.	**Insignificant**.		**Insignificant**.
Installation of piles associated with the river wall, creating a pollutant pathway to the River Thames.	**Temporary**, **short** to **medium-term**, **local**, **adverse** and of **moderate significance**.		**Insignificant**.
Removal of existing areas of hardstanding, thereby increasing the permeable cover of the Site, allowing for increased rainwater / surface water infiltration to the ground,	**Temporary**, **short** to **medium-term**, **local**, **adverse** and of **minor significance**.		**Insignificant**.

Issue	Likely Significant Effect	Mitigation Measures	Likely Residual Effect
underlying Secondary A Aquifer and River Thames.			
Removal of existing areas of hardstanding, thereby increasing the permeable cover of the Site, allowing for increased rainwater / surface water infiltration to the ground, underlying Principal Aquifer.	**Temporary**, **short** to **medium-term**, **local**, **adverse** and of **moderate significance**.		**Insignificant**.
Introduction of potential contaminants on the Site which could increase the risk of leakages and spillages to the ground (Secondary A Aquifer) and the River Thames.	**Temporary**, **short** to **medium-term**, **local**, **adverse** and of **minor significance**.		**Insignificant**.
Effects to ecological receptors on and off the Site from ground contamination and dust.	**Temporary**, **short** to **medium-term**, **local**, **adverse** and of **minor significance**.		**Insignificant**.
Effects associated with UXO.	**Long-term**, **local**, **adverse** and of **major significance**.	Undertaking of a detailed desk-based UXO assessment to identify and classify the actual on-Site risk posed by UXO and appropriate mitigation measures.	**Insignificant**.
Completed Development			
Effects to the human health of occupants, users and visitors of the Development from ground gas within buildings and hard-landscaped areas.	**Long-term**, **local**, **adverse** and of **moderate significance**.	Further ground and geotechnical investigation to inform an appropriate Remediation Strategy for the Site, as required, thereby ensuring the Site is suitable for its intended end use and does not pose any significant contamination risk to human health and the environment. This may include the implementation of ground gas and vapour mitigation measures and the likely use of	**Insignificant**.
Effects to the human health of occupants, users and visitors of the Development from ground contamination within soft-landscaped areas.	**Insignificant** to **long-term**, **local**, **adverse** and of **moderate significance**.		**Insignificant**.
Effects to controlled waters (including the River Thames) from ground contamination.	**Long-term**, **local**, **beneficial** and of **minor significance**.		**Long-term**, **local**, **beneficial** and of **minor significance**.

Issue	Likely Significant Effect	Mitigation Measures	Likely Residual Effect
Effects to buildings structures and services from ground contamination.	**Insignificant**.	imported clean and inert soils within areas of proposed soft-landscaping.	**Insignificant**.
Effects to ecological receptors on the Site from ground contamination.	**Insignificant** to **long-term**, **local**, **adverse** and of **minor significance**.		**Insignificant**.
Effects to ecological receptors off-Site, including those associated with the River Thames.	**Insignificant** to **long-term**, **local**, **beneficial** and of **minor significance**.		**Insignificant** to **long-term**, **local**, **beneficial** and of **minor significance**.

References

1 CL:AIRE, Model Procedures for Land Contamination (Contaminated Land Report 11 (CLR 11)); September 2004.

2 Landmark Envirocheck information (ref. 89303208_1_1); June 2016.

3 Bomb Sight: Mapping the WWII Bomb Census; www.bombsight.org; accessed online June 2016.

4 The Environment Agency Aquifer Designation Map; www.environment-agency.gov.uk; accessed online November 2014.

5 Aecom (2015); Stag Brewery: Phase 1 Environmental Site Assessment, July 2015.

6 Groundsure 2017, Preliminary Unexploded Ordnance Risk Assessment (SCL-3318495, 2017.

7 Construction (Design and Management) Regulations 2015.

8 The Stationery Office (2002): Control of Substances Hazardous to Health (COSHH) Regulations 2002, The Stationery Office.

APPENDICES

A. Appendix 11.1: Preliminary Environmental Risk Assessment

APPENDIX 11.1
PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT

Preliminary Environmental Risk Assessment

The Former Stag Brewery, Mortlake, London

February 2018

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This document has been prepared and checked in accordance with Waterman Group's IMS (BS EN ISO 9001: 2008, BS EN ISO 14001: 2004 and BS OHSAS 18001:2007)

Issue	Date	Prepared by	Checked by	Approved by
3-3-1	February 2018	Robbie J Moore	David Misstear	Carl Slater
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Comments

Disclaimer

This report has been prepared by Waterman Infrastructure & Environment Limited, with all reasonable skill, care and diligence within the terms of the Contract with the client, incorporation of our General Terms and Condition of Business and taking account of the resources devoted to us by agreement with the client.

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Executive Summary

Objectives

Waterman Infrastructure & Environment Limited ('Waterman IE') was instructed by Reselton Properties Limited to undertake a Preliminary Environmental Risk Assessment for ground contamination for the proposed residential-led mixed used development at the Stag Brewery, Mortlake, SW14 7ET (the "Site").

Site Setting

Current Use	The Stag Brewery ceased operations in late 2015 and decommissioning of brewery infrastructure was undertaken following cessation of brewery activities. Most recently, works on-Site have been undertaken in respect of removal of brewery fixtures and fittings. A sports field is located in the west.
History	Brewery use since the 15th Century, which expanded to occupy the majority of the eastern half of the Site by 1896 and the whole Site except for the playing fields by 1974. Brewery activities ceased on the Site in December 2015.
Geology	Up to 2.7m Made Ground, then 1.7 – 5.4m of superficial deposits (Alluvium and Kempton Park Gravel Formation). Alluvium is sporadically absent across the Site. Beneath this is approximately 73m London Clay Formation, followed by 15 – 20m of Lambeth Group, 5 – 10m Thanet Formation and the Chalk Group at depth.
Controlled Waters	The Alluvium and Kempton Park Gravel Formation contain a Secondary A Aquifer, with the London Clay Formation classified as an Unproductive Stratum. The Lambeth Group and Thanet Formation are Secondary A Aquifers. The Chalk Group is a Principal Aquifer.
Consultation	A Landmark Envirocheck dataset was commissioned for the Site. Information was also requested from the London Borough of Richmond upon Thames Environmental Health, Building Control and Planning Departments.

Preliminary Conceptual Model

The potential pollutant linkages identified for the Site are as follows:

- Potential for ground gas and vapour ingress into the buildings of the proposed redevelopment from Made Ground, Alluvium and hydrocarbon contamination within shallow groundwater;
- Potential exposure of construction workers and the general public during the demolition, refurbishment, alteration and construction works (the 'Works') to contaminated soils, groundwater, airborne dust, ground gases and vapours;
- Potential to encounter unexploded ordnance (UXO) during the Works;
- Potential contamination of shallow groundwater from the release of existing contamination in soil and introduction of new potential sources of contamination during the Works;
- Potential mobilisation of contamination via historical abstraction wells into the Chalk Group Principal aquifer;
- Potential contamination of shallow groundwater and the River Thames from the release of existing contamination (for example, via surface run-off from stockpiled materials or mobilisation of ground contamination by rainfall infiltration after removal of hardstanding during demolition), and introduction of new sources of contamination during the Works;
- Potential exposure of future occupants and visitors of the proposed development to residual ground contamination via soft landscaping, and to ground gas and vapour accumulation; and
- Potential exposure of buried structures and services to ground and groundwater contamination, leading to chemical attack.

Conclusions

Given the proposed end use of the redevelopment, the overall risk rating for the Site is assessed as **Medium**. The recommendations of this report outline preliminary remedial and mitigation measures that require confirmation through additional works. However, once successfully implemented the risks are anticipated to be **Low**. Therefore the National Planning Policy Framework (NPPF) requirement that on completion the Site can no longer be captured under the Part IIA regime is expected to be met.

Recommendations

The following actions are recommended to address the potential contamination risks identified:

- Geoenvironmental investigation for the design of the proposed development, including:
  - Installation of ground gas and vapour monitoring wells targeting the Made Ground, Alluvium and Kempton Park Gravel Formation;
  - Sampling and testing of shallow groundwater for contamination identified by previous ground investigations, and to assess the risk of chemical attack to buried structures;
  - Six ground gas and vapour monitoring visits at the installed wells over a period of three months;
  - Sampling of soils for contamination identified by previous ground investigations, and for preliminary waste classification purposes;
- An environment watching brief should be undertaken throughout ground works associated with the Works and additional environmental sampling should be undertaken where visual or olfactory contamination is suspected within the Made Ground and Kempton Park Gravel Formation;
- A detailed UXO desk study should be undertaken by a suitably qualified Explosive Ordnance Disposal (EOD) Engineer to assess the risk posed by UXO beneath the Site. The recommendations of this assessment should be followed during the Works;
- A Construction Environmental Management Plan (CEMP) should be developed for the Site, detailing measures to minimise the potential risk to the River Thames and shallow Secondary A aquifer during the Works;
- During the Works, appropriate measures for managing materials, chemicals and waste should be utilised. Measures should also be taken to prevent run-off from stockpiled soils reaching the River Thames, and to supress the generation of dust;
- Following removal of hardstanding across the Site post-demolition, an attempt should be made to locate the historical abstraction wells and decommission them if necessary;
- Construction workers should be provided with and use personal protective equipment (PPE), respiratory protective equipment (RPE) and informed of good hygiene measures as protection against direct contact with contaminated Made Ground, contaminated groundwater or ground gas / vapours;
- Concrete used in construction, and any new water pipes installed as part of the redevelopment works should be appropriately protected against chemical attack from potential contamination in Made Ground, shallow soils and shallow groundwater underlying the Site;
- The results of the ground gas and vapour monitoring should be used to inform the design of any gas protection measures necessary within buildings at the proposed development;
- Private gardens at the proposed development should be planted using an appropriate thickness of imported, certified clean cover material.

1. Introduction

This Preliminary Environmental Risk Assessment (PERA) for ground contamination has been prepared by Waterman Infrastructure & Environment ('Waterman IE') on behalf of Reselton Properties Limited ('the Applicant') in support of three linked planning applications for the comprehensive redevelopment of the former Stag Brewery Site in Mortlake ('the Site') within the London Borough of Richmond Upon Thames ('LBRuT').

The former Stag Brewery Site is bounded by Lower Richmond Road to the south, the river Thames and the Thames Bank to the north, Williams Lane to the east and Bulls Alley (off Mortlake High Street) to the west. The Site is bisected by Ship Lane. The Site is a former brewery, with offices, staff facilities, warehouses, brewhouses, hardstanding parking and loading areas, and various tanks, with a playing field in the west of the Site. The majority of the Site has been stripped internally of soft furnishings and supplies, along with some of the brewery infrastructure. A number of potentially contaminative tanks, bunds and pipework at the Site have been drained, cleaned and certified as decommissioned by Bale Group between December 2015 and January 2016.

The redevelopment (hereafter referred to as the 'Development') will provide homes (including affordable homes), a Care Village for an older population, complementary commercial uses, community facilities, a new secondary school alongside new open and green spaces throughout. Associated highway improvements are also proposed, which include works at Chalkers Corner junction.

The three planning applications are as follows:

- Application A – hybrid planning application for comprehensive mixed use redevelopment of the former Stag Brewery site consisting of:
  i. Land to the east of Ship Lane applied for in detail (referred to as 'Development Area 1' throughout); and
  ii. Land to the west of Ship Lane (excluding the school) applied for in outline (referred to as 'Development Area 2' throughout).
- Application B – detailed planning application for the school (on land to the west of Ship Lane).
- Application C – detailed planning application for highways and landscape works at Chalkers Corner.

Full details and scope of all three planning applications are described in the submitted Planning Statement, prepared by Gerald Eve LLP.

This report has been prepared in order to assess the likely presence of contamination at the Site. Following a review of the relevant information, this PERA concludes with an environmental assessment, indicating the risk and recommendations relating to ground conditions and contamination.

1.1 Regulatory Context

The National Planning Policy Framework (NPPF) sets out Government planning policy for England and how this is expected to be applied to development. Paragraphs 120 to 122 of Section 11 – Conserving and enhancing the natural environment of the NPPF relate to contaminated land matters and state the following:

"To prevent unacceptable risks from pollution and land instability, planning policies and decisions should ensure that new development is appropriate for its location. The effects (including cumulative effects) of pollution on health, the natural environment or general amenity, and the potential sensitivity of the area or proposed development to adverse effects from pollution, should be taken into account. Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

Planning policies and decisions should ensure that:

- *the site is suitable for its new use taking account of ground conditions and land instability, including from natural hazards or former activities such as mining, pollution arising from previous uses and any proposals for mitigation including land remediation or impacts on the natural environment arising from that remediation;*
- *after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and*
- *Adequate site investigation information, prepared by a competent person, is presented.*

In doing so, local planning authorities should focus on whether the development itself is an acceptable use of the land and the impact of the use, rather than the control of processes or emissions themselves where these are subject to approval under pollution control regimes. Local planning authorities should assume that these regimes will operate effectively. Equally, where a planning decision has been made on a particular development, the planning issues should not be revisited through the permitting regimes operated by pollution control authorities."

In order to assess the contamination status of the Site, with respect to the proposed end use, it is necessary to assess whether the Site could potentially be classified as "Contaminated Land", as defined in Part IIA of the Environmental Protection Act 1990 and Contaminated Land Statutory Guidance 2012. This is assessed by the identification and assessment of potential pollutant linkages. The linkage between the potential sources and potential receptors identified needs to be established and evaluated.

To fall within this definition, it is necessary that, as a result of the condition of the land, substances may be present in, on or under the land such that:

a) significant harm is being caused or there is a significant possibility of such harm being caused; or

b) significant pollution of controlled waters is being caused, or there is significant possibility of such pollution being caused.

It should be noted that DEFRA has advised (Ref. Section 4, DEFRA Contaminated Land Statutory Guidance 2012) Local Authorities that land should not be designated as "Contaminated Land" where:

a) the relevant substance(s) are already present in controlled waters;

b) entry into controlled waters of the substance(s) from land has ceased; and

c) it is not likely that that further entry will take place.

These exclusions do not necessarily preclude regulatory action under the Environmental Permitting (England and Wales) Regulations 2010, which make it a criminal offence to cause or knowingly permit a water discharge of any poisonous, noxious or polluting matter to controlled waters. In England and Wales, under The Water Resources Act 1991 (Amendment) (England and Wales) Regulations 2009, a works notice may be served by the regulator requiring appropriate investigation and clean-up.

1.2 Constraints

The information contained in this report is based on a review of available historical, geological and hydrogeological sources, consultation with the regulatory authorities and observations made at the Site on 14 July 2016.

Waterman IE has endeavoured to assess all information provided to them during this investigation, but makes no guarantees or warranties as to the accuracy or completeness of this information.

The scope of this site investigation includes an assessment of the presence of asbestos containing materials in the ground at the Site but not within buildings or structures or below ground structures (e.g. basements, buried service ducts, etc).

The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the Site.

2. Methodology

This Preliminary Environmental Risk Assessment has been undertaken in general accordance with the Model Procedures for Management of Land Contamination (Contaminated Land Report 11 – Environment Agency, September 2004).

The report includes the following:

- Collation of available documentary information;
- A Site reconnaissance;
- Hazard identification;
- Formulation of a Preliminary Conceptual Model for the Site;
- Hazard assessment for the identification of potentially unacceptable risks; and
- Recommendations for further action.

3. Hazard Identification

3.1 Site Description and Reconnaissance

The Site is centred at National Grid Reference 520360, 175990, in Mortlake, southwest London. Figure 1 in Appendix A presents the current site layout.

For the purposes of this report and for the ease of description the Site is divided into two areas, an East Site and a West Site. The East Site is entirely occupied by brewery buildings, and the West Site is occupied by further brewery buildings in the north and east, and a playing field in the southwest. Thames Water sewers pass beneath the Site.

East Site

The East Site is occupied by five main buildings: the Maltings; a large warehouse and packaging building; the (former) Bottling Hall; the (former) Hotel formerly occupied by a health centre, workshop, bar and canteen; and the Power House. These buildings are surrounded by hardstanding. There are three electrical substations, two located at the 1st and 2nd floor of the Power House and one located within the Bottling Warehouse (also referred to as Packaging).

The Maltings is located at the northwest corner of the Site and is seven storeys with a single storey basement. This building has been entirely stripped internally and is empty.

The centre of the Site is occupied by a large Bottling Warehouse, with a double-height ceiling at the work floor and a two-storey office integrated along the western side of the building. The warehouse has been cleared internally, but contains some remaining packaging equipment. The offices contain some waste not yet cleared such as office furniture, promotional stands and display bottles.

The (former) Bottling Hall and the (former) Hotel are located at the southern edge of the Site, at approximately two-storeys they are subdivided into a medical room in the western, a canteen with food cellar, a small workshop and a bar. Above the workshop, bar and canteen are a series of meeting rooms. All rooms in this building had been cleared except for furniture in the canteen, and disused, partially disassembled pump equipment and tools in the workshop.

The Powerhouse is a four-storey building with rooftop access in the west of the Site. The ground floor contains pipework for ammonia tanks which have been removed. On the first floor are two large water tanks, with associated pipework. The second floor contains an electrical substation, along with two glycol tanks, a water tank, and further pipework. Access was not available to the third floor. The fourth floor leads to rooftop access, with four air conditioning units.

Further tanks and chemical stores were observed outside of the buildings on-Site. These are detailed in Table 1.

Table 1: Summary of Potentially Contaminative Activities on East Site

Potential Issue	Description	Condition
Above ground Storage Tanks (and fuel lines)	Glycol carbon filter tank and pipework in southwest corner of the Site, approximately 4,700l capacity.	Appeared in good condition with no damage, corrosion or staining. Certified as decommissioned.
	2 glycol tanks and pipework at 2nd floor within energy centre, estimated capacity 10,500l each.	Appeared in good condition with no damage, corrosion or staining. Not known if they were empty.
Drainage	Drainage at the East Site is combined. It is not known if there is an interceptor.	Hardstanding appeared to be in good condition, drains were clear with no evidence for overflowing.
Hazardous Materials	2 metal chemical storage containers located outside western face of warehouse.	Containers were empty, contained empty spill trays at base.
Solid and Liquid Waste Storage	Waste oil tank 2 located outside southwestern corner of the warehouse, approximately 3,350l capacity.	Appeared in good condition with no damage, corrosion or staining. Marked as decommissioned.

West Site

The West Site comprises the following main buildings surrounded by hardstanding: the Production Office (also referred to as POB); two. Brewhouses; a Finishing Building; a Filtration Building; and two Maintenance Buildings (also referred to as packaging and processing buildings). The brewery is adjacent to a sports field in the west of the Site, which has a two-storey clubhouse. Some trees are set in hardstanding at the northern and eastern boundary of the West Site. There are four electrical substations, located at ground floor in the northernmost Brewhouse, adjacent to an effluent tank in the north, at the second floor in the Filtration building and at the first floor of the Production Office.

The Production Office is a four-storey building with a single-level basement. Two large water tanks are situated within this basement, along with a diesel generator with diesel tank, and pumping infrastructure. The above-ground floors contain meeting rooms, which have been cleared out with some furniture remaining.

The Brewhouse Buildings and Finishing Building are adjacent three-storey and four-storey blocks in the east of the Site. Each building contains brewing equipment and infrastructure comprising numerous large tanks for grain and beer, and interconnecting pipework. Some tanks have been removed from these buildings, evidenced by tank pads at the third floor of the southern Brewhouse.

The Filtration Building is a part three, part four storey building in the centre of the Site. The main section of the building is occupied by brewing infrastructure such as tanks and pipework, with an office complex on all floors at the northern end. The ground floor and first floor of the filtration building are disused offices which have been cleared out. At the second floor of the Filtration building is a set of offices and a small laboratory for product testing, largely cleared but with desks and some small desktop equipment remaining.

The Maintenance Buildings are located in the northwest corner of the Site. Both are single storey, and are used for storage of pump equipment, parts and tools. Access was not available to the second Maintenance building.

Adjacent to the brewery to the west is a large, open playing field, with a two-storey clubhouse at the western boundary. Access was not available to this clubhouse at the time of the walkover.

Further tanks and chemical stores were observed outside of the buildings on-Site. These are detailed in Table 2.

Table 2: Summary of Potentially Contaminative Activities on West Site

Potential Issue	Description	Condition
Above ground Storage Tanks (and fuel lines)	Propagation tank located against western boundary wall, approximately 5,300l capacity. Constructed on stilts.	Appeared in good condition with no damage, corrosion or staining. Not known if it was empty.
	Salt tank located at the east wall outside the Brewing Building, estimated at 50,000l capacity.	Appeared in good condition, not known if it was empty.
	Caustic soda tank and hydrochloric acid tank adjacent to Salt tank, estimated at 63,000l each and surrounded by a shallow bund.	Caustic soda tank and hydrochloric acid tank both certified as decommissioned. Water was observed in the sump of the hydrochloric acid tank.
	Diesel tank against northern boundary, estimated capacity 6,750l.	Appeared in good condition, certified as decommissioned.
	Hydrochloric acid tank, caustic soda tank and LCT tank with pipework outside southern wall of westernmost Maintenance Building, each estimated at 8,500l, 6,000l and 6,000l.	Tanks empty. Appeared in good condition with no damage, corrosion or staining.
Drainage	Drainage at the West Site is combined. It is not known if there is an interceptor.	Hardstanding appeared to be in good condition, drains were clear with no evidence for overflowing.
Hazardous Materials	4 metal chemical storage containers located outside north wall of Finishing building.	Containers were empty, contained spill trays at base.
	3 metal chemical storage containers located against western boundary wall.	Containers were empty, contained spill trays at base.
	2 metal chemical storage containers located west of Filtration building.	Containers were empty, contained spill trays at base.
	6no hazardous gas cylinder storage bays, marked for nitrogen, compressed air, helium, hydrogen and acetylene.	Storage bays were empty.
	Diesel generator and pipework in basement of production offices, supplied by 800 litre diesel tank on raised platform.	Appeared in good condition with no damage, corrosion or staining. Tank certified as decommissioned.
Solid and Liquid Waste Storage	Effluent tank on raised platform in centre of northern part of the Site, approximately 100,000l	Appeared in good condition, certified as decommissioned.
	Waste yeast tank and pipework outside western wall of Filtration Building, estimated at 25,000l capacity.	Tank empty. Appeared in good condition.
	Waste oil tank 1 located against western boundary wall, approximately 3,350l capacity.	Appeared in good condition, certified as decommissioned.

3.1.1 Environmental Permits for the Site

The following Pollution, Prevention and Control licenses, discharge consents, licensed waste management facilities and registered radioactive substances are now covered by Environmental Permits:

- Integrated Pollution, Prevention and Controls (IPPC): Environmental Permit for a Part A(1) Activity
- Local Authority IPPC (LA-IPPC): Environmental Permit for a Part A(2) Activity
- Local Authority Pollution, Prevention and Controls (LAPPC): Environmental Permit for a Part B Activity
- Licensed Waste Management Facilities: Environmental Permit for waste activities
- Registered Radioactive Substances: Environmental Permit relating to radioactive substances
- Discharge Consents: Environmental Permit for discharges to groundwater/surface water

According to the Landmark Envirocheck report, presented in Appendix C, the following licence and consents is registered to the property:

- Four Integrated Pollution Prevention and Control applications, registered to The Stag Brewery. Three of these were registered in November 2005 and relate to treating of raw materials for food processes (brewing). The last of these applications was for surrender of the permit upon closure of the brewery and was submitted in March 2015. A surrender notice was issued by the EA in June 2016.

A site location plan and site layout plan are presented as Appendix A. A selection of photographs taken during the site inspection is presented as Appendix B.

3.1.2 Site Surroundings

A summary of the current surrounding land uses within 1km of the Site, including relevant licences and consents, is shown in Table 3.

Table 3: Summary of Surrounding Land Uses within 1km

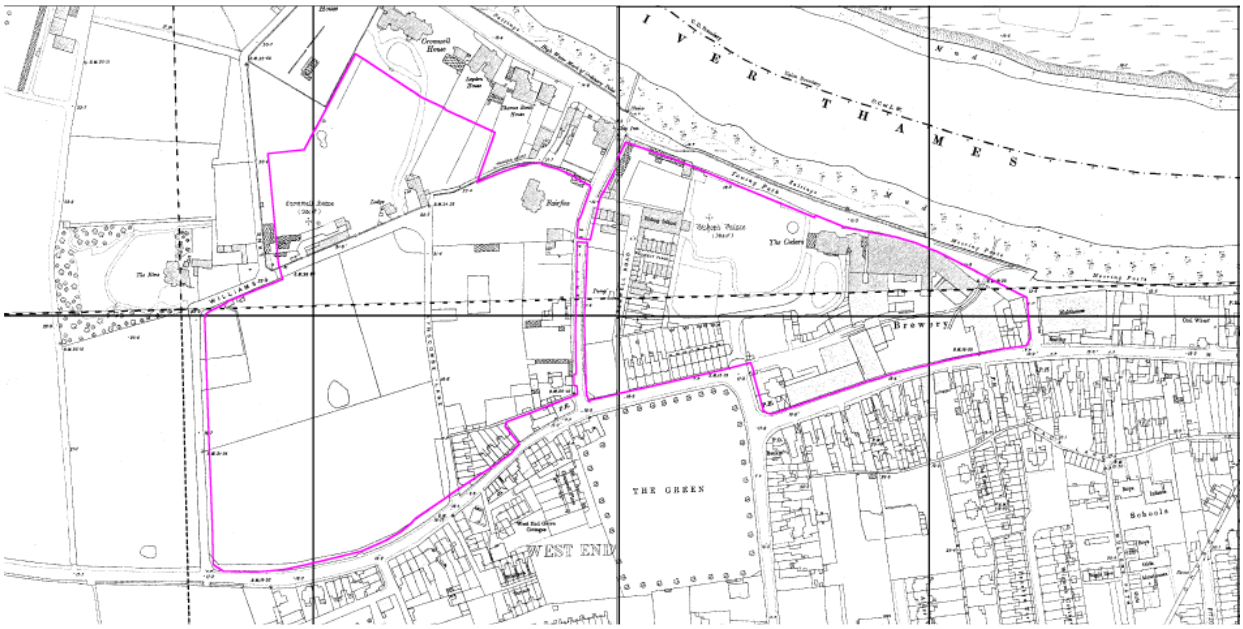
Location	Description
North	The River Thames. 4 historical landfills, the closest 127m northwest, named Dukes Meadow and accepting waste between 1945 and 1950. The further four landfills are between 233m and 419m north, and where recorded accepted inert and industrial waste. These landfills closed between 1934 and 1935. Single active licensed waste management facility, 519m northwest and managing household, commercial and industrial waste. This site is also a Registered Waste Transfer Site. Single Local Authority Pollution Prevention and Control, 237m northwest and registered to a crematorium. 4 active Contemporary Trade Directory Entries, the closest 241m northwest and registered to a crematorium. Further entries are for a cleaning service, laboratory and a road hauliers.
East	Warehouses, residences. 2 Local Authority Pollution Prevention and Controls, closest 74m east and registered to a dry cleaners. The further entry 852m west is also for a dry cleaners. 10 active Contemporary Trade Directory Entries, the closest an optical goods manufacturer 42m east. Further entries are for a range of industrial and commercial activities including garages, vehicle parts makers, car dealers, laundries, and glass pane makers.
South	Mortlake High Street, commercial premises and residences. 5 Local Authority Pollution Prevention and Control, the closest 246m south and registered to a petrol filling station. Further entries are for a further petrol filling station and three dry cleaners.

Location	Description
	29 active Contemporary Trade Directory Entries, the closest a builders merchant 163m southeast. Further entries are for industrial and commercial activities including car dealers, garages, printers, petrol filling station and dry cleaners.
West	Williams Lane, residences. Single Local Authority Pollution Prevention and Control, 810m west and registered to a petrol filling station. 7 active Contemporary Trade Directory Entries, the closest a car dealers 378m west. Further entries are for a second car dealers, two petrol station, lampshade makers, distribution centre, and clothing maker.

There are no recorded Environmental Permits relating to handling of Local Authority Pollution Prevention and Controls, radioactive substances or explosives, Control of Major Accident Hazards (COMAH), or Notifications of Installations Handling Hazardous Substances (NIHHS) within 1km of the Site.

3.2 History

Figure 1: Historical Site Use



Source: Landmark Envirocheck 1:1,056 Historical Town Plan (1895) (Report ref. 89303208_1_1)

A review of historical maps obtained from Landmark Information Group Historical Maps has been undertaken. Table 4 summarises the relevant information in chronological order.

Table 4: Site History

Source	Site [a]	Surroundings [a]
Surrey, Middlesex, Maps 1868*, 1870*, 1871*, 1896 (1:2,500) London Map 1895 (1:1,056) Surrey Maps 1873*, 1871-1874 (1:10,560)	A ***brewery*** occupies the eastern half of the Site. The western half of the Site is playing fields.	***Smithy*** directly adjacent to the Site to the east. ***Railway station*** and ***railway lines*** 150m to the south. Majority of the area surrounding the Site is residential, playing fields and a farm.
London Maps 1896 (1:2,500), 1896, 1898-1899 (1:10,560)	No significant changes.	***Coal wharf*** 100m east. ***Drainage works*** 750m northwest.
Insurance Plans (1907) 1:480 Surrey Maps 1913, 1914-1915*, 1919* (1;2,500), 1920 (1:10,560)	No significant changes.	***Bus garage*** present 300m southeast. ***Clay works*** 500m west. ***Electricity works*** 350m east. ***Electricity works*** 350m east are no longer present. ***Sewage works*** adjacent to ***drainage works*** 700m northwest.
Surrey Maps 1933, 1938* (1:10,560) Surrey Maps 1934-1935 (1;2,500), 1933 (1:10,560)	Large, unnamed commercial structures have been built in the western half of the Site.	***Incinerator*** 500m northwest Further warehouses have been built 100m-350m east.
OS Plan 1940-1958 (1:10,000) Historical Aerial Photography 1946 (1;1,250)	No significant changes.	***Incinerator*** is now a ***works***.
OS Plans 1952-1953 (1;2,500) OS Plan 1952-1960 (1;1,250) OS Plan 1953-1961, 1968* (1:2,500) Additional SIMs 1952-1953* (1:2,500)	Large commercial structure in the western part of the Site is listed as a ***garage***.	***Engine works*** 20m south ***Garages*** 40m and 140m south. The ***coal wharf*** 100m east is now a ***foundry***. ***Corporation depot*** 420m east. ***Coal bunker*** 350m east.
Additional SIMs 1953-1961*, 1952-1977 (1:2,500)	No significant changes.	The ***smithy, foundry*** and ***coal bunker*** are no longer listed. ***Electrical substations*** are listed 60m southeast, 400m southeast, 120m south and 240m south of the Site.
OS Plan 1974*, 1961-1978* (1:1,250) 1962-1966, 1966-1967*, 1975-1976* (1:10,000) Additional SIMs 1965-1978* (1:1,250)	Structures in the western half of the Site have been demolished or reduced in size. The ***garage*** is no longer listed. Six ***tanks*** are present in the southern half of the Site.	The ***corporation depot*** and ***works*** are no longer listed.

Source	Site [a]	Surroundings [a]
Additional SIMs 1978-1988*, 1987*, (1:1,250) London Map 1985 (1:25,000) National Grid Data 1991 (1:1,250)	No significant changes.	The ***engine works*** has expanded with additional buildings. The ***garage*** 40m south is no longer listed. A ***scrap yard*** is present 40m south.
National Grid Data 1991-1992*, 1991-1994, 1992-1995* (1:1,250) OS Plan 1992* (1:10,000)	Two large ***tanks*** in the northwest corner of the Site, and three smaller ***tanks*** in the west of the Site.	***Bus depot*** is no longer present.
Raster mapping 1999, 2006 (1:10,000) Historic Aerial Photography 1999 1:1,250) Vector Map 2016 (1:10,000)	No significant changes	The ***engine works*** and ***scrap yard*** are no longer listed.

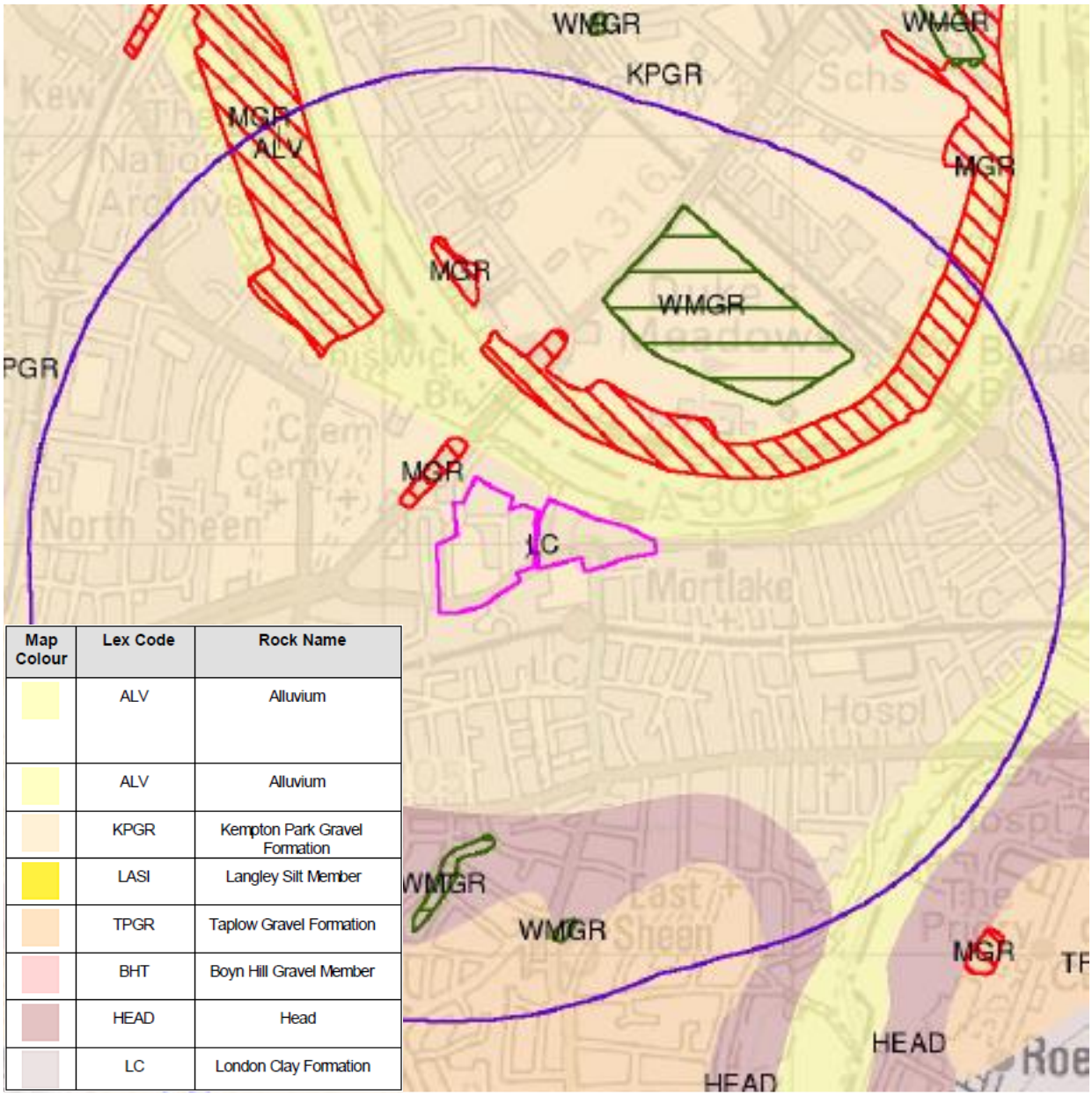
[a] potentially contaminative uses are shown in bold italics.

* maps do not have entire coverage of the Site or surrounding area.

3.3 Geology

The geology beneath the Site has been established from previous ground investigations by Dames and Moore (1995), CRA (2003) and Aecom (September 2015), alongside British Geological Survey 1:50,000 map sheet 270 (South London, Solid and Drift Edition), BGS borehole records TQ27/NW-596 and TQ27/NW-597, and the BGS website (accessed online 29/06/2016). The results are outlined in Figure 2.

Figure 2: Site Geology



Map Colour	Lex Code	Rock Name
	ALV	Alluvium
	ALV	Alluvium
	KPGR	Kempton Park Gravel Formation
	LASI	Langley Silt Member
	TPGR	Taplow Gravel Formation
	BHT	Boyn Hill Gravel Member
	HEAD	Head
	LC	London Clay Formation

Source: Landmark Envirocheck Combined Geological information (Report ref. 89303208_1_1)

A summary of the geology is provided in Table 5.

Table 5: Site geology

Stratum	Area Covered	Estimated Thickness (m)	Typical Description
Made Ground	Whole Site	0.4 – 2.7	Predominantly coarse sand and gravel, including pieces of brick and minor amounts of black clinker.
Alluvium	Sporadic across Site	0.3 – 1.5	Soft brown grey slightly gravelly clay.
Kempton Park Gravel Formation	Whole Site	1.4 – 3.9	Clayey, silty sand with varying gravel content with areas of soft, brown, sandy clay.
London Clay Formation	Whole Site	73	Stiff grey to brown clay, with occasional pockets of silt and sand.
Lambeth Group	Whole Site	15 – 20	Clay, some silty or sandy, with sands and gravels.
Thanet Formation	Whole Site	5 – 10	Fine grained sand that can be clayey and glauconitic. Flints at the base of the formation.
Chalk Group	Whole Site	Not proven	Chalk and flints.

BGS mapping does not indicate Alluvium is present beneath the Site. However, ground investigations at the Site found it is sporadically present in areas.

3.3.1 Ground Stability

The BGS map does not reveal any structural, geomorphological or geochemical features on or near to the Site. According to Landmark dataset, there is a moderate potential risk of shrinking or swelling clay ground stability hazards at the Site.

The Site is not in an area that could be affected by coal mining activity.

3.3.2 Unexploded Ordnance

There is a risk unexploded bombs, anti-aircraft projectiles and/or incendiary bombs fell unnoticed and unrecorded within the Site boundary. The Preliminary Unexploded Ordnance Risk Assessment (Ref. 501990) for the Site produced by Groundsure (Appendix C), identifies an overall medium risk classification for the Site. Historical records indicate during WWII the LBRuT sustained a high density of bombing and bomb risk maps have identified several high explosive bombs as having fallen on parts of the Site.

3.3.3 Ground Gas and Vapours

According to information from Public Health England, the Site is not located in an area of elevated radon gas levels (a naturally occurring gas). Correspondingly, radon protection measures are not required in the development of new buildings or extensions.

However, in 2009 the Health Protection Agency (HPA), now Public Health England, recommended that radon protection measures be built into all new occupied buildings in the UK, whether or not they were situated in radon sensitive area as identified by British Geological Survey (BGS) maps. The Building Regulations Advisory Committee supported the HPA's proposal. However, the then Government rejected this recommendation and the current Building Regulations (2013) do not include it.

Discussions within the industry centre around the possibility that radon protection measures should be considered in all new buildings whether located in a radon affected area or not. This approach should be confirmed with the Building Control Officer.

There are four registered landfills within 500m of the Site. These landfills are all located to the north, and are separated from the Site by the River Thames. This is likely to prevent the migration of ground contamination, ground gas and vapours from these landfills to the Site.

3.4 Controlled Waters

3.4.1 Surface Waters

The nearest surface water to the Site is the River Thames, directly adjacent to the Site to the north. The Ecological Potential of the River Thames has been assessed as 'Moderate' under the Water Framework Directive.

There are no surface water abstractions within 1km of the Site. The closest is 1,326m northeast, drawing water from the River Thames to supply a lake/pond.

There are five recorded active Environmental Permits for discharges to surface water within a 1km radius of the Site. The closest of these is located 763m northwest, operated by Thames Water for discharge of public sewage overflow to the River Thames. The further four are also for sewage overflows. On-Site sewer records indicate that some areas of the Site currently drain to the Thames Water surface water sewer network, ultimately discharging to the River Thames.

The Environment Agency (EA) records a single pollution incident to surface water from the Site, involving a spill of unknown chemicals at Stag Brewery. The spill was recorded as a Category 3 (minor incident). A further two Category 2 (significant incident) spills are recorded at Ship Lane, which runs between the East Site and the West Site, involving miscellaneous chemicals and unknown chemicals. These spills likely originated from the Site. Further information has been requested from the EA in this regard, although a response is pending.

Environmental Incident Reports provided for the Site to Aecom referred to 15 spill incidents during operation of the brewery between 2009 and 2015. These included spills to drainage of brewing substances (wort, beer, grain, yeast and sugar) and mechanical fluids (lubricant, hydraulic oil, oxafoam, diesel and unidentified substances). Whether the spills were cleaned up, or the clean-up methodology used for each spill is not recorded.

Six pollution incidents to surface waters are recorded within 1km of the Site. The closest of these occurred 475m northwest, involved a miscellaneous spill of oils to the River Thames and was a Category 2 (significant incident). The further pollution incidents involved oils, sewage and miscellaneous chemicals, with three classed as Category 3 and two classed as Category 2.

According to the EA indicative flooding data, the Site is located in both a Zone 2 and Zone 3 flood risk area.

During a previous walkover of the Site by Waterman in January 2016, Ship Lane and the footpath to the north of the brewery were flooded.

3.4.2 Groundwater

According to the EA online dataset, the geological deposits underlying the Site are classified as per Table 6.

Table 6: Summary of Hydrogeological Properties of the Main Geological Strata

Stratum	EA Classification	Hydrogeological Significance
Made Ground	Not classified	Likely to be sufficiently permeable to allow the migration of surface water to underlying strata.
Superficial Deposits (Alluvium and Kempton Park Gravel Formation)	Secondary A Aquifer	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These strata are likely to be in hydraulic continuity with the adjacent River Thames.
London Clay Formation	Unproductive Stratum	Rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.
Lambeth Group	Secondary A Aquifer	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
Thanet Formation	Secondary A Aquifer	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
Chalk Group	Principal Aquifer	Layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage.

The Site is not located within a groundwater Source Protection Zone. Based on available information, it is anticipated that shallow groundwater in the Alluvium and Kempton Park Gravel Formation is in hydraulic continuity with the tidal River Thames directly adjacent to the Site.

There are two recorded historical groundwater abstractions within the Site boundary, references TQ27/NW-596 and TQ27/NW-597. These wells were drilled in 1836, extended to 101m and 121m below ground level in 1858 and abstracted groundwater from the Chalk Group Aquifer. Details of abstraction volumes were not recorded.

A further two groundwater abstractions are recorded within a 1km radius of the Site. The closest of these is located 228m north at Dukes Meadow Golf Club, drawing 8,000l of groundwater per year from the Chalk Group aquifer for irrigation of the playing green. The further abstraction is located 663m northeast, also for irrigation purposes at Dukes Meadow Golf Club and drawing a further 5,000l per year.

There are no Environmental Permits for discharges to groundwater recorded within 1km of the Site.

3.5 Ecological Systems

The nearest designated ecological site to the Site is the non-statutory River Thames and Tidal Tributaries Site of Metropolitan Importance (SMI) for Nature Conservation is located adjacent to the north of the Site.

3.6 Consultations

The agencies and individuals which have been contacted and/or their records reviewed during the course of this study are listed in Table 7.

Table 7: List of Parties Consulted During this Study

Organisation	Consultee	Response
London Borough of Richmond upon Thames		
Environmental Health	Simon Makoni	Response received 01/07/2016.
Planning	-	Contacted 22/06/2016, no response was received.
Building Control	-	Contacted 22/06/2016, no response was received.
Environment Agency		
Enquiries Unit	Karen Rigg	Response received 10/09/2016.

3.6.1 Environmental Health

The Environmental Health Department reported they held records of potentially contaminative land uses in proximity to the Site between 1899 and 2016. These included the brewery on-Site alongside electrical substations, foundries, metal recycling centres, petrol filling stations and ordnance works within the surrounding 500m.

LBRuT did not hold records of any contaminated land ground investigations or remediation having taken place at the Site.

3.6.2 Planning Department

Information has been requested from LBRuT's Planning Department, no response was received.

A search of the LBRuT's planning portal (accessed online 12/07/2016) identified 105 planning applications for the Site between 1977 and 2015. The majority of these related to tree works such as pruning and branch clearing. Several applications were for minor changes to building layouts such as extensions, upgrades or erection of display hoardings.

A planning application is recorded for construction of the Bottling Warehouse at the East Site (reference 95/1625/FUL. This application was approved in July 1995, with no conditions relating to contaminated land. Four further applications are recorded for minor variations to this planning permission.

3.6.3 Building Control Department

Information has been requested from the Building Control Department, no response was received.

3.6.4 Environment Agency

Information has been requested from the EA with regard to pollution incidents, in their response they identified the following;

- Pollutant Incident 17/04/1996 involved a spillage of yeast on-site, which had a minimal impact to the tidal Thames.
- Pollutant Incident 02/07/1994 was a discharge of brown foaming trade effluent discharged directly to the River Thames from a surface water outfall due to incorrect plumbing. A CCTV survey was undertaken and the situation rectified. A local effect to the tidal Thames was recorded.
- Pollutant Incident 24/05/1989 was a discharge of contaminated water to the River Thames. The cause was identified as a broken sewer on-site allowing effluent to enter surface water drainage. The discharge was stopped on discovery and the sewer repaired.

4. Previous Environmental Assessments and Reports

The following environmental reports were provided with respect to the Site.

Table 8: List of Previous Environmental Assessments and Documents Reviewed

Author	Title	Reference and Date
Aecom	Stag Brewery: Phase 1 Environmental Site Assessment	47074683; July 2015
Aecom	Stag Brewery, Mortlake: Phase 2 Environmental Site Assessment Report	47075502; September 2015
Aecom	Stag Brewery, Mortlake: Groundwater Sampling Point Decommissioning Report	60473952; February 2016
Bale Group	Tank Decommissioning Certificates	December 2015 to January 2016

Stag Brewery: Phase 1 Environmental Site Assessment, July 2015

This desk study report was undertaken in July 2015. The objective of the report was to identify potential risks, liabilities and constraints to future developments. The study area comprised all brewery buildings on-Site, and the adjacent playing fields. At the time of the survey, the brewery was disused although twelve tanks were still present. These were identified as holding gas oil (x2), waste oil (x2), slat-lube, diesel (x2), hydrochloric acid, brine, caustic soda, and spent KG slurry (x2).

The desk study reviewed environmental, geological, hydrogeological data, and information from a number of previous reports for the Site, listed below:

- Dames & Moore Environmental Assessment (1995);
- CRA Baseline Soil and Groundwater Investigation (2003);
- SPMP Groundwater Monitoring Reports (2003 – 2012) and Review Report (2008);
- The asbestos risk register for the Site, drainage survey, environmental incident reports and periodic environmental inspections undertaken while the Site was in active use were also reviewed.

The Dames & Moore and CRA reports included intrusive ground investigation, with soil and groundwater sampling at a total of eighteen exploratory holes drilled to between 2.5m and 7.9m below ground level (bgl). Six monitoring wells were installed by Dames & Moore, and seven by CRA. CRA also undertook monitoring at four of the Dames & Moore wells during their investigation, bringing the total for their study to eleven.

Geology encountered during the ground investigations comprised Made Ground, then Alluvium which was found to be sporadic across the Site, and not present in many locations. Beneath this was River Terrace (Kempton Park) Gravel Formation, then London Clay Formation to maximum depth drilled. Groundwater was encountered at between 4 to 5.5m bgl within the River Terrace Gravel Formation, Locally perched groundwater was encountered at 1.2m to 2.6m bgl, due to the presence of underground voids. Groundwater was interpreted to generally flow towards the east / north-east, likely influenced by tidal cycles of the nearby River Thames.

Soil samples from the Made Ground, Alluvium and River Terrace Gravel Formation were analysed as part of both ground investigations for a range of organic and inorganic contaminants including metals, VOCs and SVOCs, and TPH. The Dames & Moore study found no exceedances of Dutch Intervention Values

(DIV; applicable as soil guidance values in 1995 but superseded since) were detected. In groundwater, a single exceedance of chromium and copper above DIV was recorded in one borehole, but this was not considered to be representative of the water body as a whole.

The CRA results showed no exceedances of DIV within soil samples. In groundwater, concentrations of TPH of 51ug/l and 1,114ug/l were recorded in two boreholes, in the vicinity of the fuel oil tanks.

Dames & Moore concluded that, given the lack of evidence of significant soil or groundwater contamination at the Site, the risk to off-Site groundwater receptors was low. The CRA report concurred but noted that a potential pollution pathway existed between the tanks holding caustic soda and acid, and groundwater beneath the Site via downward migration through damaged hardstanding.

Groundwater from these wells was monitored and sampled for laboratory analytical testing on a further three occasions in December 2005, April 2007 and November 2012 as part of a Site Protection & Monitoring Programme (SPMP). Results of this monitoring found that when compared against relevant Environment Quality Standards (EQS), Environmental Standards for Discharge to Surface Waters, Drinking Water Quality Standards (DWS) or WHO guidelines for drinking water some exceedances for metals, hydrocarbons and ammoniacal nitrogen. However, this was not thought to represent widespread groundwater contamination at the Site.

Neither the Dames & Moore nor the CRA study included ground gas or vapour monitoring at the Site.

The Environmental Incident Reports provided for the Site referred to 15 spill incidents during operation of the brewery between 2009 and 2015. These included spills to drainage of brewing substances (wort, beer, grain, yeast and sugar) and mechanical fluids (lubricant, hydraulic oil, oxafoam, diesel and unidentified substances).

The Aecom desk study concluded that sources on-Site were the brewery and chemicals stored for brewing operations, effluent management and historical chemical releases. Identified pathways for potential migration of any contamination were vertical and lateral transport through shallow soils, volatisation of ground contamination resulting in vapours, and direct contact between ground contamination and human receptors. Potential receptors included construction workers, future Site residents, off-Site residents and controlled waters beneath and adjacent to the Site. The risk posed by potential contamination was assessed as low due to the low levels of contamination identified by past ground investigations. However, the report recommended further ground investigation be done to confirm no localised areas of contamination were present in areas where historically intensive industrial processes were identified.

Stag Brewery, Mortlake: Phase 2 Environmental Site Assessment Report, September 2015

Aecom conducted an intrusive ground investigation between 20 and 28 August 2015. Twenty-eight boreholes were drilled to a maximum depth of 5m bgl to collect soil samples, and three deep boreholes were drilled to between 6m and 7.6m to allow for groundwater sampling.

Exploratory hole locations were chosen to target areas where the potential for localised contamination was identified. These included heavy oil storage tanks in three locations around the Site, storage areas in the northwest, the tanker cleaning pad and waste storage areas in the west, the area of a suspected historical drain leak, chemical storage areas in the west and southwest, vehicle maintenance area in the east, electrical substation, slurry tanks and engineering workshop. The remaining locations were chosen to provide general Site coverage. The geology and groundwater depths encountered during the

investigation was generally consistent with that described in geology section of this report, although the thickness of Made Ground was found to be greater than that logged by the 2003 CRA study.

In addition to the new exploratory holes, the 13 existing groundwater wells from previous ground investigations were reconditioned via desilting and pumping. Groundwater level monitoring and sampling was then undertaken at all 16 installations.

Soil samples from the Made Ground, Alluvium and River Terrace Gravel Formation were analysed for organic and inorganic contaminants including metals, polyaromatic hydrocarbons (PAH), volatile and semi-volatile organic compounds (VOCs and SVOCs), speciated total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), pH and asbestos. Results were compared against Aecom Generic Assessment Criteria for three end-use scenarios based on the anticipated development layout: residential land with gardens, residential land without gardens and commercial land.

Soil results

Results of soil testing for 37 samples collected found that levels of arsenic exceeded GAC for a residential end-use with or without private gardens in a single location. Levels of lead exceeded GAC for commercial end-use in one location, residential end-use without private gardens in two locations and human health with private gardens in six locations. Three exceedances of coal tar above residential GAC without private gardens were also identified. Asbestos was detected in eight samples across the Site, however this was quantified at levels less than 0.1%.

Soil sampling and testing indicated that overall contamination across the Site did not represent an unacceptable risk to human health, regardless of the end use scenario.

Groundwater results

Groundwater samples from the River Terrace Gravel Formation shallow aquifer were tested for metals, ammoniacal nitrogen, nitrate, phosphate, sulphate, VOCs and SVOCs, TPH and pH. The results were contrasted against UK Drinking Water Standards (DWS), or Environmental Quality Standards (EQS).

During recovery of groundwater samples, no measurable free phase product, oily sheen or staining was observed and no hydrocarbon odours or significantly elevated PID readings were detected. Groundwater results found some elevated levels of metals above DWS and EQS. Three samples contained elevations of TPH, and a single sample contained phenol above EQS. The average ammoniacal nitrogen concentration from groundwater samples marginally exceeded the DWS. However, the measured concentrations were variable and in many cases were only slightly above GAC.

Ground gas and vapour monitoring

Aecom did not undertake any ground gas or vapour monitoring at the installed monitoring wells, as this was not within the scope of their investigation.

The report concluded that soils and groundwater at the Site did not contain contaminant concentrations that represented a significant environmental risk to human health or controlled waters. No environmental improvement works were considered necessary at the Site.

Stag Brewery, Mortlake: Groundwater Sampling Point Decommissioning Report

The sixteen groundwater monitoring wells drilled as part of previous investigations at the Site were decommissioned by Aecom in February 2016, as part of the closure of the brewery on-Site and surrender

of Environmental Permits. Works involved filling the entire standpipe and screened section of each well with low permeability backfill (slurry) and securing the metal cover in place at the surface.

The report concluded that the sampling points had been successfully decommissioned and no pathway for any future surface contamination to reach groundwater or subsurface soils via the wells existed.

Bale Group: Tank Decommissioning Certificates

Bale Group undertook tank decommissioning and cleaning works at the Site between 2 December 2015 and 21 January 2016. The following tanks still present at the Site were drained, cleaned, degassed and tested as free of CO_2, H_2S, LEL and pH with a calibrated handheld gas detector:

East Site

- Glycol carbon filter tank in southwest corner of the Site.
- Waste oil tank 2 located outside southwestern corner of the warehouse.

West Site

- Diesel generator tank in Production Office basement.
- Diesel tank against northern boundary.
- Hydrochloric acid tank, bund and pipework at east side of Brewing Building.
- Caustic soda tank, bund and pipework at east side of Brewing Building.
- Effluent tank on raised platform in centre of northern part of the Site
- Waste oil tank 1 located against western boundary wall, approximately 3,350l capacity.

5. Hazard Assessment and Preliminary Conceptual Model

Contaminants of concern are presented within Table 9. The Preliminary Conceptual Model for the Site is presented in Table 10 and graphically in Figure 3 in Appendix A. The risk rating included in Table 10 has been assessed qualitatively using the criteria given in Appendix D and the potential receptors identified using the criteria given in Appendix E.

5.1 Contaminants of Concern

Contaminants of concern identified above are summarised in Table 9.

Table 9: Contaminants of Concern

Source	Associated Contaminants
On-Site (current)	
Electrical substations	Metals, PCBs
On-Site (historic)	
Brewery	Diesel, waste oil, lubricant oils, hydrochloric acid, caustic soda, slurry, asbestos
Off-Site (current)	
Garages and petrol filling stations	Metals and metalloids, fuels, TPH, PAH, organic solvents, asbestos
Off-Site (historic)	
Landfill	Clinker, brick, slate, pottery, mortar, wood, chert, concrete, metal, glass, flint, asbestos, ground gas and vapours
Incinerator	Ash and clinker, metals and metalloids, glass, flint, asbestos
Smithy	Metals and metalloids, organic solvents, asbestos
Coal depot	Metals and metalloids, sulphates, sulphides, cyanides
Electricity works and electrical substations	Metals and metalloids, PCBs, bitumen, detergents, organic solvents, TPH, mineral oil, asbestos

Table 10: Preliminary Conceptual Model for the Site

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
Human Health					
Future Site Users	Contamination in Made Ground and shallow soils from on-Site and adjacent off-Site land uses. Contamination in perched groundwater, and the shallow Secondary A Aquifer in the Alluvium and Kempton Park Gravel Formation.	Dermal contact and ingestion of contaminated soils and groundwater. Ingestion of contamination via plant uptake in private gardens.	Low	The brewery has been decommissioned, with all known contamination sources removed. Therefore, it is unlikely that any contamination will arise from the remaining buildings and plant. Historically, ground contamination may have occurred during operation of the brewery. Further historical activities in the adjacent off-Site area such as the coal depot, garages and petrol filling stations, and additional electrical substations may also have led to localised ground contamination. Previous ground investigations by Dames & Moore, CRA and Aecom between 1995 and 2015 found that some organic and inorganic contamination is present in Made Ground beneath the Site, when compared against relevant assessment criteria. However, in the majority of samples targeted at potential contamination hotspots as part of the Aecom investigation, no significant contamination elevations were identified. Where elevated levels were encountered, it is not thought to represent a significant contamination risk to future Site users in either a residential or commercial end-use scenario. The use of appropriate thicknesses of imported clean topsoil in private gardens and soft landscaping at the completed development so future Site users do not directly contact ground contamination via indirect ingestion or plant uptake.	Low

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
	Ground gas arising from Made Ground and Alluvium and vapours from hydrocarbon contamination in shallow groundwater.	Accumulation in confined spaces, leading to inhalation followed by asphyxiation and risk of explosion.	Medium	Geological information for the Site from previous ground investigations suggests there is approximately 0.7m – 4.2m Made Ground and Alluvium beneath the majority of the Site, which could act as a source of ground gas at the completed development. Although previous ground investigations found that soil and groundwater samples did not indicate extensive hydrocarbon contamination at the Site, there is still the potential for it to be present within perched groundwater and the Secondary A Aquifer. Hydrocarbon contamination, if present could volatise, resulting in vapour ingress to buildings at the completed development. An intrusive ground investigation with subsequent ground gas and vapour monitoring will be undertaken. This would determine the risk posed by ground gas and vapours, and inform whether protection measures are necessary at buildings and basements at the completed development.	Low
Off-Site residents/users	Contamination in Made Ground and shallow soils.	Windborne, potentially contaminated construction dust. Runoff from stockpiled soils.	Medium	A Construction Environmental Monitoring Plane (CEMP) will be prepared for the works, including measures to minimise runoff from stockpiled soils, manage groundwater in excavations and suppress the generation of dust. Construction materials brought on-Site as part of works should be appropriately stored to prevent spills and leaks. This should prevent potentially contaminated material reaching off-Site residents or users.	Low

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
Construction Workers	Contamination in Made Ground, shallow soils, and shallow groundwater.	Dermal contact and ingestion. Ground gas and vapour Accumulation in trenches and confined spaces, leading to inhalation followed by asphyxiation and risk of explosion. Dust inhalation.	Medium	Construction workers will be provided with personal protective equipment (PPE) and respiratory protective equipment (RPE) where appropriate. Workers should be aware of good hygiene measures as protection against direct contact with contaminated Made Ground, contaminated groundwater, ground gas, vapours and dust inhalation.	Low
Property					
Future on-Site structures	Contamination in Made Ground, shallow soils, and shallow groundwater.	Direct contact with building foundations and buried services leading to chemical attack.	Medium	Geotechnical investigation as part of design works for the development should include sampling and testing of soils to assess the risk posed by chemical attack. If required, appropriately designed buried concrete and barrier water supply pipes should be used at the development.	Low
	Ground gas and vapours.	Accumulation in confined spaces, leading to risk of explosion.	Medium	The proposed intrusive ground investigation with subsequent ground gas and vapour monitoring would determine the risk posed by ground gas and vapours, and inform whether protection measures are necessary at the completed development.	Low
Off-Site structures	Contamination in Made Ground, shallow soils, and shallow groundwater.	Direct contact with building foundations and buried services leading to chemical attack.	Low	No significant contamination elevations were identified in soils and groundwater during previous investigations at the Site. Where elevated levels were encountered, it was not thought to represent a significant contamination risk.	Low

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
Ecological Receptors					
Soft landscaping	Contamination in Made Ground, shallow soils, and shallow groundwater.	Direct contact of roots.	Low	All soft landscaping at the completed development would be situated in an appropriate thickness of imported, certified clean cover material. This would prevent plants at the completed development contacting any ground contamination beneath the Site.	Low
River Thames ecology	Contamination in Made Ground, shallow soils, and shallow groundwater.	Windborne, potentially contaminated construction dust. Runoff from stockpiled soils.	Medium	A CEMP should be prepared for the demolition and construction works on-Site, detailing measures to minimise the potential risk to controlled waters. Construction materials brought on-Site as part of works should be appropriately stored to prevent spills and leaks. This should prevent potentially contaminated material reaching the River Thames.	Low
Controlled Waters					
The River Thames	Contamination in Made Ground, shallow soils, and shallow groundwater.	Migration through granular deposits and via sewer bedding materials to the River Thames. Runoff from stockpiled soils.	Medium	Previous ground investigations found that soil and groundwater samples did not indicate extensive contamination is present beneath the Site. Therefore, the potential for contamination mobilisation is assessed as low. On-Site sewer records indicate that some areas of the Site currently drain to the Thames Water surface water sewer network, ultimately discharging to the River Thames. Measures should be undertaken during demolition and construction works to minimise runoff from stockpiled soils, and prevent contamination reaching the River Thames via Site drainage. This should prevent potentially contaminated material reaching the River Thames.	Low

Receptor	Potential Sources	Pathways	Risk	Justification / Mitigation	Residual Risk
	Construction materials stored on-Site as part of development works.	Spills to ground, and the River Thames.	Medium	A CEMP should be prepared for the demolition and construction works on-Site, detailing measures to minimise the potential risk to controlled waters. Construction materials brought on-Site as part of works should be appropriately stored to prevent spills and leaks. This should prevent potentially contaminated material reaching the River Thames.	Low
Shallow Secondary A aquifer in the Alluvium and Kempton Park Gravel Formation	Contamination in Made Ground and shallow soils.	Remobilisation of contamination by rainfall infiltration following removal of hardstanding during construction works.	Medium	The CEMP should include measures to minimise rainwater infiltration to exposed ground, or the potential for construction spills during the demolition and construction works. Rainwater infiltration via soft landscaping and private gardens is possible at the completed Development. However, this is likely to be limited as the majority of the Site will be covered by buildings and hardstanding. Previous SI for the Site found contamination in Made Ground, shallow soils is minor, meaning that there are unlikely to be significant impacts from any mobilisation.	Low
Deep Secondary A aquifers in the Lambeth Group and Thanet Formation Principal Aquifer in the Chalk Group	Contamination in shallow groundwater.	Migration via historical abstraction wells.	Medium	The Site is underlain by about 73m of London Clay Formation, which presents an impermeable barrier for the migration of contaminants to the deep Secondary A and Principal Aquifers. The proposed development will comprise mid-rise buildings, whose foundations will not penetrate this layer. Preventing downward migration of potentially contaminated shallow groundwater from the Made Ground or Kempton Park Gravel Formation. Following demolition of the current buildings on-Site, the redundant historical abstraction wells should be located and decommissioned to remove the pathway to the Principal Aquifer in the Chalk Group	Low

6. Conclusions

Given the proposed end use the overall risk rating for the Site is assessed as **Medium**.

Potential Risks

The potential pollutant linkages identified for the Site as follows:

- Potential for ground gas and vapour ingress into the buildings of the proposed redevelopment from Made Ground, Alluvium and hydrocarbon contamination within shallow groundwater;
- Potential exposure of construction workers and the general public during the Works to contaminated soils, groundwater, airborne dust, ground gases and vapours;
- Potential to encounter UXO during the Works;
- Potential contamination of shallow groundwater from the release of existing contamination in soil and introduction of new potential sources of contamination during the Works;
- Potential mobilisation of contamination via historical abstraction wells, leading into the Chalk Group Principal aquifer;
- Potential contamination of shallow groundwater and the River Thames from the release of existing contamination (for example, via surface run-off from stockpiled materials, via the drainage system discharging to the River Thames, or mobilisation of ground contamination by rainfall infiltration after removal of hardstanding during demolition), and introduction of new sources of contamination during the Works;
- Potential exposure of future occupants and visitors of the proposed redevelopment to residual ground contamination via soft landscaping, and to ground gas and vapour accumulation; and
- Potential exposure of buried structures and services to ground and groundwater contamination, leading to chemical attack.

The recommendations of this report outline preliminary remedial and mitigation measures that require confirmation through additional works. However, once successfully implemented the risks are anticipated to be **Low**. Therefore the NPPF requirement that on completion the Site can no longer be captured under the Part IIA regime is expected to be met.

7. Recommendations

The following actions are recommended to address the potentially unacceptable risks identified:

- Geoenvironmental investigation for the design of the development, including:
  - Installation of ground gas and vapour monitoring wells targeting the Made Ground, Alluvium and Kempton Park Gravel Formation;
  - Sampling and testing of shallow groundwater for contamination identified by previous ground investigations, and to assess the risk of chemical attack to buried structures;
  - Six ground gas and vapour monitoring visits at the installed wells over a period of three months;
  - Sampling of soils for contamination identified by previous ground investigations, and for preliminary waste classification purposes;
- An environment watching brief should be undertaken throughout ground works and additional environmental sampling should be undertaken where visual or olfactory contamination is suspected within the Made Ground and Kempton Park Gravel Formation.
- A detailed UXO desk study should be undertaken by a suitably qualified Explosive Ordnance Disposal (EOD) Engineer to assess the risk posed by UXO beneath the Site. The recommendations of this assessment should be followed during construction works;
- A Construction Environmental Management Plan (CEMP) should be developed for the Site, detailing measures to minimise the potential risk to the River Thames and shallow Secondary A aquifer during the demolition and construction works;
- During the Works, appropriate measures for managing materials, chemicals and waste should be utilised. Measures should also be taken to prevent run-off from stockpiled soils reaching the River Thames, and to supress the generation of dust;
- Following removal of hardstanding across the Site post-demolition, an attempt should be made to locate the historical abstraction wells and decommission them if necessary;
- Construction workers should be provided with and use personal protective equipment (PPE), respiratory protective equipment (RPE) and informed of good hygiene measures as protection against direct contact with contaminated Made Ground, contaminated groundwater or ground gas / vapours;
- Concrete used in construction, and any new water pipes installed as part of the redevelopment works should be appropriately protected against chemical attack from potential contamination in Made Ground, shallow soils and shallow groundwater underlying the Site;
- The results of the ground gas and vapour monitoring should be used to inform the design of any gas protection measures necessary within buildings at the completed development; and
- Private gardens at the Development should be planted using an appropriate thickness of imported, certified clean cover material.

GLOSSARY

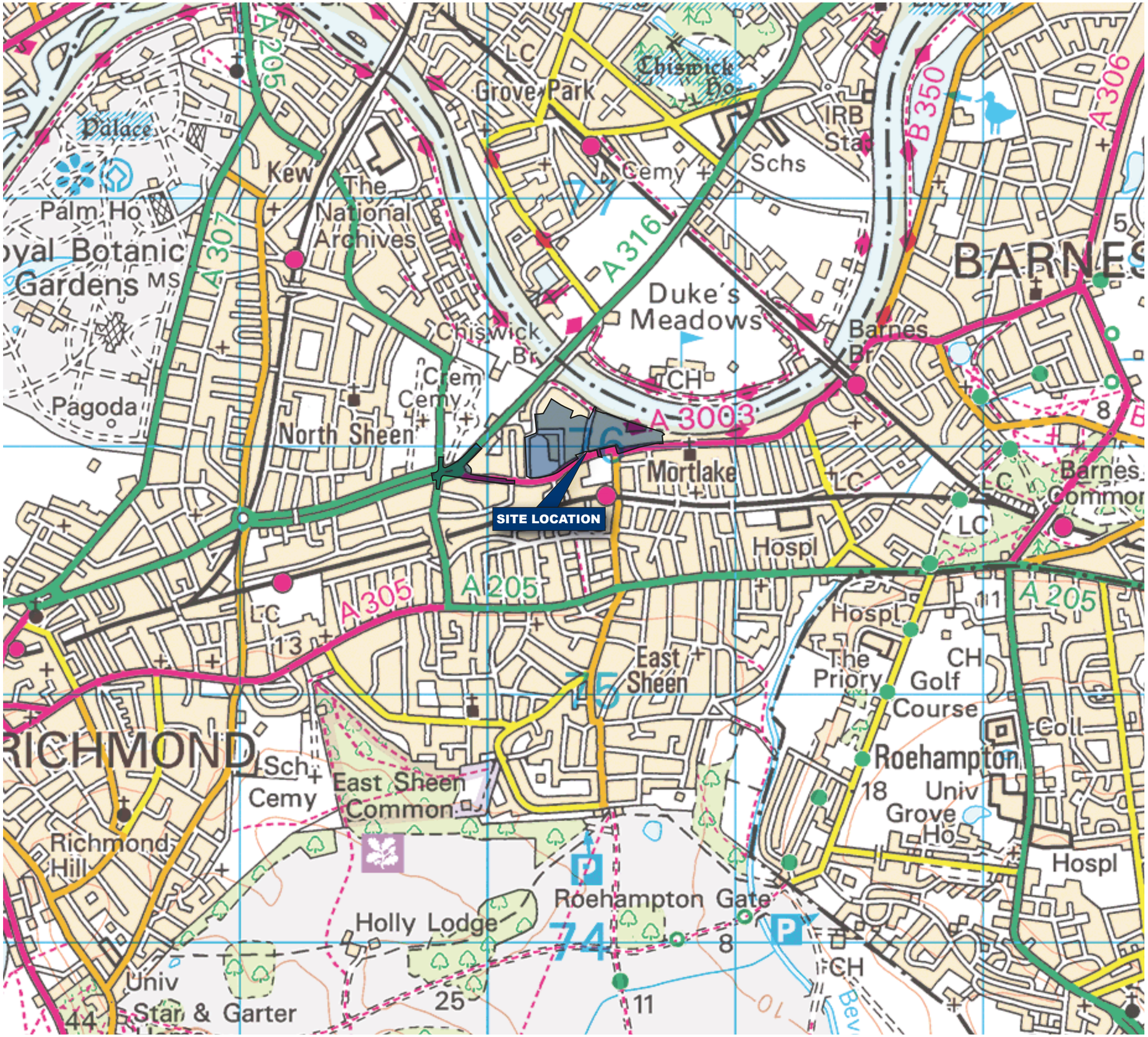
For the purpose of this report, the following terms and definitions apply (see BS 10175:2001).

Accuracy	Level of agreement between true value and observed value.
Conceptual Exposure model	Textual and or schematic hypothesis of the nature and sources of contamination, potential migration pathways (including description of the ground and groundwater) and potential receptors, developed on the basis of the information from the preliminary investigation and refined during subsequent phases of investigation and which is an essential part of the risk assessment process. **Note 1:** The conceptual exposure model is initially derived from the information obtained by the preliminary investigation. This conceptual model is used to focus subsequent investigations, where these are considered to be necessary, in order to meet the objectives of the investigations and the risk assessment. The results of the field investigation can provide additional data that can be used to further refine the conceptual model.
Contamination	Presence of a substance which is in, on or under land, and which has the potential to cause significant harm or to cause significant pollution of controlled water. **Note 1:** There is no assumption in this definition that harm results from the presence of the contamination. **Note 2:** Naturally enhanced concentrations of harmful substances can fall within this definition of contamination. **Note 3:** Contamination may relate to soils, groundwater or ground gas.
Controlled water	Inland freshwater (any lake, pond or watercourse above the freshwater limit), water contained in underground strata and any coastal water between the limit of highest tide or the freshwater line to the three mile limit of territorial waters. **Note 1:** See Section 104 of The Water Resources Act 1991.
Harm	Adverse effect on the health of living organisms, or other interference with ecological systems of which they form part, and, in the case humans, including property.
Hazard	Inherently dangerous quality of a substance, procedure or event.
Pathway	Mechanism or route by which a contaminant comes into contact with, or otherwise affects, a receptor.
Precision	Level of agreement within a series of measurements of a parameter.
Receptor	Persons, living organisms, ecological systems, controlled water, atmosphere, structures and utilities that could be adversely affected by the contaminant(s).
Risk	Probability of the occurrence, magnitude and consequences of an unwanted adverse effect on a receptor.
Risk assessment	Process of establishing, to the extent possible, the existence, nature and significance of risk.
Sampling	Methods and techniques used to obtain a representative sample of the material under investigation.
Soil	Upper layer of the earth's crust composed of mineral parts, organic substance, water, air and living matter. **Note 1:** In accordance with BS 10175:2001 the term soil has the meaning ascribed to it through general use in civil engineering and includes topsoil and subsoil; deposits such as clays, silt, sand, gravel, cobbles, boulders and organic deposits such as peat; and material of natural or human origin (e.g. fills and deposited wastes). The term embraces all components of soil, including mineral matter, organic matter, soil gas and moisture, and living organisms.
Source	Location from which contamination is, or was, derived. **Note 1:** This could be the location of the highest soil or groundwater concentration of the contaminant(s).
Uncertainty	Parameter, associated with the result of a measurement that characterizes the dispersion of the values that could reasonably be attributed to the measurement.

APPENDICES

Appendix A Site Plans

- **Site Location Plan**
- **Site Plan**
- **Conceptual Model**



Project Details	WIE10667-101: Stag Brewery, Mortlake
Figure Title	Figure A1: Site Location Plan
Figure Ref	WIE10667-101_GR_PERA_A1A
Date	2018
File Location	\\s-lncs\wiel\projects\wie10667\101\graphics\pera\issued figures

PROPAGATION TANK
MAINTENANCE BUILDING
MAINTENANCE BUILDING
EFFLUENT TANK
DIESEL TANK
CAR PARK
MALTING BUILDING
CHEMICAL STORAGE CONTAINERS
CHEMICAL STORAGE CONTAINERS AND WASTE OIL TANK 1
HYDROCHLORIC ACID, CAUSTIC SODA AND LCT TANKS
CHEMICAL STORAGE CONTAINER
FINISHING BUILDING
BOTTLING WAREHOUSE
WASTE YEAST
FILTRATION BUILDING
POWERHOUSE
WASTE OIL TANK
CHEMICAL STORAGE CONTAINERS
BREWHOUSE
SALT TANK
GLYCOL CARBON FILTER TANK
CAUSTIC SODA TANK
BREWHOUSE
HYDROCHLORIC ACID TANK
THE (FORMER) HOTEL
THE (FORMER) BOTTLING HALL
PLAYING FIELD
CLUB HOUSE
PRODUCTION OFFICE
MORTLAKE
WILLIAMS LANE
SHIP LANE
LOWER RICHMOND ROAD
Leyden House
Shingle
Site Boundary
N

Project Details	WIE10667-101: Stag Brewery, Mortlake
Figure Title	Figure A2: Site Plan
Figure Ref	WIE10667-101_GR_PERA_A2A
Date	2018
File Location	\\s-lncs\wiel\projects\wie10667\101\graphics\pera\issued figures

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SITE EXTENT

CONSTRUCTION WORKERS IN TRENCHES USING APPROPRIATE PPE / RPE

PERCHED GROUNDWATER

GROUND GAS AND VAPOUR PROTECTION MEASURES IN BUILDINGS INFORMED BY SITE INVESTIGATION

CLEAN IMPORTED TOPSOIL PREVENTS FUTURE SITE USERS CONTACTING CONTAMINATION VIA PLANT UPTAKE

CONSTRUCTION MATERIALS AND SOILS APPROPRIATELY STORED TO PREVENT CONTAMINATION REACHING SURFACE DRAINAGE RUNNING TO THE RIVER THAMES

BUILDING FOUNDATIONS APPROPRIATELY PROTECTED AGAINST CHEMICAL ATTACK

WINDBOURNE DUST PRVENTED BY DUST SUPRESSION

SOILS STOCKPILED DURING CONSTRUCTION WORKS

RIVER THAMES

RUN-OFF PROVENTED BY APPROPRIATE CONSTRUCTION TECHNIQUES

BASEMENT WILL REMOVE CONTAMINANTS IN THE MADE GROUND - REDUCING THE CONTAMINANT LOADING ON-SITE

SECONDARY AQUIFER

PILES WILL NOT PENETRATE THE LONDON CLAY FORMATION

HISTORICAL ABSTRACTION WELL SEALED TO PREVENT GROUNDWATER MIGRATION

MADE GROUND

ALLUVIUM AND RIVER TERRACE DEPOSITS

LONDON CLAY FORMATION

Project Details	WIE10667-101: Stag Brewery, Mortlake
Figure Title	Figure A3: Conceptual Site Model
Figure Ref	WIE10667-101_GR_PERA_A3A
Date	2018
File Location	\\s-lncs\wiel\projects\wie10667\101\graphics\pera\issued figures

Appendix B Site Photographs

- **Plates 1 - 27 (4 Pages)**

Air conditioners at Energy Centre roof

Bar and staff canteen

Brewery infrastructure in Brewhouse

Brewing vats in Brewhouse

Canteen cellar

Chemical stores at Packaging Warehouse

Condition of tank sumps

Decommissioned diesel tank in Production Office basement

Project Details	WIE10667-101: Stag Brewery, Mortlake
Figure Title	Figure B1: Site Photographs
Figure Ref	WIE10667-101_GR_PERA_B1A
Date	2016
File Location	\\s-lncs\wiel\projects\wie10667\101\graphics\pera\issued figures

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Effluent tank

Electrical infrastructure within Energy Centre

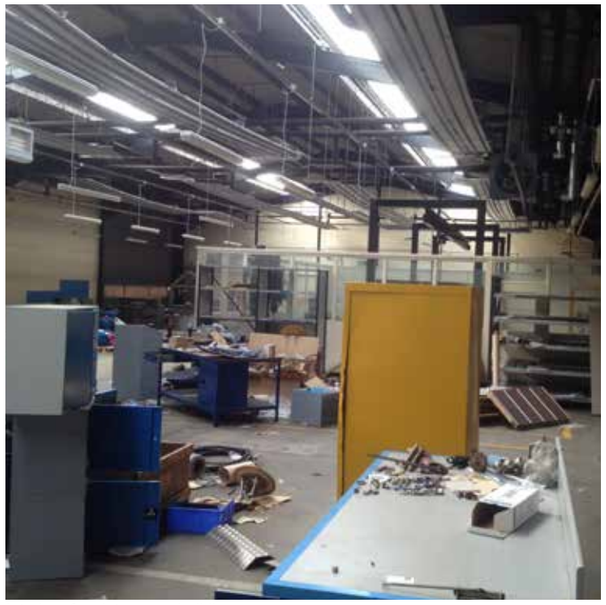
Energy Centre

Foliage and track between Site bouindary and the Thames

Gas cylinder stores at Finishing Building

HCl, caustic soda and LCT tanks at maintenance building

Hydrochloric acid, caustic soda, salt and water tanks adjacent to Brewhouse



Interior of maintenance building

Project Details	WIE10667-101: Stag Brewery, Mortlake
Figure Title	Figure B2: Site Photographs
Figure Ref	WIE10667-101_GR_PERA_B2A
Date	2016
File Location	\\s-lncs\wiel\projects\wie10667\101\graphics\pera\issued figures

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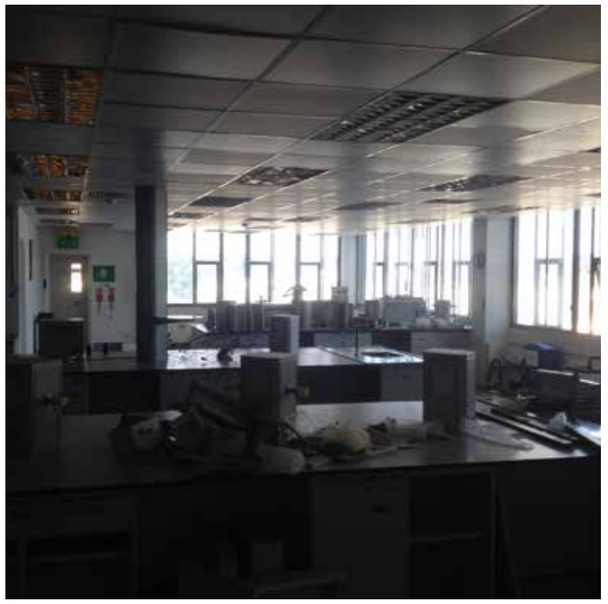
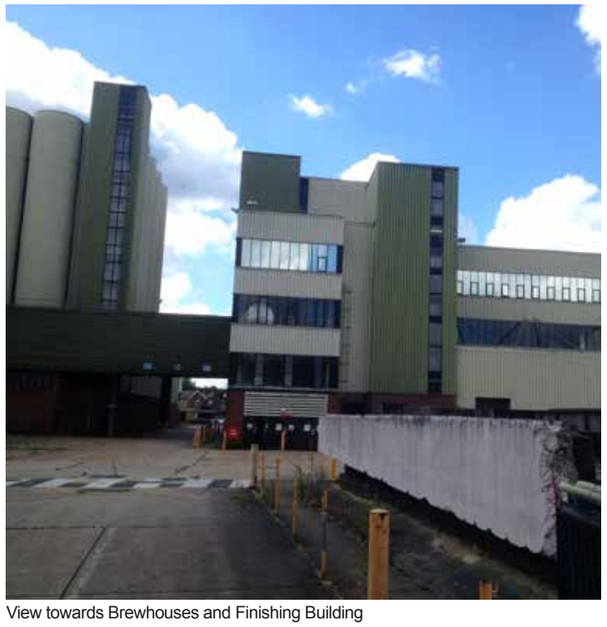
Interior of the Packaging Warehouse

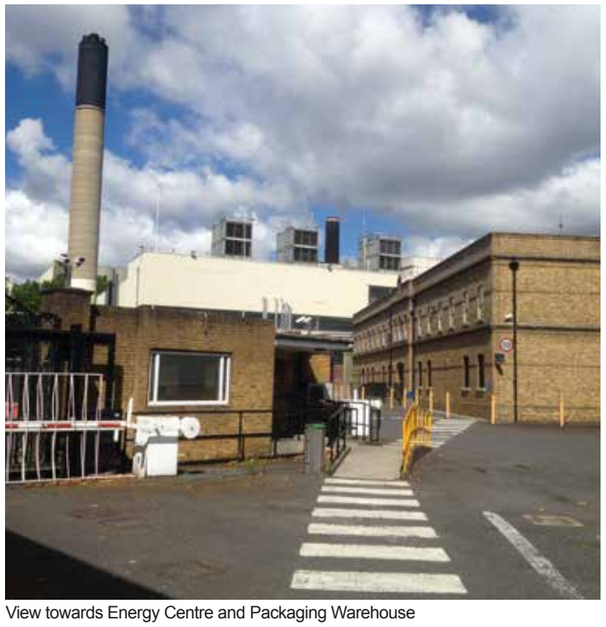

Malthouse building


Playing field


Product testing laboratory


Site boundary adjacent to the Thames


View towards Brewhouses and Finishing Building


View towards Energy Centre and Packaging Warehouse

Waste oil tank at Packaging Warehouse

Project Details	WIE10667-101: Stag Brewery, Mortlake
Figure Title	Figure B3: Site Photographs
Figure Ref	WIE10667-101_GR_PERA_B3A
Date	2016
File Location	\\s-lncs\wiel\projects\wie10667\101\graphics\pera\issued figures

Waste yeast tank and chemical stores

Water tanks and pumps in Production Office basement

Diesel tank in Packaging Warehouse yard

Project Details	WIE10667-101: Stag Brewer, Mortlake
Figure Title	Figure B4: Site Photographs
Figure Ref	WIE10667-101_GR_PERA_B4A
Date	2016
File Location	\\s-lncs\wiel\projects\wie10667\101\graphics\pera\issued figures

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Appendix C Consultation Information

- **Landmark Technical Report**
- **Response from Environmental Health Department**
- **Preliminary Unexploded Ordnance Risk Assessment report**

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
89303208_1_1

Customer Reference:
WIE10667-100

National Grid Reference:
520360, 175990

Slice:
A

Site Area (Ha):
8.56

Search Buffer (m):
1000

Site Details:

Site at
Mortlake
Richmond upon Thames

Client Details:

Mr J Coates
Waterman Infrastructure & Environment Ltd
Clink Street
Pickfords Wharf
London
SE1 9DG

Contents

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination.
For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Copyright Notice

Natural England Copyright Notice

Ove Arup Copyright Notice

Peter Brett Associates Copyright Notice

Radon Potential dataset Copyright Notice

Report Version v50.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		2	1	14
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 5	1			
Integrated Pollution Prevention And Control	pg 5	4			6
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 8		3	2	6
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 9		Yes		
Pollution Incidents to Controlled Waters	pg 10		3	1	5
Prosecutions Relating to Authorised Processes	pg 11				1
Registered Radioactive Substances					
River Quality	pg 11				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 11				2
Water Abstractions	pg 12		1		1 (*8)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 14	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 14	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 15	Yes	Yes	n/a	n/a
Areas Benefiting from Flood Defences	pg 16	Yes	Yes	n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences	pg 17	Yes	Yes	n/a	n/a
Detailed River Network Lines	pg 17	Yes	Yes		n/a
Detailed River Network Offline Drainage					n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 19		2	3	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 20			1	1
Local Authority Landfill Coverage	pg 20	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 20		1	2	
Potentially Infilled Land (Water)	pg 20		1		2
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 21				4
Registered Waste Treatment or Disposal Sites	pg 22		1		
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 23	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry					
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry	pg 23		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 26	Yes			
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 27		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 29	1	18	49	107
Fuel Station Entries	pg 43		2	1	3
Points of Interest - Commercial Services	pg 44		11	12	24
Points of Interest - Education and Health	pg 48			1	2
Points of Interest - Manufacturing and Production	pg 48	6	2	8	13
Points of Interest - Public Infrastructure	pg 51		13	14	23
Points of Interest - Recreational and Environmental	pg 55		6	1	14
Gas Pipelines					
Underground Electrical Cables	pg 57	1	11	6	18

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 61				1
Marine Nature Reserves	pg 61		1		
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 61				1
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SE (SW)	0	2	520364 175992
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SE (NW)	0	2	520350 176000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (E)	29	2	520600 175900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10NE (NW)	32	2	520250 176200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A10SW (W)	130	2	520000 175992
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A10SW (W)	132	2	520000 175950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NE)	151	2	520500 176250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NW (NE)	211	2	520650 176250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SE (E)	235	2	520900 176000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11NE (E)	431	2	521050 176200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (NW)	433	2	519950 176500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A14SW (NW)	444	2	520000 176550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A14SW (NW)	466	2	519900 176500
1	**Discharge Consents** Operator: Watney Mann (London & Home Counties) Ltd Property Type: Brewing & Malting Location: Mortlake, London Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Cplp.0059 Permit Version: 1 Effective Date: 14th September 1972 Issued Date: 14th September 1972 Revocation Date: 5th March 1991 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Saline Estuary Receiving Water: Thames **Status: Authorisation revokedRevoked** Positional Accuracy: Manually corrected supplier location	A10NE (N)	67	3	520300 176200
2	**Discharge Consents** Operator: Watney Mann Ltd Property Type: Brewing & Malting Location: Richmond Road, Mortlake, Surrey Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctmr.0305 Permit Version: 1 Effective Date: 29th June 1976 Issued Date: 29th June 1976 Revocation Date: 26th April 1990 Discharge Type: Trade Discharges - Cooling Water Discharge Environment: Saline Estuary Receiving Water: Thames **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A11NW (NE)	116	3	520500 176200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Tideway Developments Ltd In Association With Marst Property Type: Undefined Or Other Location: 121 Mortlake High Street, Mortlake, London Sw14 Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctwc.2358 Permit Version: 1 Effective Date: 5th May 1988 Issued Date: 5th May 1988 Revocation Date: 6th June 1991 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Saline Estuary Receiving Water: River Thames **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A12NW (E)	446	3	521100 176100
4	**Discharge Consents** Operator: Tideway Developments Ltd. Property Type: Car Storage/Stocking Site Location: Courtyard Carparks, Tideway Yard, Mortlake High Street, Mortlake, London Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CTWC.2359 Permit Version: 1 Effective Date: 5th May 1988 Issued Date: 5th May 1988 Revocation Date: 18th June 2010 Discharge Type: Discharge Of Other Matter-Surface Water Discharge Environment: Saline Estuary Receiving Water: River Thames Tidal **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A12NW (E)	545	3	521200 176100
5	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewage Disposal Works - Water Company Location: Kew Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2698 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 13th October 2015 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Saline Estuary Receiving Water: Tidal Thames **Status: Surrendered under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A14NW (NW)	763	3	519800 176800
5	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewage Disposal Works - Water Company Location: Kew Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2698 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Saline Estuary Receiving Water: Tidal Thames **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A14NW (NW)	763	3	519800 176800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	**Discharge Consents** Operator: Thames Water Utilities Limited. Property Type: Sewage Disposal Works - Water Company Location: Kew Stw, Westhall Rd, Richmond,Surrey Authority: Environment Agency, Thames Region Catchment Area: Not Given Reference: CSSA.0361 Permit Version: 1 Effective Date: 31st January 1985 Issued Date: 21st March 1978 Revocation Date: 27th January 2003 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Saline Estuary Receiving Water: Thames **Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A14NW (NW)	763	3	519800 176800
6	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Barnes Storm Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2377 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: 13th October 2015 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Saline Estuary Receiving Water: Tideway **Status: Surrendered under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A16SW (NE)	834	3	521390 176420
6	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Barnes Storm Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2377 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Saline Estuary Receiving Water: Tideway **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 10m	A16SW (NE)	834	3	521390 176420
7	**Discharge Consents** Operator: Surrey Steel Components Ltd Property Type: Iron & Steel Industries Location: 26 Priests Bridge, Richmond, London Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctmr.0268 Permit Version: 1 Effective Date: 1st November 1976 Issued Date: 1st November 1976 Revocation Date: 7th September 1992 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: (Beverley Brook) **Status: Authorisation revokedRevoked** Positional Accuracy: Manually corrected supplier location	A8NW (SE)	881	3	521400 175500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	**Discharge Consents** Operator: Surrey Steel Components, Richmond, Surrey Property Type: Other Vehicles Location: Priests Bridge Garage, Mortlake, London Sw14 Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Ctcu.0590 Permit Version: 1 Effective Date: 14th February 1972 Issued Date: 14th February 1972 Revocation Date: 7th September 1992 Discharge Type: Trade Effluent Discharge Environment: Land/Soakaway Receiving Water: Gravel Strata **Status: Authorisation revokedRevoked** Positional Accuracy: Located by supplier to within 100m	A8NE (E)	920	3	521500 175600
9	**Discharge Consents** Operator: Thames Water Utilities Limited. Property Type: Sewerage Network - Pumping Station - Water Company Location: Kew Ps, West Hall Road, Kew Kew Transfer Pumping Station West Hall Road Kew Tw9 4eh Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Casm.0249 Permit Version: 1 Effective Date: 29th April 2002 Issued Date: 18th June 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Saline Estuary Receiving Water: Tidal River Thames **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A14NW (NW)	935	3	519800 177000
9	**Discharge Consents** Operator: Thames Water Utilities Limited. Property Type: Sewerage Network - Pumping Station - Water Company Location: Kew Ps, West Hall Road, Kew Kew Transfer Pumping Station West Hall Road Kew Tw9 4eh Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Casm.0249 Permit Version: 1 Effective Date: 29th April 2002 Issued Date: 18th June 2002 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Saline Estuary Receiving Water: Tidal River Thames **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A14NW (NW)	935	3	519800 177000
10	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Priory Lane Storm, Mortlakepriory Lane Stormmortlake Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2837 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Beverley Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	956	3	521500 175520

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Priory Lane Storm, Mortlakepriory Lane Stormmortlake Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2837 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Beverley Brook **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	956	3	521500 175520
10	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Upper Richmond Road, Priests Bridgeupper Richmond Roadpriests Bridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2982 Permit Version: 2 Effective Date: 3rd September 2010 Issued Date: 3rd September 2010 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Beverley Broook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	966	3	521500 175500
10	**Discharge Consents** Operator: Thames Water Utilities Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Upper Richmond Road, Priests Bridgeupper Richmond Roadpriests Bridge Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.2982 Permit Version: 1 Effective Date: 2nd November 1989 Issued Date: 2nd November 1989 Revocation Date: 2nd September 2010 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Beverley Broook **Status: Temporary Consents (Water Act 1989, Section 113)** Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	966	3	521500 175500
11	**Integrated Pollution Controls** Name: Scottish And Newcastle Uk Ltd Location: The Stag Brewery, Mortlake, LONDON, SW14 7ET Authority: Environment Agency, Thames Region Permit Reference: AF4275 Dated: 12th February 1993 Process Type: IPC new application Description: 1.3 A (A) Combustion processes within the Fuel & Power Industry **Status: Authorisation revokedRevoked** Positional Accuracy: Automatically positioned to the address	A11SW (E)	0	3	520638 175985
12	**Integrated Pollution Prevention And Control** Name: Budweiser Stag Brewing Co Ltd Location: Budweiser Stag Brewing Company Ltd, The Stag Brewery, Mortlake,,, LONDON, SW14 7ET Authority: Environment Agency - South East Region, West Thames Area Permit Reference: BS9784IK Original Permit Ref: Bs9784ik Effective Date: 9th November 2005 **Status: Effective** Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 6.8 A(1) (D) (II) Activity Description: Animal, Vegetable & Food; Treating Etc. Vegetable Raw Materials For Food Greater Than 300T/Day Primary Activity: Y	A11SW (E)	0	3	520536 175957

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	**Integrated Pollution Prevention And Control** Name: Budweiser Stag Brewing Co Ltd Location: The Stag Brewery Epr/Bs9784ik, The Stag Brewery, Mortlake,,, LONDON, SW14 7ET Authority: Environment Agency - South East Region, Kent & South London Area Permit Reference: BS9784IK Original Permit Ref: Bs9784ik Effective Date: 9th November 2005 **Status:** **Effective** Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 6.8 A(1) (D) (II) Activity Description: Animal, Vegetable & Food; Treating Etc. Vegetable Raw Materials For Food Greater Than 300T/Day Primary Activity: Y	A11SW (E)	0	3	520536 175957
12	**Integrated Pollution Prevention And Control** Name: Budweiser Stag Brewing Co Ltd Location: Budweiser Stag Brewing Company Ltd, The Stag Brewery, Mortlake,,, LONDON, SW14 7ET Authority: Environment Agency, Thames Region Permit Reference: Bs9784ik Original Permit Ref: Bs9784ik Effective Date: 9th November 2005 **Status:** **Effective** Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 6.8 A(1) (D) (II) Activity Description: Animal, Vegetable & Food; Treating Etc. Vegetable Raw Materials For Food Greater Than 300T/Day Primary Activity: Y	A11SW (E)	0	3	520536 175957
12	**Integrated Pollution Prevention And Control** Name: Budweiser Stag Brewing Company Limited Location: The Stag Brewery Epr/Bs9784ik, The Stag Brewery, Mortlake,,, LONDON, SW14 7ET Authority: Environment Agency - South East Region, Kent & South London Area Permit Reference: FP3037RD Original Permit Ref: Bs9784ik Effective Date: Not Supplied **Status:** **Valid** Application Type: Surrender App. Sub Type: Whole Positional Accuracy: Located by supplier to within 10m Activity Code: 6.8 A(1) d) ii Activity Description: Animal vegetable and food treating etc vegetable Primary Activity: Y	A11SW (E)	0	3	520530 175950
13	**Integrated Pollution Prevention And Control** Name: Thames Water Utilities Ltd Location: Kew Biothane Plant, Kew Biothane Plant, Melliss Avenue,,, RICHMOND, Surrey, TW9 4AB Authority: Environment Agency, Thames Region Permit Reference: BP3231ML Original Permit Ref: Bx7738ir Effective Date: 19th August 2008 **Status:** **Effective** Application Type: Variation App. Sub Type: Standard Positional Accuracy: Manually positioned to the address or location Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A14NW (NW)	895	3	519756 176929

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Integrated Pollution Prevention And Control** Name: Thames Water Utilities Limited Location: Kew Biothane Plant, Kew Biothane Plant, Melliss Avenue,,, RICHMOND, Surrey, TW9 4AB Authority: Environment Agency - South East Region, Kent & South London Area Permit Reference: WP3633VY Original Permit Ref: Bx7738ir Effective Date: 11th February 2014 **Status: Effective** Application Type: Variation App. Sub Type: Minor Positional Accuracy: Located by supplier to within 10m Activity Code: 5.4 A(1) a) (i) Activity Description: DISPOSAL OF > 50 T/D NON-HAZARDOUS WASTE (> 100 T/D IF ONLY AD) INVOLVING BIOLOGICAL TREATMENT Primary Activity: Y Activity Code: 0.0 Associated Process Activity Description: Associated Process Primary Activity: N	A14NW (NW)	918	3	519730 176940
13	**Integrated Pollution Prevention And Control** Name: Thames Water Utilities Ltd Location: Kew Biothane Plant, Kew Biothane Plant, Melliss Avenue,,, RICHMOND, Surrey, TW9 4AB Authority: Environment Agency - South East Region, West Thames Area Permit Reference: BP3231ML Original Permit Ref: Bx7738ir Effective Date: 19th August 2008 **Status: Effective** Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 10m Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A14NW (NW)	918	3	519730 176940
13	**Integrated Pollution Prevention And Control** Name: Thames Water Utilities Ltd Location: Kew Biothane Plant, Kew Biothane Plant, Melliss Avenue,,, RICHMOND, Surrey, TW9 4AB Authority: Environment Agency - South East Region, Kent & South London Area Permit Reference: BP3231ML Original Permit Ref: Bx7738ir Effective Date: 19th August 2008 **Status: Superseded By Variation** Application Type: Variation App. Sub Type: Standard Positional Accuracy: Located by supplier to within 10m Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A14NW (NW)	918	3	519730 176940
13	**Integrated Pollution Prevention And Control** Name: Thames Water Utilities Ltd Location: Kew Biothane Plant, Kew Biothane Plant, Melliss Avenue,,, RICHMOND, Surrey, TW9 4AB Authority: Environment Agency - South East Region, West Thames Area Permit Reference: BX7738IR Original Permit Ref: Bx7738ir Effective Date: 8th November 2005 **Status: Superseded By Variation** Application Type: Application App. Sub Type: New Positional Accuracy: Located by supplier to within 10m Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A14NW (NW)	918	3	519730 176940

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Integrated Pollution Prevention And Control** Name: Thames Water Utilities Ltd Location: Kew Biothane Plant, Melliss Avenue,,, RICHMOND, Surrey, TW9 4AB Authority: Environment Agency, Thames Region Permit Reference: Bx7738ir Original Permit Ref: Bx7738ir Effective Date: 8th November 2005 **Status:** **Superseded By Variation** Application Type: Application App. Sub Type: New Positional Accuracy: Approximate location provided by supplier Activity Code: 5.3 A(1) (C) (I) Activity Description: Other Waste Disposal; Non-Hazardous Waste >50T/D By Biological Treatment Primary Activity: Y	A14NW (NW)	918	3	519730 176940
14	**Local Authority Pollution Prevention and Controls** Name: Bm Lifestyle Location: 64 Mortlake High Street, London, Sw14 8hr Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: Not Supplied Dated: 2nd December 2014 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A11SW (E)	74	4	520729 175948
15	**Local Authority Pollution Prevention and Controls** Name: Mortlake Crematorium Location: Kew Meadow Path, RICHMOND, Surrey, TW9 4EN Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: EP/M/92/02/P1 Dated: 1st December 1992 Process Type: Local Authority Pollution Prevention and Control Description: PG5/2 Crematoria **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A10NW (NW)	237	4	520010 176278
16	**Local Authority Pollution Prevention and Controls** Name: Mortlake Service Station Location: 16-26 Sheen Lane, LONDON, SW14 8LW Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: 08/PVR Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status:** **Permitted** Positional Accuracy: Automatically positioned to the address	A11SW (S)	246	4	520479 175692
17	**Local Authority Pollution Prevention and Controls** Name: Prospect Filling Station Location: 199 Lower Richmond Road, RICHMOND, Surrey, TW9 4LN Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: 14/PVR Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status:** **Authorisation revokedRevoked** Positional Accuracy: Automatically positioned to the address	A9SE (W)	462	4	519675 175811
18	**Local Authority Pollution Prevention and Controls** Name: Express Dry Cleaners Location: 282 Upper Richmond Road West, East Sheen, Sw14 7je Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/10 Dated: 1st April 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	496	4	520409 175386

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	**Local Authority Pollution Prevention and Controls** Name: Royal Dry Cleaners Location: 455 Upper Richmond Road West, London, Sw14 7pr Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/26 Dated: 11th May 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A6SE (S)	530	4	520191 175306
20	**Local Authority Pollution Prevention and Controls** Name: East Sheen Service Station Location: 567 Upper Richmond Road West, LONDON, SW14 7ED Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: 12/PVR Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status:** **Permitted** Positional Accuracy: Automatically positioned to the address	A5SE (SW)	675	4	519716 175312
21	**Local Authority Pollution Prevention and Controls** Name: Hamlyns Location: 197 Upper Richmond Road West, East Sheen, London, Sw14 8qt Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/11 Dated: 1st April 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A7NE (SE)	678	4	520897 175345
22	**Local Authority Pollution Prevention and Controls** Name: Richmond Service Station Location: 22-24 Popham Gardens, Lower Richmond Road, RICHMOND, Surrey, TW9 4LJ Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: 05/PVR Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status:** **Permitted** Positional Accuracy: Automatically positioned to the address	A9SW (W)	810	4	519332 175744
23	**Local Authority Pollution Prevention and Controls** Name: Richmond Motor Centre (Esso) Location: 293 Lower Richmond Road, RICHMOND, Surrey, TW9 4LU Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: 11/PVR Dated: 31st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status:** **Authorisation revokedRevoked** Positional Accuracy: Manually positioned to the address or location	A9SW (W)	852	4	519298 175687
24	**Local Authority Pollution Prevention and Controls** Name: White Hart Dry Cleaners Location: 155 White Hart Lane, Twickenham, Sw13 0jp Authority: London Borough of Richmond upon Thames, Environmental Health Department Permit Reference: LBRUT/DC/32 Dated: 1st April 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning **Status:** **Permitted** Positional Accuracy: Manually positioned to the address or location	A8NE (E)	894	4	521461 175580
	Nearest Surface Water Feature	A11NW (NE)	6	-	520437 176107

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Stag Brewery, MORTLAKE Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Not Supplied Incident Date: Not Supplied Incident Reference: SE960162 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A10NE (N)	67	3	520300 176200
26	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ship Lane Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: No Incident Date: Not Supplied Incident Reference: SE940201 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A11NW (N)	83	3	520400 176195
26	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Ship Lane, MORTLAKE Authority: Environment Agency, Thames Region Pollutant: Chemicals - Unknown Note: Confirmed As A Pollution Incident Incident Date: 22nd May 1989 Incident Reference: SE890171 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A11NW (N)	88	3	520400 176200
27	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Mortlake Road Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 9th May 1995 Incident Reference: SE950202 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14SW (NW)	475	3	519800 176400
28	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: BARNES Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 24th June 1990 Incident Reference: SE900180 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A12NW (E)	699	3	521300 176300
29	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Kew Stw Authority: Environment Agency, Thames Region Pollutant: Unknown Sewage Note: Confirmed As A Pollution Incident Incident Date: 19th April 1990 Incident Reference: SE900109 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NW)	759	3	519800 176795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
30	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Kew Stw Authority: Environment Agency, Thames Region Pollutant: Oils - Unknown Note: Confirmed As A Pollution Incident Incident Date: 31st October 1994 Incident Reference: SE940361 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NW)	935	3	519800 177000
31	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Brookwood Avenue Authority: Environment Agency, Thames Region Pollutant: Miscellaneous - Unknown Note: Confirmed As A Pollution Incident Incident Date: 7th June 1992 Incident Reference: SE920198 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	939	3	521480 175520
32	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: Upper Richmond Road, PUTNEY Authority: Environment Agency, Thames Region Pollutant: General Note: Confirmed incident Incident Date: 18th April 1999 Incident Reference: THSE1999042657 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	992	3	521500 175450
33	**Prosecutions Relating to Authorised Processes** Location: Townmeead Road, Richmond, LONDON, TW9 4EL Prosecution Text: Flytipping Incident Involving A Dumped Washing Machine & Household Waste Occurred Outside The Station Prosecution Act: Epa90 S71(2) Hearing Date: Not Supplied Verdict: Guilty Fine: 200 Costs: 200 Positional Accuracy: Manually positioned to the address or location	A14SW (NW)	520	3	519836 176510
	River Quality Name: Beverley Bk GQA Grade: River Quality E Reach: Pyl Bk - Tideway Estimated Distance (km): 9.9 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A8SW (SE)	955	3	521225 175190
34	**Substantiated Pollution Incident Register** Authority: Environment Agency - Thames Region, South East Area Incident Date: 15th July 2001 Incident Reference: 85345 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 10m Pollutant: General Biodegradable : Other	A14SW (NW)	509	3	519897 176555
35	**Substantiated Pollution Incident Register** Authority: Environment Agency - Thames Region, North East Area Incident Date: 8th June 2006 Incident Reference: 405308 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Oils - Diesel (Including Agricultural)	A14NE (N)	510	3	520212 176678

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	**Water Abstractions** Operator: D & D Leisure Sports Ltd Licence Number: 28/39/39/0180 Permit Version: 100 Location: Dukes Meadow Golf Club, London - Borehole Authority: Environment Agency, Thames Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 55 Yearly Rate (m3): 8000 Details: Dukes Meadow Golf Club, Great Chertsey Road, London, W4 Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A11NW (N)	228	3	520500 176320
37	**Water Abstractions** Operator: Riverside Racquets Club Ltd Licence Number: 28/39/39/0174 Permit Version: 100 Location: Dukes Meadow, Chiswick - Borehole Authority: Environment Agency, Thames Region Abstraction: Sports Grounds/Facilities: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 60 Yearly Rate (m3): 6000 Details: Land At Dukes Meadow, Chiswick, London Authorised Start: 01 April Authorised End: 31 October Permit Start Date: 8th December 1993 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A16SW (NE)	663	3	521200 176400
	Water Abstractions Operator: The Secretary Of State For Justice Licence Number: Th/039/0035/002 Permit Version: 1 Location: Well 2 At The National Archives, Kew, Richmond, Surrey Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd June 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	1285	3	519490 177220
	Water Abstractions Operator: The Secretary Of State For Justice Licence Number: Th/039/0035/002 Permit Version: 1 Location: Well 2 At The National Archives, Kew, Richmond, Surrey Authority: Environment Agency, Thames Region Abstraction: Amenity: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd June 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	1285	3	519490 177220

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: The Secretary Of State For Justice Licence Number: Th/039/0035/002 Permit Version: 1 Location: Well 1 At The National Archives. Kew, Richmond,Surrey Authority: Environment Agency, Thames Region Abstraction: Amenity: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd June 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	1323	3	519480 177260
	Water Abstractions Operator: The Secretary Of State For Justice Licence Number: Th/039/0035/002 Permit Version: 1 Location: Well 1 At The National Archives. Kew, Richmond,Surrey Authority: Environment Agency, Thames Region Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 23rd June 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A17SE (NW)	1323	3	519480 177260
	Water Abstractions Operator: The Chiswick House And Gardens Trust Licence Number: 28/39/39/0242 Permit Version: 2 Location: River Thames Adjacent The B0llo Brook Outfall, London, W4 Authority: Environment Agency, Thames Region Abstraction: Amenity: Lake And Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Chiswick House, Promenade Approach Rd, Chiswick, London, W4 Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 13th August 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SE (NE)	1326	3	521500 177040
	Water Abstractions Operator: The Chiswick House And Gardens Trust Licence Number: 28/39/39/0242 Permit Version: 2 Location: River Thames Adjacent The B0llo Brook Outfall, London, W4 Authority: Environment Agency, Thames Region Abstraction: Amenity: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Chiswick House, Promenade Approach Rd, Chiswick, London, W4 Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 13th August 2009 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SE (NE)	1326	3	521500 177040

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: The Chiswick House And Gardens Trust Licence Number: 28/39/39/0242 Permit Version: 1 Location: River Thames Adjacent To The Bollo Brook Outfall, London, W4 Authority: Environment Agency, Thames Region Abstraction: Amenity: Make-Up Or Top Up Water Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Chiswick House, Promenade Approach Rd, Chiswick, London, W4 Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 8th December 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SE (NE)	1362	3	521520 177070
	Water Abstractions Operator: The Chiswick House And Gardens Trust Licence Number: 28/39/39/0242 Permit Version: 1 Location: River Thames Adjacent To The Bollo Brook Outfall, London, W4 Authority: Environment Agency, Thames Region Abstraction: Amenity: Lake And Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Tidal Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Chiswick House, Promenade Approach Rd, Chiswick, London, W4 Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 8th December 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A20SE (NE)	1362	3	521520 177070
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 39 West London Scale: 1:100,000	A10SE (SW)	0	3	520364 175992
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Unproductive Strata	A10SE (SW)	0	2	520364 175992
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A10SE (SW)	0	2	520364 175992
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A10NE (N)	0	3	520395 176092
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A10SE (SW)	0	3	520364 175992
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NE)	1	3	520425 176105
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (N)	67	3	520292 176205
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (NW)	89	3	520212 176256
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A10NE (NW)	94	3	520207 176260

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NE)	124	3	520637 176162
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NE)	132	3	520677 176152
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NW (NE)	133	3	520507 176222
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (N)	195	3	520380 176305
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A11NE (E)	214	3	520877 176021
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NE (E)	214	3	520876 176021
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14SE (N)	233	3	520323 176382
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14SE (N)	244	3	520343 176386
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14SE (N)	249	3	520347 176386
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A11NW (N)	0	3	520405 176113
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A10SE (SW)	0	3	520364 175992
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A11NW (NE)	2	3	520435 176103
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NE)	2	3	520434 176103
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NW (NE)	3	3	520431 176106
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NE)	5	3	520417 176113
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A11NW (NE)	6	3	520420 176113

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (N)	59	3	520364 176159
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (N)	67	3	520292 176205
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A10NE (NW)	73	3	520253 176237
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NE)	124	3	520637 176162
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NW (NE)	132	3	520677 176152
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A11NW (NE)	133	3	520507 176222
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A10NE (N)	194	3	520380 176305
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A11NE (E)	223	3	520886 176022
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A11NE (E)	224	3	520886 176021
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14SE (N)	230	3	520322 176382
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14SE (N)	234	3	520304 176389
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Tidal Models Boundary Accuracy: As Supplied	A14SE (N)	244	3	520343 176386
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A14SE (N)	249	3	520347 176386
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A10SE (SW)	0	3	520364 175992
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11NW (E)	0	3	520628 176029
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11NW (E)	0	3	520603 176025
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11SW (E)	0	3	520653 175985

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11NW (E)	49	3	520713 176005
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A10NE (NW)	100	3	520102 176178
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11NE (E)	101	3	520764 176014
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11NW (NE)	136	3	520501 176231
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11NE (E)	146	3	520809 176013
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A11NE (E)	223	3	520886 176022
	Flood Water Storage Areas None				
	Flood Defences Type: Flood Defences Reference: Not Supplied	A10NE (N)	0	3	520380 176056
	Flood Defences Type: Flood Defences Reference: Not Supplied	A11NW (NE)	136	3	520501 176231
	Flood Defences Type: Flood Defences Reference: Not Supplied	A14SE (N)	225	3	520352 176355
	Flood Defences Type: Flood Defences Reference: Not Supplied	A14SE (N)	230	3	520336 176371
	Flood Defences Type: Flood Defences Reference: Not Supplied	A14SE (N)	230	3	520336 176370
38	**Detailed River Network Lines** River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11SW (SE)	0	3	520449 175876
39	**Detailed River Network Lines** River Type: Down stream of High Water Mark River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Other Rivers Water Course Name: Not Supplied Water Course Reference: Not Supplied	A11NW (E)	17	3	520662 176031

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	**Detailed River Network Lines** River Type: Down stream of High Water Mark River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Thames (Tidal) Water Course Reference: TH00	A11NW (N)	74	3	520441 176189
41	**Detailed River Network Lines** River Type: Down stream of High Water Mark River Name: Not Supplied Hydrographic Area: D006 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Management Status: Flood Risk Management Indicative/Statutory Main River Water Course Name: Thames (Tidal) Water Course Reference: TH00	A11NW (E)	89	3	520679 176103
	Detailed River Network Offline Drainage None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
42	**Historical Landfill Sites** Licence Holder: London Borough of Hounslow Location: Great Chertsey Road, London Name: Dukes Meadow Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11115 First Input Date: 31st December 1945 Last Input Date: 31st December 1950 Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5540/0038 BGS Ref: Not Supplied Other Ref: 8HO040	A11NW (NE)	127	3	520498 176225
43	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Hartington Road Name: Hartington Road Sports Ground Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11372 First Input Date: Not Supplied Last Input Date: 31st December 1934 Specified Waste Type: Deposited Waste included Inert and Industrial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5540/0039 BGS Ref: Not Supplied Other Ref: 8HO041	A14SE (N)	233	3	520302 176388
44	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Grove Park, Chiswick, Hounslow, London Name: Ibis Rowing Club Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11114 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5540/0074 BGS Ref: Not Supplied Other Ref: 8HO063	A14SE (N)	334	3	520195 176500
45	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Grove Park, Chiswick, Hounslow, London Name: Cubitts Basin Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11113 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Inert and Industrial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5540/0041 BGS Ref: Not Supplied Other Ref: 8HO046	A14SE (N)	394	3	520220 176573
46	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Hartington Road Name: Hartington Road Sports Ground Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD11373 First Input Date: Not Supplied Last Input Date: 31st December 1935 Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 5540/0039 BGS Ref: Not Supplied Other Ref: 8HO041	A15SW (N)	419	3	520435 176532

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	**Licensed Waste Management Facilities (Locations)** Licence Number: 83208 Location: Townmead Civic Amenity Site, Townmead Road, Off Mortlake Road, Kew, Surrey, TW9 4EL Operator Name: Richmond Upon Thames London Borough Council Operator Location: Not Supplied Authority: Environment Agency - South East Region, Kent & South London Area Site Category: Household Waste Amenity Sites **Licence Status: Expired** Issued: 25th May 1994 Last Modified: 12th November 1996 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SW (NW)	484	3	519895 176520
47	**Licensed Waste Management Facilities (Locations)** Licence Number: 83209 Location: Townmead Civic Amenity Site, Townmead Road, Kew, Surrey, TW9 4EL Operator Name: Richmond Upon Thames London Borough Council Operator Location: Not Supplied Authority: Environment Agency - South East Region, Kent & South London Area Site Category: Household, Commercial And Industrial Transfer Stations **Licence Status: Modified** Issued: 5th December 1996 Last Modified: 27th July 2007 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14SW (NW)	519	3	519857 176532
	Local Authority Landfill Coverage Name: London Borough of Hounslow - Has no landfill data to supply		0	5	520441 176094
	Local Authority Landfill Coverage Name: London Borough of Richmond Upon Thames - Has no landfill data to supply		0	6	520364 175992
	Local Authority Landfill Coverage Name: London Borough of Wandsworth - Has no landfill data to supply		927	7	521316 175317
48	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A11NW (N)	193	-	520444 176301
49	**Potentially Infilled Land (Non-Water)** Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A10SW (W)	390	-	519747 175820
50	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1988	A14SE (N)	419	-	520205 176587
51	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1874	A11NW (NE)	137	-	520610 176185
52	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1899	A6SE (S)	546	-	520251 175296
53	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1873	A6SE (S)	589	-	520173 175247

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	**Registered Waste Transfer Sites** Licence Holder: L.B. of Richmond Licence Reference: T/SE/RIC054 Site Location: Townmead Road C.A.Site, Kew, RICHMOND, Surrey, TW9 4EL Operator Location: Regal House, London Road, TWICKENHAM, Middlesex, TW1 3QB Authority: Environment Agency - Thames Region, South East Area Site Category: Civic Amenity - with transfer Max Input Rate: Small (Equal to or greater than 10,000 and less than 25,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: OperationalOperational Dated: 5th December 1996 Preceded By Licence: DL250 Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Bonded Asbestos Sheeting Floor. Sweepings Food & Veg.Matter Lead/Acid Batteries Lwra Cat Bii Gen. Scrap Metal Waste Lwra Cat. A = Inert Wastes Lwra Cat. Bi Gen.Non-Putresc Max.Storage In Licence Mineral Oils Refrigeration Appliances Trees/Bushes/Garden Wastee Prohibited Waste: Clinical - As In Coll/Disp.Regs Of '88 Spec.Waste (Epa'90:S62/1996 Regs)N.O.S Waste N.O.S.	A14SW (NW)	503	3	519900 176550
54	**Registered Waste Transfer Sites** Licence Holder: L.B. of Richmond Licence Reference: DL250 Site Location: Townmead Road C.A.Site, Kew, RICHMOND, Surrey, TW9 4EL Operator Location: Regal House, London Road, Twickenham, HOUNSLOW, Middlesex, TW1 3QB Authority: Environment Agency - Thames Region, South East Area Site Category: Civic Amenity Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Record supersededSuperseded Dated: 25th May 1994 Preceded By Licence: DL250 Superseded By Licence: T/SE/RIC054 Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Lead/Acid Batteries Lwra Cat Bii Gen. Scrap Metal Some Of Lwra Cat. A = Inert Wastes Lwra Cat. Bi Gen.Non-Putresc Lwra Cat. C 'Putresc. Some Of Max.Waste Permitted By Licence Refrigeration Applainces Waste Oil Prohibited Waste: Clinical - As In Coll/Disp.Regs Of '88 Special Wastes N.O.S. Waste N.O.S.	A14SW (NW)	503	3	519900 176550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	**Registered Waste Transfer Sites** Licence Holder: L.B. of Richmond Licence Reference: DL250 Site Location: Townmead Road C.A.Site, Kew, RICHMOND, Surrey, TW9 4EL Operator Location: Regal House, London Road, Twickenham, HOUNSLOW, Middlesex, TW1 3QB Authority: Environment Agency - Thames Region, South East Area Site Category: Civic Amenity Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Record supersededSuperseded Dated: 1st February 1987 Preceded By Licence: CR/006 Superseded By Licence: DL250 Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Household + Commercial Waste L.A. Collected Waste In Emergency Waste Mineral Oil Prohibited Waste: Clinical Wastes Notifiable Wastes Special Wastes	A14SW (NW)	503	3	519900 176550
54	**Registered Waste Transfer Sites** Licence Holder: W.L.W.A. Licence Reference: CR/006 Site Location: Road Transfer Station, Townmead Road, Richmond, Surrey Operator Location: Civic Centre, Lampton Road, HOUNSLOW, Middlesex, TW3 4DN Authority: Environment Agency - Thames Region, South East Area Site Category: Transfer - Road Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Record supersededSuperseded Dated: 1st June 1977 Preceded By Licence: Not Given Superseded By Licence: DL250 Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Civic Amenity/Refuse Amenity Waste House, Com + Ind.Waste Old Vehicles/Machinery Etc Waste Oil Prohibited Waste: Clinical Wastes Difficult Waste N.O.S Notifiable Wastes N.O.S	A14SW (NW)	503	3	519900 176550
55	**Registered Waste Treatment or Disposal Sites** Licence Holder: M D & S M Sullivan t/a M Sullivan Metal Co. Licence Reference: DL500 Site Location: 9B Lower Richmond Road, MORTLAKE, London, SW14 7EZ Operator Location: 43 Ullswater Crescent, Kingston Vale, LONDON, Greater London, SW15 3RG Authority: Environment Agency - Thames Region, South East Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st November 1993 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Electric Cable & Wire Lead/Acid Batteries Max.Waste Permitted By Licence Non-Ferr. Turning/Swarf/Gran./Dust/Pow Non-Ferrous Solid/Sheet/Strip/Tube Prohibited Waste: Clinical - As In Coll/Disp.Regs Of '88 Special Wastes N.O.S. Waste N.O.S.	A10SW (W)	130	3	520000 176000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Thames Group	A10SE (SW)	0	2	520364 175992
	BGS Estimated Soil Chemistry No data available				
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520187, 175785 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 12.50 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 60.40 mg/kg Lead Measured Concentration: 163.10 mg/kg Nickel Measured Concentration: 17.70 mg/kg	A10SE (SW)	52	2	520187 175785
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520723, 176171 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 20.80 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 64.90 mg/kg Lead Measured Concentration: 995.70 mg/kg Nickel Measured Concentration: 31.00 mg/kg	A11NW (NE)	169	2	520723 176171
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520746, 175728 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 14.20 mg/kg Cadmium Measured Concentration: 0.80 mg/kg Chromium Measured Concentration: 53.30 mg/kg Lead Measured Concentration: 289.60 mg/kg Nickel Measured Concentration: 22.10 mg/kg	A11SE (SE)	267	2	520746 175728
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520407, 176435 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 19.20 mg/kg Cadmium Measured Concentration: 1.40 mg/kg Chromium Measured Concentration: 71.10 mg/kg Lead Measured Concentration: 459.80 mg/kg Nickel Measured Concentration: 31.30 mg/kg	A15SW (N)	322	2	520407 176435

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 519756, 175702 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 13.40 mg/kg Cadmium Measured Concentration: 2.50 mg/kg Chromium Measured Concentration: 92.40 mg/kg Lead Measured Concentration: 113.40 mg/kg Nickel Measured Concentration: 23.50 mg/kg	A10SW (SW)	404	2	519756 175702
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 519776, 176246 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 16.40 mg/kg Cadmium Measured Concentration: 0.80 mg/kg Chromium Measured Concentration: 57.40 mg/kg Lead Measured Concentration: 537.30 mg/kg Nickel Measured Concentration: 24.40 mg/kg	A10NW (NW)	420	2	519776 176246
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520335, 176699 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 20.40 mg/kg Cadmium Measured Concentration: 0.70 mg/kg Chromium Measured Concentration: 53.50 mg/kg Lead Measured Concentration: 525.60 mg/kg Nickel Measured Concentration: 24.50 mg/kg	A14NE (N)	542	2	520335 176699
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 521183, 175724 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 23.30 mg/kg Cadmium Measured Concentration: 1.90 mg/kg Chromium Measured Concentration: 76.70 mg/kg Lead Measured Concentration: 446.20 mg/kg Nickel Measured Concentration: 30.60 mg/kg	A12SW (E)	580	2	521183 175724
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 521198, 176250 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 19.90 mg/kg Cadmium Measured Concentration: 1.10 mg/kg Chromium Measured Concentration: 67.00 mg/kg Lead Measured Concentration: 495.50 mg/kg Nickel Measured Concentration: 33.90 mg/kg	A12NW (E)	586	2	521198 176250

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520195, 175186 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 18.20 mg/kg Cadmium Measured Concentration: 7.20 mg/kg Chromium Measured Concentration: 107.50 mg/kg Lead Measured Concentration: 640.00 mg/kg Nickel Measured Concentration: 43.80 mg/kg	A6SE (S)	650	2	520195 175186
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 519730, 176689 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 23.40 mg/kg Cadmium Measured Concentration: 1.20 mg/kg Chromium Measured Concentration: 108.60 mg/kg Lead Measured Concentration: 489.20 mg/kg Nickel Measured Concentration: 52.10 mg/kg	A14NW (NW)	720	2	519730 176689
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520719, 175237 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 6.90 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 90.70 mg/kg Lead Measured Concentration: 3798.20 mg/kg Nickel Measured Concentration: 19.90 mg/kg	A7SW (SE)	734	2	520719 175237
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 519801, 175178 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 17.00 mg/kg Cadmium Measured Concentration: 5.20 mg/kg Chromium Measured Concentration: 75.60 mg/kg Lead Measured Concentration: 196.50 mg/kg Nickel Measured Concentration: 30.50 mg/kg	A6SW (SW)	741	2	519801 175178
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 520735, 176791 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 17.10 mg/kg Cadmium Measured Concentration: 0.80 mg/kg Chromium Measured Concentration: 57.50 mg/kg Lead Measured Concentration: 150.90 mg/kg Nickel Measured Concentration: 24.70 mg/kg	A15NW (NE)	752	2	520735 176791

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 519290, 176226 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 20.50 mg/kg Cadmium Measured Concentration: 0.50 mg/kg Chromium Measured Concentration: 55.10 mg/kg Lead Measured Concentration: 380.00 mg/kg Nickel Measured Concentration: 28.00 mg/kg	A9NW (W)	871	2	519290 176226
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 519257, 175746 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 15.10 mg/kg Cadmium Measured Concentration: 1.80 mg/kg Chromium Measured Concentration: 79.70 mg/kg Lead Measured Concentration: 204.10 mg/kg Nickel Measured Concentration: 22.50 mg/kg	A9SW (W)	884	2	519257 175746
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 521309, 176664 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured Concentration: 26.50 mg/kg Cadmium Measured Concentration: 0.70 mg/kg Chromium Measured Concentration: 59.40 mg/kg Lead Measured Concentration: 208.50 mg/kg Nickel Measured Concentration: 24.60 mg/kg	A16SW (NE)	918	2	521309 176664
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7209 Arsenic Minimum Concentration: 1.00 mg/kg Arsenic Average Concentration: 17.00 mg/kg Arsenic Maximum Concentration: 161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 165.20 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 79.00 mg/kg Chromium Maximum Concentration: 2094.00 mg/kg Lead Minimum Concentration: 11.00 mg/kg Lead Average Concentration: 280.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 2.00 mg/kg Nickel Average Concentration: 28.00 mg/kg Nickel Maximum Concentration: 506.00 mg/kg	A10SE (SW)	0	2	520364 175992

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	4	2	520432 176116
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	130	2	520000 175992
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	4	2	520432 176116
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	63	2	520160 176189
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	130	2	520000 175992
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	167	2	520493 176271
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	130	2	520000 175992
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (E)	16	2	520643 176047
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	130	2	520000 175992
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (N)	154	2	520433 176263
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	189	2	520394 176301
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	130	2	520000 175992
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	0	2	520403 176072

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10SW (W)	130	2	520000 175992
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A11NW (NE)	140	2	520494 176229
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A10NW (NW)	245	2	520000 176279
	Radon Potential - Radon Affected Areas Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10SE (SW)	0	2	520364 175992

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	**Contemporary Trade Directory Entries** Name: The Stag Brewing Co Location: The Stag Brewery, Mortlake, London, SW14 7ET Classification: Brewers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SW (E)	0	-	520559 175962
56	**Contemporary Trade Directory Entries** Name: World Visual Location: Mortlake Business Centre, 20, Mortlake High Street, London, SW14 8JN Classification: Shop Fittings Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SW (E)	36	-	520579 175927
57	**Contemporary Trade Directory Entries** Name: Oven Cleaning (Mortlake) Location: 36, Lower Richmond Road, London, SW14 7EX Classification: Oven cleaning **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SE (S)	8	-	520354 175935
58	**Contemporary Trade Directory Entries** Name: T D Tom Davies Ltd Location: 63, Mortlake High Street, London, SW14 8HL Classification: Optical Goods - Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SW (E)	42	-	520707 175989
58	**Contemporary Trade Directory Entries** Name: B B A Reman Location: Boat Race House, 61, Mortlake High Street, London, SW14 8HL Classification: Car Component Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SE (E)	71	-	520736 175990
58	**Contemporary Trade Directory Entries** Name: B M Lifestyle Location: 64, Mortlake High Street, London, SW14 8HR Classification: Laundries & Launderettes **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SW (E)	74	-	520729 175949
59	**Contemporary Trade Directory Entries** Name: M Sullivan Location: 29-31, Lower Richmond Road, London, SW14 7EZ Classification: Scrap Metal Merchants **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SE (S)	42	-	520325 175860
60	**Contemporary Trade Directory Entries** Name: Cleaners Of Mortlake Location: 11, Sheen Lane, London, SW14 8HY Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SW (SE)	56	-	520514 175883
60	**Contemporary Trade Directory Entries** Name: Mortlake Cleaners Location: 17, Sheen Lane, London, SW14 8HY Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SW (SE)	71	-	520504 175867
60	**Contemporary Trade Directory Entries** Name: Mortlake Cleaners Location: 17, Sheen Lane, London, SW14 8HY Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SW (SE)	71	-	520504 175867
61	**Contemporary Trade Directory Entries** Name: D T R Location: 29, Sheen Lane, London, SW14 8HY Classification: Mot Testing Centres **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SW (SE)	157	-	520522 175782
62	**Contemporary Trade Directory Entries** Name: Sheen Lane Builders Merchants Location: 10, Sheen Lane, London, SW14 8LL Classification: Builders' Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SW (SE)	163	-	520458 175779

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
62	**Contemporary Trade Directory Entries** Name: Rubbish Clearance Unlimited Location: London, Sw14 8ll Classification: Waste Disposal Services **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A11SW (SE)	163	-	520458 175779
63	**Contemporary Trade Directory Entries** Name: Rapid Action Packaging Location: 107, Mortlake High Street, London, SW14 8HQ Classification: Packaging & Wrapping Equipment & Supplies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (E)	186	-	520851 175989
64	**Contemporary Trade Directory Entries** Name: Classic Chrome Ltd Location: 12, Sheen Lane, London, SW14 8LN Classification: Classic Car Specialists **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SW (SE)	204	-	520492 175733
64	**Contemporary Trade Directory Entries** Name: Pace Mortlake Service Station Location: 16-26, Sheen Lane, London, SW14 8LW Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SW (S)	246	-	520479 175692
64	**Contemporary Trade Directory Entries** Name: Banner Interiors Location: 28, Sheen Lane, London, SW14 8LW Classification: Office Furniture & Equipment **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	275	-	520479 175663
65	**Contemporary Trade Directory Entries** Name: Azo Print Ltd Location: 44, Kingsway, London, SW14 7HW Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SW (SW)	228	-	519942 175720
66	**Contemporary Trade Directory Entries** Name: Principal Property Maintenance Ltd Location: 25, Worple Street, London, SW14 8HE Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (E)	229	-	520865 175875
67	**Contemporary Trade Directory Entries** Name: Mortlake Crematorium Board Location: Kew Meadow Path, Richmond, Surrey, TW9 4EN Classification: Cemeteries & Crematoria **Status: Active** Positional Accuracy: Automatically positioned to the address	A10NW (NW)	241	-	519999 176274
68	**Contemporary Trade Directory Entries** Name: Daley Motors Location: Rear Of, 129, Kingsway, London, SW14 7HN Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A10SW (SW)	297	-	519886 175680
68	**Contemporary Trade Directory Entries** Name: G A L Car Repairs Location: Rear Of, 129, Kingsway, London, SW14 7HN Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SW (SW)	338	-	519841 175676
68	**Contemporary Trade Directory Entries** Name: Alfa Craft Location: 129, Kingsway, London, SW14 7HN Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A10SW (SW)	338	-	519841 175676
69	**Contemporary Trade Directory Entries** Name: Chase Electronics Ltd Location: St Leonards Ho,St Leonards Rd, London, SW14 7LY Classification: Electronic Engineers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A6NW (SW)	298	-	519954 175604

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	**Contemporary Trade Directory Entries** Name: Maggie'S Oven Services Location: 30, Sheen Lane, London, SW14 8LW Classification: Oven cleaning **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	299	-	520477 175640
71	**Contemporary Trade Directory Entries** Name: Leinster Motor Engineering Ltd Location: 2a, Leinster Avenue, London, SW14 7JP Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A6NE (SW)	303	-	520143 175532
71	**Contemporary Trade Directory Entries** Name: Leinster Motors Location: 2a, Leinster Avenue, London, SW14 7JP Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (SW)	303	-	520148 175533
71	**Contemporary Trade Directory Entries** Name: Leinster Motors Ltd Location: 2a, Leinster Avenue, London, SW14 7JP Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (SW)	303	-	520148 175533
71	**Contemporary Trade Directory Entries** Name: Leinster Motors Ltd Location: 2a, Leinster Avenue, London, SW14 7JP Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (SW)	303	-	520143 175532
72	**Contemporary Trade Directory Entries** Name: Paul Whiteman Location: 18, Ripley Gardens, London, SW14 8HF Classification: Fireplaces & Mantelpieces **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SE (E)	314	-	520932 175821
73	**Contemporary Trade Directory Entries** Name: Street Cards Location: 59, North Worple Way, London, SW14 8PS Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A11SE (SE)	317	-	520889 175760
74	**Contemporary Trade Directory Entries** Name: Institue Of Cemetery & Creamatorium Management Location: The Gate House, Kew Meadow Path, Richmond, Surrey, TW9 4EN Classification: Cemeteries & Crematoria **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (NW)	349	-	519971 176406
75	**Contemporary Trade Directory Entries** Name: Carpet Cleaning London Location: Carpet Cleaning London, London, SW14 8PU Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Manually positioned within the geographical locality	A11SE (E)	356	-	520998 175859
75	**Contemporary Trade Directory Entries** Name: Sw London Carpet Cleaning Location: 73, Avondale Road, London, SW14 8PU Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A11SE (E)	369	-	521005 175842
76	**Contemporary Trade Directory Entries** Name: Webuyanycar.Com Location: 179-181, Lower Richmond Road, Richmond, Surrey, TW9 4LN Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SW (W)	378	-	519758 175823
76	**Contemporary Trade Directory Entries** Name: We Buy Any Car Richmond Location: 179-181, Lower Richmond Road, Richmond, Surrey, TW9 4LN Classification: Car Dealers - Used **Status: Active** Positional Accuracy: Automatically positioned to the address	A10SW (W)	378	-	519758 175823

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	**Contemporary Trade Directory Entries** Name: Tantra Media Location: Diamond House, 179, Lower Richmond Road, Richmond, Surrey, TW9 4LN Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SW (W)	378	-	519758 175823
76	**Contemporary Trade Directory Entries** Name: Nespack Location: Diamond House, 179, Lower Richmond Road, Richmond, Surrey, TW9 4LN Classification: Engineering Machine Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SW (W)	378	-	519758 175823
76	**Contemporary Trade Directory Entries** Name: Hi-Tech Technologies Location: Flat 1, 179, Lower Richmond Road, Richmond, Surrey, TW9 4LN Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A10SW (W)	378	-	519758 175823
76	**Contemporary Trade Directory Entries** Name: Mj Studio & M & M Restoration Location: 179-181 Lower Richmond Rd, Richmond, Surrey, TW9 4LN Classification: Antiques - Repairing & Restoring **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A10SW (W)	378	-	519758 175823
77	**Contemporary Trade Directory Entries** Name: B S & B Safety Systems Location: 68, Sheen Lane, London, SW14 8LP Classification: Chemical Plant & Equipment **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	396	-	520460 175522
77	**Contemporary Trade Directory Entries** Name: Black Sivalls & Bryson (Uk) Ltd Location: 68, Sheen Lane, London, SW14 8LP Classification: Oil & Gas Exploration Supplies & Services **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	396	-	520460 175522
78	**Contemporary Trade Directory Entries** Name: Sheen Mower Service Location: 1 Hampton Works, Rear of 119, Sheen Lane, London, SW14 8AE Classification: Lawnmowers & Garden Machinery - Sales & Service **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (S)	414	-	520516 175524
78	**Contemporary Trade Directory Entries** Name: Trimac Engineering Uk Ltd Location: Hampton Works, Rear Of, 119, Sheen Lane, London, SW14 8AE Classification: Engineers - General **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A7NW (S)	427	-	520500 175510
78	**Contemporary Trade Directory Entries** Name: Image Transfer Ltd Location: 115, Sheen Lane, London, SW14 8AE Classification: Photographic Processors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	432	-	520498 175502
78	**Contemporary Trade Directory Entries** Name: Printfolio Location: 117, Sheen Lane, London, SW14 8AE Classification: Picture & Picture Frame Renovating & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	437	-	520495 175494
78	**Contemporary Trade Directory Entries** Name: Texcare Ltd Location: 76, Sheen Lane, London, SW14 8LP Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	447	-	520474 175471
78	**Contemporary Trade Directory Entries** Name: The Complete Office Location: 76, Sheen Lane, London, SW14 8LP Classification: Office Furniture & Equipment **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	447	-	520474 175471

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
78	**Contemporary Trade Directory Entries** Name: Blue Lemon Location: 119, Sheen Lane, London, SW14 8AE Classification: Furniture - Reproduction **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	450	-	520504 175486
78	**Contemporary Trade Directory Entries** Name: The Laundry Room Location: 123, Sheen Lane, London, SW14 8AE Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (S)	458	-	520505 175476
78	**Contemporary Trade Directory Entries** Name: Bubbles Location: 123, Sheen Lane, London, SW14 8AE Classification: Laundries & Launderettes **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	458	-	520505 175476
79	**Contemporary Trade Directory Entries** Name: Westlake Garages Ltd Location: 193-195, Lower Richmond Road, Richmond, Surrey, TW9 4LN Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SE (W)	434	-	519703 175817
79	**Contemporary Trade Directory Entries** Name: Richmond Motors Location: 193-195, Lower Richmond Road, Richmond, Surrey, TW9 4LN Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SE (W)	434	-	519703 175817
80	**Contemporary Trade Directory Entries** Name: Feedco Resources Location: 17,The Old Power Station,121 Mortlake High St, London, SW14 8SN Classification: Oil Companies **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (E)	435	-	521098 176024
80	**Contemporary Trade Directory Entries** Name: Jadecloud Location: Unit 2, The Old Power Styation, 121, Mortlake High Street, London, SW14 8SN Classification: Clothing & Fabrics - Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12NW (E)	436	-	521099 176025
80	**Contemporary Trade Directory Entries** Name: Zodiac Clothing Location: Unit 18, The Old Power Station, 121, Mortlake High Street, London, SW14 8SN Classification: Shirt Makers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	436	-	521099 176025
80	**Contemporary Trade Directory Entries** Name: Andrew Winch Designs Location: 123, Mortlake High Street, London, SW14 8SN Classification: Boatbuilders & Repairers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12NW (E)	471	-	521132 176050
81	**Contemporary Trade Directory Entries** Name: Sloppy Joe Location: 28, Portman Avenue, London, SW14 8NX Classification: Clothing & Fabrics - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	436	-	520751 175555
82	**Contemporary Trade Directory Entries** Name: Aws Ltd Location: 366, Upper Richmond Road West, London, SW14 7JU Classification: Car Body Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	491	-	520030 175358

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
82	**Contemporary Trade Directory Entries** Name: Dasini Dry Cleaners Location: 356, Upper Richmond Road West, London, SW14 7JT Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (SW)	491	-	520073 175349
82	**Contemporary Trade Directory Entries** Name: Furniture Repair Location: 358, Upper Richmond Road West, LONDON, SW14 7JT Classification: Furniture - Repairing & Restoring **Status: Active** Positional Accuracy: Automatically positioned to the address	A6NE (SW)	493	-	520067 175349
82	**Contemporary Trade Directory Entries** Name: Capital Cars Location: 362, Upper Richmond Road West, London, SW14 7JT Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	495	-	520054 175349
82	**Contemporary Trade Directory Entries** Name: Capital Cars Location: 362, Upper Richmond Road West, London, SW14 7JT Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	495	-	520054 175349
82	**Contemporary Trade Directory Entries** Name: Capital Location: 362, Upper Richmond Road West, London, SW14 7JT Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	495	-	520054 175349
82	**Contemporary Trade Directory Entries** Name: Capital Direct Location: 362, Upper Richmond Road West, London, SW14 7JT Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	495	-	520054 175349
82	**Contemporary Trade Directory Entries** Name: Four Seasons Blinds Location: 479a, Upper Richmond Road West, London, SW14 7PU Classification: Blinds, Awnings & Canopies **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	528	-	520081 175311
83	**Contemporary Trade Directory Entries** Name: Robert Dyas Location: 270-274, Upper Richmond Road West, London, SW14 7JE Classification: Hardware **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	495	-	520442 175401
83	**Contemporary Trade Directory Entries** Name: Grooms Location: 282, Upper Richmond Road West, London, SW14 7JE Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	496	-	520409 175386
83	**Contemporary Trade Directory Entries** Name: Pest & Vermin Control Location: Upper Richmond Rd West, London, SW14 7NX Classification: Pest & Vermin Control **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A7NW (S)	516	-	520438 175376
84	**Contemporary Trade Directory Entries** Name: J T Huckin & Co Location: A, 2, Thornton Road, London, SW14 8NS Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (SE)	500	-	520692 175475
84	**Contemporary Trade Directory Entries** Name: London Lights Location: 194, Upper Richmond Road West, London, SW14 8AN Classification: Lighting Manufacturers **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SE)	535	-	520716 175446

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
85	**Contemporary Trade Directory Entries** Name: Prontaprint Location: 302, Upper Richmond Road West, London, SW14 7JG Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (S)	504	-	520326 175353
85	**Contemporary Trade Directory Entries** Name: Richmond Diy Location: 300 Upper Richmond Rd West, London, SW14 7JG Classification: Builders' Merchants **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A6NE (S)	506	-	520332 175352
85	**Contemporary Trade Directory Entries** Name: Pack & Send Location: 417, Upper Richmond Road West, London, SW14 7PJ Classification: Freight Forwarders **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	536	-	520324 175319
86	**Contemporary Trade Directory Entries** Name: Sound Image (Uk) Ltd Location: 52, Milton Road, London, SW14 8JR Classification: Hi-Fi Equipment Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	517	-	520570 175426
87	**Contemporary Trade Directory Entries** Name: Kwik-Fit Location: 172-176, Upper Richmond Road West, London, SW14 8AW Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	522	-	520784 175474
88	**Contemporary Trade Directory Entries** Name: Catol Hardway Location: 10, Grand Parade, Upper Richmond Road West, London, SW14 7PS Classification: Hardware **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	528	-	520144 175308
88	**Contemporary Trade Directory Entries** Name: M Malewicz Location: 5, Grand Parade, Upper Richmond Road West, London, SW14 7PS Classification: Laundries & Launderettes **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	529	-	520155 175307
88	**Contemporary Trade Directory Entries** Name: Royal Dry Cleaners Location: 455, Upper Richmond Road West, London, SW14 7PR Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	532	-	520190 175304
89	**Contemporary Trade Directory Entries** Name: Kew Brewery Location: 477, Upper Richmond Road West, London, SW14 7PU Classification: Brewers **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	529	-	520086 175309
90	**Contemporary Trade Directory Entries** Name: Sheen Car Centre Location: 451-453 Upper Richmond Rd West, London, SW14 7PR Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A6SE (S)	533	-	520200 175304
90	**Contemporary Trade Directory Entries** Name: Coopers Electrical Store Location: 441-445, Upper Richmond Road West, London, SW14 7PJ Classification: Electrical Goods Sales, Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6SE (S)	537	-	520244 175304
91	**Contemporary Trade Directory Entries** Name: Yellow Print Shop Location: 369, Upper Richmond Road West, London, SW14 7NX Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (S)	534	-	520472 175372

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
92	**Contemporary Trade Directory Entries** Name: Sketchley Retail Ltd Location: 401, Upper Richmond Road West, London, SW14 7NX Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (S)	535	-	520381 175336
92	**Contemporary Trade Directory Entries** Name: Klick Location: 401, Upper Richmond Road West, London, SW14 7NX Classification: Photographic Processors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NE (S)	535	-	520381 175336
93	**Contemporary Trade Directory Entries** Name: A C Services London Location: 182 Upper Richmond Road West, Sheen/, London, SW14 8AW Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7NE (SE)	536	-	520764 175455
93	**Contemporary Trade Directory Entries** Name: Multifix Frasers Of Richmond Location: 263, Upper Richmond Road West, London, SW14 8QS Classification: Domestic Appliances - Servicing, Repairs & Parts **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	578	-	520773 175415
94	**Contemporary Trade Directory Entries** Name: Bathstore Location: 410 Upper Richmond Rd West, London, SW14 7JX Classification: Bathroom Fixtures - Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A6NW (SW)	543	-	519884 175358
94	**Contemporary Trade Directory Entries** Name: Richmond Road Automobiles Location: 418, Upper Richmond Road West, London, SW14 7JX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	553	-	519863 175358
94	**Contemporary Trade Directory Entries** Name: Techno Heat Location: 420, Upper Richmond Road West, London, SW14 7JX Classification: Heating Services - Industrial and Commercial **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	557	-	519857 175357
94	**Contemporary Trade Directory Entries** Name: Classic Lights Location: 420, Upper Richmond Road West, London, SW14 7JX Classification: Lampshade Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	557	-	519857 175357
94	**Contemporary Trade Directory Entries** Name: Richmond & Sheen Green Plumbing & Heating Co Location: 422, Upper Richmond Road West, London, SW14 7JX Classification: Heating Services - Industrial and Commercial **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	560	-	519849 175358
94	**Contemporary Trade Directory Entries** Name: Mapharm Ltd Location: 424, Upper Richmond Road West, London, SW14 7JX Classification: Pharmaceutical Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	564	-	519843 175358
94	**Contemporary Trade Directory Entries** Name: Sportscraft Location: 424, Upper Richmond Road West, London, SW14 7JX Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	564	-	519843 175358
94	**Contemporary Trade Directory Entries** Name: Sportscraft Location: 424, Upper Richmond Road West, London, SW14 7JX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	564	-	519843 175358

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
94	**Contemporary Trade Directory Entries** Name: Sportscraft Location: 424, Upper Richmond Road West, London, SW14 7JX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	564	-	519843 175358
94	**Contemporary Trade Directory Entries** Name: Richmond Auto Centre Location: 424a, Upper Richmond Road West, London, SW14 7JX Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6NW (SW)	564	-	519842 175358
95	**Contemporary Trade Directory Entries** Name: Ducane Dry Cleaners Location: 141, Sheen Lane, London, SW14 8LR Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (S)	550	-	520527 175382
95	**Contemporary Trade Directory Entries** Name: Spencers Location: 141, Sheen Lane, London, SW14 8LR Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	550	-	520527 175382
95	**Contemporary Trade Directory Entries** Name: Sublistatic International Location: Suite 105, Parkway House, Sheen Lane, London, SW14 8LS Classification: Textile Manufacturing **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	559	-	520523 175369
95	**Contemporary Trade Directory Entries** Name: Uk Catering Ltd Location: Suite 207 Parkway House Sheen la, London, SW14 8LS Classification: Catering Equipment **Status: Active** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	559	-	520522 175369
95	**Contemporary Trade Directory Entries** Name: Soeasy Trade Location: Unit 100, Parkway House, Sheen Lane, London, SW14 8LS Classification: Cosmetic Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (S)	559	-	520523 175369
95	**Contemporary Trade Directory Entries** Name: B & M Location: Unit 412, Parkway House, Sheen Lane, London, SW14 8LS Classification: Distribution Services **Status: Active** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	559	-	520523 175369
95	**Contemporary Trade Directory Entries** Name: B & M Location: Unit 412, Parkway House, Sheen Lane, London, SW14 8LS Classification: Sugar Refiners & Suppliers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	559	-	520523 175369
95	**Contemporary Trade Directory Entries** Name: Alex Cleaning Services Ltd Location: Suite 209 Parkway House Sheen la, London, SW14 8LS Classification: Cleaning Services - Domestic **Status: Active** Positional Accuracy: Manually positioned to the address or location	A7NW (S)	560	-	520522 175368
96	**Contemporary Trade Directory Entries** Name: Sheen Tyres & Exhausts Ltd Location: 311, Upper Richmond Road West, London, SW14 8QR Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (SE)	563	-	520701 175411
96	**Contemporary Trade Directory Entries** Name: Sheen Tyres & Exhaust Location: 311, Upper Richmond Road West, London, SW14 8QR Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (SE)	563	-	520701 175411

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
96	**Contemporary Trade Directory Entries** Name: Sheen Ltd Location: 311, Upper Richmond Road West, London, SW14 8QR Classification: Tyre Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NW (SE)	563	-	520701 175411
97	**Contemporary Trade Directory Entries** Name: L W C R Location: Flat 1, 21, Whitcome Mews, Richmond, Surrey, TW9 4BU Classification: Refrigerators & Freezers - Servicing & Repairs **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SW (NW)	563	-	519853 176589
98	**Contemporary Trade Directory Entries** Name: Clean As A Whistle Location: 14, Avenue Gardens, LONDON, SW14 8BP Classification: Commercial Cleaning Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	569	-	521047 175562
99	**Contemporary Trade Directory Entries** Name: Madelaines Location: 48, Coval Road, London, SW14 7RL Classification: Confectionery Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A6SW (SW)	573	-	520049 175270
100	**Contemporary Trade Directory Entries** Name: Furniture Doctor The Location: 4, The Broadway, London, SW13 0NY Classification: French Polishing **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	577	-	521239 176042
100	**Contemporary Trade Directory Entries** Name: The Furniture Doctor Upholstery Location: 4, The Broadway, London, SW13 0NY Classification: Upholstery Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	577	-	521239 176042
100	**Contemporary Trade Directory Entries** Name: Riverside Dry Cleaning Co Location: 9, The Broadway, London, SW13 0NY Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	596	-	521259 176026
100	**Contemporary Trade Directory Entries** Name: Riverside Location: 9, The Broadway, London, SW13 0NY Classification: Laundry & Dry Cleaning Supplies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	596	-	521259 176026
100	**Contemporary Trade Directory Entries** Name: Chelsea Carpet Cleaning Location: 9, The Broadway, London, SW13 0NY Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	596	-	521259 176026
100	**Contemporary Trade Directory Entries** Name: Claymore Motor Location: White Hart La, London, SW13 0PX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A12NW (E)	605	-	521268 176036
100	**Contemporary Trade Directory Entries** Name: Byrne Bros Ltd Location: 13-15, White Hart Lane, London, SW13 0PX Classification: Concrete Contractors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	624	-	521287 176038
100	**Contemporary Trade Directory Entries** Name: Guy Salmon Jaguar Barnes Location: 13-15, White Hart Lane, London, SW13 0PX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	624	-	521287 176038

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
100	**Contemporary Trade Directory Entries** Name: Claymore Motor Co Location: 13-15, White Hart Lane, London, SW13 0PX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	624	-	521287 176038
100	**Contemporary Trade Directory Entries** Name: Europe Motors Ltd Location: 15, White Hart Lane, London, SW13 0PX Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NW (E)	624	-	521287 176038
101	**Contemporary Trade Directory Entries** Name: M G Sash Windows Location: 201a, Upper Richmond Road West, London, SW14 8QT Classification: Windows - Sash **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	594	-	520886 175432
101	**Contemporary Trade Directory Entries** Name: Hamlyns Exclusive Drycleaners Location: 197, Upper Richmond Road West, London, SW14 8QT Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	596	-	520897 175433
102	**Contemporary Trade Directory Entries** Name: Ajacks Office Cleaning Co Location: 52, Lambert Avenue, Richmond, Surrey, TW9 4QU Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A5NE (SW)	608	-	519562 175637
103	**Contemporary Trade Directory Entries** Name: Strobel & Sons Location: Flat B, 11, Temple Sheen Road, London, SW14 7PY Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	617	-	520156 175218
104	**Contemporary Trade Directory Entries** Name: Press Gang Location: 34, White Hart Lane, London, SW13 0PY Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (E)	622	-	521285 175931
105	**Contemporary Trade Directory Entries** Name: Architectural Stained Glass Location: 58, First Avenue, London, SW14 8SR Classification: Stained Glass Designers & Producers **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (E)	622	-	521262 175813
106	**Contemporary Trade Directory Entries** Name: Barnes Hospital Location: South Worple Way, London, SW14 8SU Classification: Hospitals **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A12SW (E)	629	-	521232 175714
107	**Contemporary Trade Directory Entries** Name: Four Seasons Location: Upper Richmond Rd West, London, SW14 7PU Classification: Blinds, Awnings & Canopies **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A6NW (SW)	630	-	519758 175336
107	**Contemporary Trade Directory Entries** Name: Star Service Stations Location: 567, Upper Richmond Road West, London, SW14 7ED Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A5SE (SW)	675	-	519716 175312
108	**Contemporary Trade Directory Entries** Name: Astonishing Space Location: 7, Whitcome Mews, Richmond, Surrey, TW9 4BT Classification: Cleaning Services - Domestic **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (NW)	632	-	519868 176688

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
109	**Contemporary Trade Directory Entries** Name: Capital Cars Location: 114, Upper Richmond Road West, London, SW14 8DT Classification: Car Dealers - Used **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	641	-	521056 175475
109	**Contemporary Trade Directory Entries** Name: Fresh Cleaning & Inventory Services Location: 30, Avenue Gardens, London, SW14 8BP Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (SE)	642	-	521083 175496
109	**Contemporary Trade Directory Entries** Name: Capital Cars Showroom Location: 110-116, Upper Richmond Road West, London, SW14 8DT Classification: Car Dealers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7NE (SE)	646	-	521067 175477
110	**Contemporary Trade Directory Entries** Name: Truelove Lingerie Location: 48, White Hart Lane, London, SW13 0PZ Classification: Lingerie & Hosiery Manufacturers & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (E)	648	-	521304 175882
111	**Contemporary Trade Directory Entries** Name: Barnes Location: 1, Thorne Street, London, SW13 0PT Classification: Blinds, Awnings & Canopies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (E)	665	-	521330 175961
112	**Contemporary Trade Directory Entries** Name: Shell Richmond Location: 22-24 Lower Richmond Road, Richmond, Surrey, TW9 4LJ Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Manually positioned within the geographical locality	A9SE (W)	676	-	519462 175786
113	**Contemporary Trade Directory Entries** Name: F & S Cleaning Services Location: 15, Deanhill Court, Upper Richmond Road West, London, SW14 7DJ Classification: Cleaning Services - Domestic **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SW (SW)	678	-	519846 175225
114	**Contemporary Trade Directory Entries** Name: Prism Events Location: 21, Kelsall Mews, RICHMOND, Surrey, TW9 4BP Classification: Laboratories **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (NW)	689	-	519844 176740
115	**Contemporary Trade Directory Entries** Name: Singer Electronics Ltd Location: 39, East Sheen Avenue, London, SW14 8AR Classification: Telecommunications Equipment & Systems **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A7SE (SE)	735	-	520855 175272
116	**Contemporary Trade Directory Entries** Name: Benjamin At Grosvenor Garage Location: Fitzgerald Avenue, London, SW14 8SZ Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NW (E)	742	-	521317 175633
117	**Contemporary Trade Directory Entries** Name: Phillips Edwin London Ltd Location: 25, Bicester Road, Richmond, Surrey, TW9 4QL Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A5NE (W)	753	-	519413 175632
118	**Contemporary Trade Directory Entries** Name: Gleamers Location: 42, Charles Street, London, SW13 0NZ Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12NE (E)	758	-	521422 176028

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
119	**Contemporary Trade Directory Entries** Name: Caroline B Designs Location: 58, Marksbury Avenue, Richmond, Surrey, TW9 4JF Classification: Lampshade Manufacturers & Distributors **Status: Active** Positional Accuracy: Automatically positioned to the address	A9NW (W)	762	-	519377 176110
119	**Contemporary Trade Directory Entries** Name: The Hanway Press Ltd Location: 67, Marksbury Avenue, Richmond, Surrey, TW9 4JE Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9NW (W)	798	-	519345 176138
120	**Contemporary Trade Directory Entries** Name: Sheen Lane Motors Ltd Location: 194-198, Sheen Lane, London, SW14 8LF Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A6SE (S)	769	-	520381 175094
121	**Contemporary Trade Directory Entries** Name: Bushwood Books Ltd Location: 6, Marksbury Avenue, RICHMOND, Surrey, TW9 4JF Classification: Distribution Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (W)	776	-	519357 175905
122	**Contemporary Trade Directory Entries** Name: Ruffells Motors Mastown Ltd Location: 97a, White Hart Lane, London, SW13 0JL Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (E)	782	-	521412 175754
122	**Contemporary Trade Directory Entries** Name: Ruffells Motors Ltd Location: 97a, White Hart Lane, London, SW13 0JL Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (E)	782	-	521412 175754
123	**Contemporary Trade Directory Entries** Name: Lesley Vernon Marketing Ltd Location: A, 36, Westfields Avenue, London, SW13 0AU Classification: Clothing & Fabrics - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SE (E)	795	-	521451 175867
124	**Contemporary Trade Directory Entries** Name: General Pharmaceutical Ltd Location: Upper Richmond Rd West, London, SW14 8DD Classification: Pharmaceutical Manufacturers & Distributors **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A8NW (SE)	809	-	521286 175466
124	**Contemporary Trade Directory Entries** Name: Myhome Services Ltd Location: Suiye C, London House, 42, Upper Richmond Road West, London, SW14 8DD Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned in the proximity of the address	A8NW (SE)	821	-	521325 175496
124	**Contemporary Trade Directory Entries** Name: Mrs Mcmopp Location: Unit E, London House, 42, Upper Richmond Road West, London, SW14 8DD Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8NW (SE)	824	-	521328 175496
124	**Contemporary Trade Directory Entries** Name: Just Cleaning Service Ltd Location: 38, Upper Richmond Road West, London, SW14 8DD Classification: Carpet, Curtain & Upholstery Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NW (SE)	839	-	521349 175499

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
125	**Contemporary Trade Directory Entries** Name: Petropolis Location: 21-22, Popham Gardens, Lower Richmond Road, Richmond, TW9 4LJ Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Automatically positioned to the address	A9SW (W)	810	-	519332 175744
125	**Contemporary Trade Directory Entries** Name: Shell Location: 21-22, Popham Gardens, Lower Richmond Road, Richmond, Surrey, TW9 4LJ Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A9SW (W)	810	-	519332 175744
126	**Contemporary Trade Directory Entries** Name: The Grading Co Location: 159, Mortlake Road, Richmond, Surrey, TW9 4AW Classification: Clothing & Fabrics - Manufacturers **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A13SE (NW)	855	-	519460 176578
127	**Contemporary Trade Directory Entries** Name: Onken Location: 11, Well Lane, London, SW14 7AE Classification: Dairies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A2NE (S)	858	-	520172 174978
128	**Contemporary Trade Directory Entries** Name: B M G Scooters Location: A, 11, Wayside, London, SW14 7LN Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A2NE (S)	883	-	520336 174967
129	**Contemporary Trade Directory Entries** Name: White Hart Dry Cleaners Location: 155, White Hart Lane, London, SW13 0JP Classification: Dry Cleaners **Status: Active** Positional Accuracy: Automatically positioned to the address	A8NE (E)	892	-	521459 175580
129	**Contemporary Trade Directory Entries** Name: Finishing Coatings Location: Unit 2, 26-28, Priests Bridge, London, SW14 8TA Classification: Enamelling **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (E)	933	-	521494 175558
129	**Contemporary Trade Directory Entries** Name: Matt Grint Restoration Location: Unit 2, 26-28, Priests Bridge, London, SW14 8TA Classification: Antiques - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (E)	933	-	521494 175558
129	**Contemporary Trade Directory Entries** Name: The Stained Glass Place Location: 26-28 Priests Bridge, London, SW14 8TA Classification: Stained Glass Designers & Producers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A8NE (E)	937	-	521492 175545
129	**Contemporary Trade Directory Entries** Name: J P Motors Location: 26-28, Priests Bridge, London, SW14 8TA Classification: Car Dealers - Used **Status: Active** Positional Accuracy: Manually positioned to the address or location	A8NE (E)	937	-	521492 175545
129	**Contemporary Trade Directory Entries** Name: West London Stained Glass Location: Unit 5, 26-28, Priests Bridge, London, SW14 8TA Classification: Stained Glass Designers & Producers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A8NE (E)	937	-	521492 175545

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
130	**Contemporary Trade Directory Entries** Name: G & W Auto Recovery Service Ltd Location: Unit 2, Market Road, Richmond, Surrey, TW9 4LZ Classification: Breakdown and Recovery **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A5NW (W)	896	-	519264 175632
130	**Contemporary Trade Directory Entries** Name: Hammond Vivian Ltd Location: Power House, 27, Market Road, Richmond, Surrey, TW9 4LZ Classification: Printers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A5NW (W)	917	-	519249 175607
130	**Contemporary Trade Directory Entries** Name: Natgraphics Location: Hydrex House, Garden Road, Richmond, Surrey, TW9 4NR Classification: Printing Engineering Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A5NW (W)	927	-	519235 175624
130	**Contemporary Trade Directory Entries** Name: Natgrathics Location: Hydrex House, Garden Road, Richmond, Surrey, TW9 4NR Classification: Printers **Status: Inactive** Positional Accuracy: Manually positioned to the address or location	A5NW (W)	927	-	519235 175624
131	**Contemporary Trade Directory Entries** Name: Capital Direct Ltd Location: 93, East Sheen Avenue, LONDON, SW14 8AX Classification: Car Dealers **Status: Active** Positional Accuracy: Automatically positioned to the address	A7SE (SE)	962	-	520786 175020
132	**Contemporary Trade Directory Entries** Name: Site Electrics Ltd Location: 55, York Avenue, London, SW14 7LQ Classification: Electrical Engineers **Status: Active** Positional Accuracy: Automatically positioned to the address	A2NE (S)	964	-	520306 174881
133	**Contemporary Trade Directory Entries** Name: Dairy Crest Ltd Location: Orchard Road, Richmond, Surrey, TW9 4NY Classification: Dairies **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A5NW (W)	974	-	519206 175552
134	**Contemporary Trade Directory Entries** Name: Afends Europe Ltd Location: The Bottle Factory Orchard rd, Richmond, Surrey, TW9 4AQ Classification: Clothing & Fabrics - Manufacturers **Status: Active** Positional Accuracy: Manually positioned to the road within the address or location	A5NW (W)	981	-	519176 175638
135	**Contemporary Trade Directory Entries** Name: London Cleaning Services Ltd Location: Flat 46, Aura House, 39, Melliss Avenue, Richmond, Surrey, TW9 4BX Classification: Cleaning Services - Domestic **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NW)	987	-	519665 176979
136	**Contemporary Trade Directory Entries** Name: Almandine Uk Ltd Location: 2, Devonshire Gardens, London, W4 3TW Classification: Road Haulage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A18SE (N)	998	-	520212 177166
137	**Fuel Station Entries** Name: Mortlake Location: 77, Mortlake High Street, Mortlake,, LONDON, Greater London, SW14 8HS Brand: OBSOLETE Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Located by supplier to within 100m	A11SE (E)	126	-	520774 175923

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	**Fuel Station Entries** Name: Mrh Mortlake Location: 16-26, Sheen Lane, London, SW14 8LW Brand: Esso Premises Type: Petrol Station **Status: Open** Positional Accuracy: Automatically positioned to the address	A11SW (S)	246	-	520479 175692
139	**Fuel Station Entries** Name: Prospect Filling Station Location: 205 Lower Richmond Road, North Sheen, RICHMOND, Surrey, TW9 4LN Brand: Total Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Automatically positioned to the address	A9SE (W)	462	-	519675 175811
140	**Fuel Station Entries** Name: East Sheen Service Station Location: 567, Upper Richmond Road West, London, SW14 7ED Brand: TEXACO Premises Type: Petrol Station **Status: Open** Positional Accuracy: Automatically positioned to the address	A5SE (SW)	675	-	519716 175312
141	**Fuel Station Entries** Name: Shell Richmond Location: 22-24 Lower Richmond Road, Nitan Road, Richmond, Surrey, TW9 4LJ Brand: Shell Premises Type: Petrol Station **Status: Open** Positional Accuracy: Automatically positioned to the address	A9SW (W)	810	-	519332 175744
142	**Fuel Station Entries** Name: Richmond Motor Centre Location: 293 Lower Richmond Road, Manor Gardens, North Sheen, RICHMOND, Surrey, TW9 4LU Brand: Obsolete Premises Type: Not Applicable **Status: Obsolete** Positional Accuracy: Manually positioned to the address or location	A9SW (W)	852	-	519298 175687
143	**Points of Interest - Commercial Services** Name: Sullivans of Mortlake Location: 29-31 Lower Richmond Road, London, SW14 7EZ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A10SE (S)	42	8	520325 175860
143	**Points of Interest - Commercial Services** Name: M Sullivan Location: 29-31 Lower Richmond Road, London, SW14 7EZ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A10SE (S)	42	8	520325 175860
143	**Points of Interest - Commercial Services** Name: M Sullivan Metals Ltd Location: 29-31 Lower Richmond Road, London, SW14 7EZ Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A10SE (S)	42	8	520325 175860
143	**Points of Interest - Commercial Services** Name: Scrap Yard Location: SW14 Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A10SE (S)	52	8	520329 175850
144	**Points of Interest - Commercial Services** Name: D T R Location: 29 Sheen Lane, London, SW14 8HY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11SW (SE)	157	8	520522 175782
144	**Points of Interest - Commercial Services** Name: D T R Location: 29 Sheen Lane, London, SW14 8HY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11SW (SE)	157	8	520522 175782

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
144	**Points of Interest - Commercial Services** Name: Mortlake Station Garage Location: 29 Sheen Lane, London, SW14 8HY Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11SW (SE)	157	8	520522 175782
144	**Points of Interest - Commercial Services** Name: Classic Chrome Ltd Location: 12 Sheen Lane, London, SW14 8LN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11SW (SE)	204	8	520492 175733
144	**Points of Interest - Commercial Services** Name: Classic Chrome Ltd Location: 12 Sheen Lane, London, SW14 8LN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A11SW (SE)	208	8	520484 175730
145	**Points of Interest - Commercial Services** Name: Mrh Mortlake Location: 16-26 Sheen Lane, London, SW14 8LW Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A11SW (S)	246	8	520479 175692
145	**Points of Interest - Commercial Services** Name: Car Wash Location: 16-26 Sheen Lane, London, SW14 8LW Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A11SW (S)	246	8	520479 175692
145	**Points of Interest - Commercial Services** Name: Eco Junk Express Ltd Location: 38 Sheen Lane, London, SW14 8LW Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A7NW (S)	320	8	520473 175619
146	**Points of Interest - Commercial Services** Name: Leinster Motor Engineering Ltd Location: 2a Leinster Avenue, London, SW14 7JP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A6NE (SW)	303	8	520143 175532
146	**Points of Interest - Commercial Services** Name: Leinster Motors Ltd Location: 2a Leinster Avenue, London, SW14 7JP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A6NE (SW)	303	8	520143 175532
146	**Points of Interest - Commercial Services** Name: Leinster Motors Eng Ltd Location: 2a Leinster Avenue, London, SW14 7JP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A6NE (SW)	303	8	520143 175532
147	**Points of Interest - Commercial Services** Name: Gal Car Repairs Location: Rear Of 129, Kingsway, London, SW14 7HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A10SW (SW)	338	8	519841 175676
147	**Points of Interest - Commercial Services** Name: Alfa Craft Location: 129 Kingsway, London, SW14 7HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A10SW (SW)	338	8	519841 175676
147	**Points of Interest - Commercial Services** Name: Auto Diagnostic Centre Location: Rear Of 129, Kingsway, London, SW14 7HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A10SW (SW)	338	8	519841 175676

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
147	**Points of Interest - Commercial Services** Name: G A L Car Repairs Location: Rear of 129, Kingsway, London, SW14 7HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A10SW (SW)	338	8	519841 175676
147	**Points of Interest - Commercial Services** Name: Auto Diagnostic Centre Location: 129 Kingsway, London, SW14 7HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A10SW (SW)	338	8	519841 175676
147	**Points of Interest - Commercial Services** Name: Alfa Craft Location: Rear Of 129, Kingsway, London, SW14 7HN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A6NW (SW)	397	8	519791 175643
148	**Points of Interest - Commercial Services** Name: Alfa Craft Location: 193-195 Lower Richmond Road, Richmond, TW9 4LN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9SE (W)	434	8	519703 175817
149	**Points of Interest - Commercial Services** Name: B M G Scooters Location: 2a Thornton Road, London, SW14 8NS Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SE)	500	8	520692 175475
149	**Points of Interest - Commercial Services** Name: Sheen Tyres & Exhaust Location: 311 Upper Richmond Road West, London, SW14 8QR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SE)	563	8	520701 175411
149	**Points of Interest - Commercial Services** Name: Sheen Tyres & Exhaust Location: 311 Upper Richmond Road West, London, SW14 8QR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SE)	563	8	520701 175411
150	**Points of Interest - Commercial Services** Name: Pack & Send Location: 417 Upper Richmond Road West, London, SW14 7PJ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A6SE (S)	538	8	520323 175317
151	**Points of Interest - Commercial Services** Name: Circus X Ltd Location: Unit T13, Tideway Yard, 125 Mortlake High St, London, SW14 8SN Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NW (E)	543	8	521200 176088
152	**Points of Interest - Commercial Services** Name: B & M Location: Unit 412 Parkway House, Sheen Lane, London, SW14 8LS Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A7NW (S)	559	8	520522 175369
153	**Points of Interest - Commercial Services** Name: Richmond Valeting Centre Location: 424a Upper Richmond Road West, London, SW14 7JX Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A6NW (SW)	564	8	519842 175358
154	**Points of Interest - Commercial Services** Name: Local Hand Car Wash Location: 110-112 Upper Richmond Road West, London, SW14 8DT Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A7NE (SE)	646	8	521067 175477

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
155	**Points of Interest - Commercial Services** Name: Fastcool Location: 70 White Hart Lane, London, SW13 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (E)	681	8	521325 175815
155	**Points of Interest - Commercial Services** Name: Fastcool Location: 70A White Hart Lane, London, SW13 0PZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (E)	681	8	521325 175815
156	**Points of Interest - Commercial Services** Name: Benjamin at Grosvenor Garage Location: Fitzgerald Avenue, London, SW14 8SZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (E)	742	8	521317 175633
156	**Points of Interest - Commercial Services** Name: Grosvenor Garage Location: Fitzgerald Avenue, London, SW14 8SZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NW (E)	742	8	521317 175633
157	**Points of Interest - Commercial Services** Name: Sheen Lane Motors Ltd Location: 194-198 Sheen Lane, London, SW14 8LF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A6SE (S)	768	8	520381 175094
157	**Points of Interest - Commercial Services** Name: Sheen Lane Motors Ltd Location: 194-198 Sheen Lane, London, SW14 8LF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A6SE (S)	768	8	520381 175094
158	**Points of Interest - Commercial Services** Name: Bushwood Books Ltd Location: 6 Marksbury Avenue, Richmond, TW9 4JF Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A9SW (W)	776	8	519357 175905
159	**Points of Interest - Commercial Services** Name: Ruffell's Motors Ltd Location: 97a White Hart Lane, London, SW13 0JL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SE (E)	782	8	521412 175754
159	**Points of Interest - Commercial Services** Name: Ruffells Motors Location: 97a White Hart Lane, London, SW13 0JL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SE (E)	782	8	521412 175754
159	**Points of Interest - Commercial Services** Name: Ruffells Motors Mastown Location: 97a White Hart Lane, London, SW13 0JL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SE (E)	782	8	521412 175754
160	**Points of Interest - Commercial Services** Name: Shell Richmond Location: 22-24 Lower Richmond Road, Nitan Road, Richmond, TW9 4LJ Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A9SW (W)	810	8	519332 175744
160	**Points of Interest - Commercial Services** Name: Car Wash Location: 22-24 Lower Richmond Road, Nitan Road, Richmond, Surrey, TW9 4LJ Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A9SW (W)	810	8	519332 175744

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
161	**Points of Interest - Commercial Services** Name: Bushwood Books Ltd Location: 17 Market Road, Richmond, TW9 4LZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A5NW (W)	872	8	519296 175609
161	**Points of Interest - Commercial Services** Name: Richmond Service Centre Location: Unit 2, Market Road, Richmond, TW9 4LZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A5NW (W)	918	8	519253 175589
161	**Points of Interest - Commercial Services** Name: Richmond Service Centre Location: Unit 2, Market Road, Richmond, TW9 4LZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A5NW (W)	918	8	519253 175589
162	**Points of Interest - Commercial Services** Name: Richardson Motors Barnes Ltd Location: 26-28 Priests Bridge, London, SW14 8TA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NE (E)	937	8	521492 175545
162	**Points of Interest - Commercial Services** Name: Richardson Motors Barnes Ltd Location: 26-28 Priests Bridge, London, SW14 8TA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8NE (E)	946	8	521510 175560
163	**Points of Interest - Education and Health** Name: Sheen Lane Health Centre Location: 70 Sheen Lane, London, SW14 8LP Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A7NW (S)	385	8	520419 175512
164	**Points of Interest - Education and Health** Name: Barnes Hospital Location: South Worple Way, London, SW14 8SU Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A12SW (E)	621	8	521203 175677
164	**Points of Interest - Education and Health** Name: Barnes Hospital Location: South Worple Way, London, SW14 8SU Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A12SW (E)	629	8	521232 175714
165	**Points of Interest - Manufacturing and Production** Name: Tank Location: SW14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A10NE (W)	0	8	520232 176027
165	**Points of Interest - Manufacturing and Production** Name: Tanks Location: SW14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NE (W)	0	8	520222 176010
165	**Points of Interest - Manufacturing and Production** Name: Tank Location: SW14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NE (W)	0	8	520229 176021
165	**Points of Interest - Manufacturing and Production** Name: Tank Location: SW14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NE (NW)	0	8	520237 176087

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
165	**Points of Interest - Manufacturing and Production** Name: Tank Location: SW14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NE (NW)	0	8	520229 176093
166	**Points of Interest - Manufacturing and Production** Name: Tank Location: SW14 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A10NE (NW)	0	8	520228 176106
167	**Points of Interest - Manufacturing and Production** Name: Citibase Mortlake Location: 20 Mortlake High Street, London, SW14 8JN Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to address or location	A11SW (E)	35	8	520579 175927
167	**Points of Interest - Manufacturing and Production** Name: Mortlake Business Centre Location: 20 Mortlake High Street, London, SW14 8JN Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to address or location	A11SW (E)	39	8	520567 175919
168	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	286	8	520445 175646
169	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A6NE (S)	308	8	520330 175557
169	**Points of Interest - Manufacturing and Production** Name: Works Location: SW14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A6NE (S)	308	8	520330 175557
169	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	346	8	520409 175550
169	**Points of Interest - Manufacturing and Production** Name: Works Location: SW14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	346	8	520409 175550
170	**Points of Interest - Manufacturing and Production** Name: Works Location: SW14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	428	8	520517 175510
170	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	458	8	520521 175480
170	**Points of Interest - Manufacturing and Production** Name: Works Location: SW14 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (S)	458	8	520521 175480

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	**Points of Interest - Manufacturing and Production** Name: Works Location: 339a Upper Richmond Road West, London, SW14 8QR Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to address or location	A7NW (SE)	550	8	520623 175401
172	**Points of Interest - Manufacturing and Production** Name: Caesarstone Location: Clifford House 424, Upper Richmond Road West, London, SW14 7JX Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A6NW (SW)	564	8	519843 175358
172	**Points of Interest - Manufacturing and Production** Name: Caesarstone Marble Specialists Location: 424 Upper Richmond Road West, London, SW14 7JX Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A6NW (SW)	564	8	519842 175358
173	**Points of Interest - Manufacturing and Production** Name: European Heritage Location: 8 The Broadway, London, SW13 0NY Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A12NW (E)	593	8	521256 176031
174	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A12NW (E)	723	8	521385 176048
175	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NW (NW)	853	8	519809 176911
175	**Points of Interest - Manufacturing and Production** Name: Works Location: TW9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NW (NW)	855	8	519805 176911
176	**Points of Interest - Manufacturing and Production** Name: Tank Location: TW9 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A5NW (W)	861	8	519293 175663
176	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A5NW (W)	928	8	519234 175621
177	**Points of Interest - Manufacturing and Production** Name: Works Location: TW9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (NW)	887	8	519495 176679
177	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (NW)	888	8	519494 176678
178	**Points of Interest - Manufacturing and Production** Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A5NW (W)	951	8	519215 175603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	**Points of Interest - Manufacturing and Production** Name: Factory Location: TW9 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A5NW (W)	955	8	519211 175603
179	**Points of Interest - Public Infrastructure** Name: New Cemetery Location: SW14 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A10NW (W)	156	8	520015 176111
180	**Points of Interest - Public Infrastructure** Name: Rubbish Clearance Unlimited Location: 10-12 Sheen La, Mortlake, London, SW14 8LL Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A11SW (SE)	164	8	520458 175778
180	**Points of Interest - Public Infrastructure** Name: Rubbish Clearance Unlimited Location: 10-12 Sheen Lane, London, SW14 8LL Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A11SW (SE)	164	8	520458 175778
180	**Points of Interest - Public Infrastructure** Name: Mortlake Rail Station Location: SW14 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A11SW (SE)	167	8	520467 175773
180	**Points of Interest - Public Infrastructure** Name: Mortlake Station Location: Sheen Lane, SW14 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A11SW (SE)	167	8	520467 175773
180	**Points of Interest - Public Infrastructure** Name: Pace Mortlake Service Station Location: 16-26 Sheen Lane, London, SW14 8LW Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A11SW (S)	246	8	520479 175692
180	**Points of Interest - Public Infrastructure** Name: Esso Location: 16-26 Sheen Lane, London, SW14 8LW Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A11SW (S)	246	8	520479 175692
180	**Points of Interest - Public Infrastructure** Name: Pace Mortlake Sstn Location: 16-26 Sheen Lane, London, SW14 8LW Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A11SW (S)	246	8	520479 175692
180	**Points of Interest - Public Infrastructure** Name: MRH Mortlake Location: 16-26 Sheen Lane, London, SW14 8LW Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A11SW (S)	246	8	520479 175692
181	**Points of Interest - Public Infrastructure** Name: Mortlake Crematorium Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A10NW (NW)	209	8	520028 176256
181	**Points of Interest - Public Infrastructure** Name: Mortlake Crematorium Location: TW9 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A10NW (NW)	236	8	520010 176277

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
181	**Points of Interest - Public Infrastructure** Name: The Mortlake Crematorium Board Location: Kew Meadow Path, Richmond, TW9 4EN Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A10NW (NW)	241	8	519999 176274
181	**Points of Interest - Public Infrastructure** Name: Mortlake Crematorium Board Location: Kew Meadow Path, Richmond, TW9 4EN Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A10NW (NW)	241	8	519999 176274
182	**Points of Interest - Public Infrastructure** Name: Mortlake Cemetery Location: Clifford Avenue, London, SW14 7BU Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A10SW (W)	275	8	519857 175958
182	**Points of Interest - Public Infrastructure** Name: New Cemetery Location: SW14 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A10SW (W)	281	8	519851 175951
183	**Points of Interest - Public Infrastructure** Name: Hammersmith New Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A10NW (W)	287	8	519880 176140
183	**Points of Interest - Public Infrastructure** Name: Hammersmith New Cemetery Location: SW14 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A10NW (W)	310	8	519854 176139
184	**Points of Interest - Public Infrastructure** Name: North Finchley Bus Station Location: 88 Kingsway, London, SW14 7HW Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A10SW (SW)	335	8	519828 175709
185	**Points of Interest - Public Infrastructure** Name: Institue of Cemetery & Creamatorium Management Location: The Gate House, Kew Meadow Path, Richmond, TW9 4EN Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A14SW (NW)	349	8	519971 176406
185	**Points of Interest - Public Infrastructure** Name: Confederation of Burial Authorities Location: The Gate House, Kew Meadow Path, Richmond, TW9 4EN Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to address or location	A14SW (NW)	349	8	519971 176406
186	**Points of Interest - Public Infrastructure** Name: Bus Station Location: SW14 Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A11SE (E)	404	8	520995 175753
187	**Points of Interest - Public Infrastructure** Name: Burial Ground (Disused) Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A7NE (SE)	431	8	520866 175601
187	**Points of Interest - Public Infrastructure** Name: Burial Ground (Disused) Location: SW14 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A7NE (SE)	431	8	520867 175602

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
188	**Points of Interest - Public Infrastructure** Name: North Sheen Cemetery (Fulham) Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A9NE (W)	479	8	519671 176132
188	**Points of Interest - Public Infrastructure** Name: North Sheen Cemetery Location: TW9 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A9NE (W)	499	8	519650 176133
189	**Points of Interest - Public Infrastructure** Name: North Sheen Cemetery Location: TW9 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A9SE (W)	492	8	519641 175928
190	**Points of Interest - Public Infrastructure** Name: Waste and Recycling Centre Location: Whitcome Mews, TW9 Category: Infrastructure and Facilities Class Code: Recycling Centres Positional Accuracy: Positioned to address or location	A14SW (NW)	498	8	519918 176558
190	**Points of Interest - Public Infrastructure** Name: Waste and Recycling Centre Location: Not Supplied Category: Infrastructure and Facilities Class Code: Recycling Centres Positional Accuracy: Positioned to an adjacent address or location	A14SW (NW)	507	8	519887 176544
191	**Points of Interest - Public Infrastructure** Name: Mortlake Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A12SW (SE)	523	8	521084 175672
191	**Points of Interest - Public Infrastructure** Name: Mortlake Cemetery Location: SW14 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A12SW (SE)	524	8	521084 175671
192	**Points of Interest - Public Infrastructure** Name: Securifix Security Systems Ltd Location: 391 Upper Richmond Road West, London, SW14 7NX Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A7NW (S)	534	8	520411 175346
193	**Points of Interest - Public Infrastructure** Name: Filter Bed Location: W4 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A16SW (NE)	657	8	521168 176431
194	**Points of Interest - Public Infrastructure** Name: East Sheen Service Station Location: 567 Upper Richmond Road West, London, SW14 7ED Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A5SE (SW)	675	8	519716 175312
194	**Points of Interest - Public Infrastructure** Name: Texaco Location: 567 Upper Richmond Road West, London, SW14 7ED Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A5SE (SW)	675	8	519716 175312
194	**Points of Interest - Public Infrastructure** Name: Star Service Stations Location: 567 Upper Richmond Road West, London, SW14 7ED Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A5SE (SW)	675	8	519716 175312

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
194	**Points of Interest - Public Infrastructure** Name: East Sheen Sstn Location: 567 Upper Richmond Road West, London, SW14 7ED Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A5SE (SW)	675	8	519716 175312
194	**Points of Interest - Public Infrastructure** Name: East Sheen Service Station Location: 567 Upper Richmond Road West, London, SW14 7ED Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A5SE (SW)	675	8	519716 175312
195	**Points of Interest - Public Infrastructure** Name: Sluice Location: TW9 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (NW)	681	8	519898 176764
196	**Points of Interest - Public Infrastructure** Name: Petropolis Location: 21-22 Popham Gardens, Lower Richmond Road, Richmond, TW9 4LJ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9SW (W)	810	8	519332 175744
196	**Points of Interest - Public Infrastructure** Name: Tcs Richmond Location: 21-22 Popham Gardens, Lower Richmond Road, Richmond, TW9 4LJ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9SW (W)	810	8	519332 175744
196	**Points of Interest - Public Infrastructure** Name: TCS Richmond Location: 22-24 Lower Richmond Road, Nitan Road, Richmond, Surrey, TW9 4LJ Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A9SW (W)	810	8	519332 175744
197	**Points of Interest - Public Infrastructure** Name: Sluice Location: TW9 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (NW)	814	8	519853 176891
198	**Points of Interest - Public Infrastructure** Name: Barnes Bridge Rail Station Location: Elm Bank Gardens, SW13 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A12NE (E)	830	8	521469 176210
198	**Points of Interest - Public Infrastructure** Name: Barnes Bridge Station Location: Elm Bank Gardens, SW13 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A12NE (E)	830	8	521469 176210
199	**Points of Interest - Public Infrastructure** Name: Richmond (London) Fire Station Location: Richmond Fire Station 323, Lower Richmond Road, Richmond, TW9 4PN Category: Central and Local Government Class Code: Fire Brigade Stations Positional Accuracy: Positioned to address or location	A9SW (W)	908	8	519243 175674
200	**Points of Interest - Public Infrastructure** Name: Chiswick New Burial Ground Location: W4 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A15NE (N)	933	8	520763 176974
200	**Points of Interest - Public Infrastructure** Name: Chiswick New Burial Ground Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A15NE (NE)	937	8	520774 176974

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
201	**Points of Interest - Public Infrastructure** Name: Outfall Location: SW15 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NW (SE)	937	8	521342 175336
202	**Points of Interest - Public Infrastructure** Name: Outfall Location: SW15 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8SW (SE)	962	8	521261 175228
203	**Points of Interest - Public Infrastructure** Name: Weir Location: SW13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A12SE (E)	999	8	521651 175824
204	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11SW (E)	95	8	520733 175918
204	**Points of Interest - Recreational and Environmental** Name: Playground Location: Mullins Path, SW14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11SW (E)	95	8	520733 175918
205	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A10SE (S)	98	8	520383 175831
205	**Points of Interest - Recreational and Environmental** Name: Playground Location: Cromwell Place, SW14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A10SE (S)	99	8	520383 175830
206	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11SE (SE)	196	8	520745 175804
206	**Points of Interest - Recreational and Environmental** Name: Playground Location: Mullins Path, SW14 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A11SE (SE)	199	8	520745 175800
207	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A11NE (NE)	261	8	520798 176235
208	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A5NE (SW)	535	8	519632 175660
208	**Points of Interest - Recreational and Environmental** Name: Playground Location: Somerton Avenue, TW9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A5NE (SW)	542	8	519625 175660

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	**Points of Interest - Recreational and Environmental** Name: Playground Location: Lambert Avenue, TW9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A5NE (SW)	636	8	519534 175635
209	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A5NE (SW)	638	8	519533 175632
210	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A16SW (NE)	783	8	521084 176672
210	**Points of Interest - Recreational and Environmental** Name: Playground Location: Staveley Gardens, W4 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A16SW (NE)	783	8	521084 176672
211	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A15NE (NE)	796	8	520904 176779
212	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A15NE (NE)	816	8	521008 176752
212	**Points of Interest - Recreational and Environmental** Name: Playground Location: Staveley Gardens, W4 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A15NE (NE)	817	8	521008 176753
213	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (SE)	961	8	521277 175243
213	**Points of Interest - Recreational and Environmental** Name: Playground Location: Dowdeswell Close, SW15 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8SW (SE)	961	8	521277 175243
214	**Points of Interest - Recreational and Environmental** Name: Playground Location: Dancer Road, TW9 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9NW (W)	970	8	519160 176002
214	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9SW (W)	973	8	519157 175994
215	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A8NE (SE)	991	8	521440 175367

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
216	**Underground Electrical Cables** Unique Feature Identifier: 266150 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10NE (W)	0	9	520175 176030
217	**Underground Electrical Cables** Unique Feature Identifier: 266149 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10SE (W)	1	9	520130 175977
218	**Underground Electrical Cables** Unique Feature Identifier: 265919 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10NE (W)	1	9	520174 176030
219	**Underground Electrical Cables** Unique Feature Identifier: 262659 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A10NE (W)	1	9	520174 176030
220	**Underground Electrical Cables** Unique Feature Identifier: 262658 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A10SE (W)	1	9	520130 175975
221	**Underground Electrical Cables** Unique Feature Identifier: 265918 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10SE (W)	2	9	520129 175972
222	**Underground Electrical Cables** Unique Feature Identifier: 259554 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A10NE (NW)	72	9	520176 176219
223	**Underground Electrical Cables** Unique Feature Identifier: 264605 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10NE (NW)	72	9	520174 176216
224	**Underground Electrical Cables** Unique Feature Identifier: 265920 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10NE (NW)	73	9	520177 176221
225	**Underground Electrical Cables** Unique Feature Identifier: 262657 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A10SE (SW)	101	9	520228 175721

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
226	**Underground Electrical Cables** Unique Feature Identifier: 264555 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10SE (SW)	101	9	520228 175720
227	**Underground Electrical Cables** Unique Feature Identifier: 266148 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A10SE (SW)	101	9	520228 175721
228	**Underground Electrical Cables** Unique Feature Identifier: 266151 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SE (N)	272	9	520354 176408
229	**Underground Electrical Cables** Unique Feature Identifier: 265921 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A14SE (N)	273	9	520354 176409
230	**Underground Electrical Cables** Unique Feature Identifier: 262660 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A14SE (N)	275	9	520356 176411
231	**Underground Electrical Cables** Unique Feature Identifier: 262656 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A6NE (S)	332	9	520267 175516
232	**Underground Electrical Cables** Unique Feature Identifier: 265915 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A6NE (S)	332	9	520267 175516
233	**Underground Electrical Cables** Unique Feature Identifier: 264604 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A6NE (S)	332	9	520268 175516
234	**Underground Electrical Cables** Unique Feature Identifier: 266152 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A15SW (N)	528	9	520532 176624
235	**Underground Electrical Cables** Unique Feature Identifier: 264556 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A15SW (N)	529	9	520532 176625

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
236	**Underground Electrical Cables** Unique Feature Identifier: 259555 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A15SW (N)	530	9	520533 176626
237	**Underground Electrical Cables** Unique Feature Identifier: 262655 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A6SE (S)	543	9	520344 175317
238	**Underground Electrical Cables** Unique Feature Identifier: 265917 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A6SE (S)	544	9	520343 175317
239	**Underground Electrical Cables** Unique Feature Identifier: 266147 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A6SE (S)	544	9	520344 175317
240	**Underground Electrical Cables** Unique Feature Identifier: 259553 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A7SW (S)	719	9	520430 175157
241	**Underground Electrical Cables** Unique Feature Identifier: 266146 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A7SW (S)	719	9	520431 175158
242	**Underground Electrical Cables** Unique Feature Identifier: 265916 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A7SW (S)	720	9	520429 175157
243	**Underground Electrical Cables** Unique Feature Identifier: 266153 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A15NW (N)	731	9	520684 176788
244	**Underground Electrical Cables** Unique Feature Identifier: 262661 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A15NW (N)	733	9	520685 176790
245	**Underground Electrical Cables** Unique Feature Identifier: 264206 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A15NW (N)	734	9	520685 176790

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
246	**Underground Electrical Cables** Unique Feature Identifier: 265927 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A2NE (S)	924	9	520387 174936
247	**Underground Electrical Cables** Unique Feature Identifier: 262654 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A2NE (S)	926	9	520388 174934
248	**Underground Electrical Cables** Unique Feature Identifier: 266145 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A2NE (S)	927	9	520388 174934
249	**Underground Electrical Cables** Unique Feature Identifier: 264207 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A15NE (NE)	993	9	520839 177009
250	**Underground Electrical Cables** Unique Feature Identifier: 266154 Cable Status: Commissioned Cable Type: Pilot (Communication) Record Last Updated: 4th June 2013	A15NE (NE)	994	9	520840 177010
251	**Underground Electrical Cables** Unique Feature Identifier: 262662 Cable Status: Commissioned Cable Type: Alternating Current Record Last Updated: 4th June 2013	A15NE (NE)	997	9	520841 177012

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
252	**Local Nature Reserves** Name: Dukes Hollow Multiple Area: N Area (m2): 2694.48 Source: Natural England Designation Date: 28th March 2012	A12NW (E)	659	10	521245 176321
253	**Marine Nature Reserves** Name: Thames Estuary Multiple Area: Y Area (m2): 10874320.9 Source: Natural England	A11NW (N)	6	10	520406 176118
254	**Nitrate Vulnerable Zones** Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A8NW (SE)	860	11	521273 175375

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Royal Borough of Kingston upon Thames - Environmental Health Department	April 2013	Annual Rolling Update
London Borough of Wandsworth - Environmental Health Department	January 2013	Annual Rolling Update
London Borough of Merton - Environmental Health Department	January 2015	Annual Rolling Update
London Borough of Hounslow - Contaminated Land Section	May 2014	Annual Rolling Update
Royal Borough of Kensington And Chelsea - Environmental Services	May 2014	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	October 2013	Annual Rolling Update
London Borough of Hammersmith And Fulham - Environmental Health Department	September 2013	Annual Rolling Update
London Borough of Brent - Environmental Health Department	September 2014	Annual Rolling Update
London Borough of Richmond upon Thames - Planning and Review Department	September 2014	Annual Rolling Update
Discharge Consents		
Environment Agency - Thames Region	April 2016	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Thames Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - Thames Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Environment Agency - South East Region - Kent & South London Area	April 2016	Quarterly
Environment Agency - South East Region - West Thames Area	April 2016	Quarterly
Environment Agency - Thames Region	April 2016	Quarterly
Local Authority Integrated Pollution Prevention And Control		
London Borough of Wandsworth - Environmental Health Department	August 2014	Annual Rolling Update
Royal Borough of Kingston upon Thames - Environmental Health Department	December 2013	Annual Rolling Update
London Borough of Hounslow - Environmental Health Department	February 2013	Annual Rolling Update
London Borough of Richmond upon Thames - Environmental Health Department	January 2015	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	July 2015	Annual Rolling Update
London Borough of Hammersmith And Fulham - Environmental Health Department	March 2014	Annual Rolling Update
London Borough of Brent - Environmental Health Department	March 2016	Annual Rolling Update
London Port Health Authority - Environmental Services	October 2014	Annual Rolling Update
London Borough of Merton - Environmental Health Department	September 2014	Annual Rolling Update
Royal Borough of Kensington And Chelsea - Environmental Health Department	September 2014	Annual Rolling Update
Local Authority Pollution Prevention and Controls		
London Borough of Wandsworth - Environmental Health Department	August 2014	Annual Rolling Update
Royal Borough of Kingston upon Thames - Environmental Health Department	December 2013	Annual Rolling Update
London Borough of Hounslow - Environmental Health Department	February 2013	Annual Rolling Update
London Borough of Richmond upon Thames - Environmental Health Department	January 2015	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	July 2015	Annual Rolling Update
London Borough of Hammersmith And Fulham - Environmental Health Department	March 2014	Annual Rolling Update
London Borough of Brent - Environmental Health Department	March 2016	Annual Rolling Update
London Port Health Authority - Environmental Services	October 2014	Annual Rolling Update
London Borough of Merton - Environmental Health Department	September 2014	Annual Rolling Update
Royal Borough of Kensington And Chelsea - Environmental Health Department	September 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
London Borough of Wandsworth - Environmental Health Department	August 2014	Annual Rolling Update
Royal Borough of Kingston upon Thames - Environmental Health Department	December 2013	Annual Rolling Update
London Borough of Hounslow - Environmental Health Department	February 2013	Annual Rolling Update
London Borough of Richmond upon Thames - Environmental Health Department	January 2015	Annual Rolling Update
London Borough of Ealing - Environmental Health and Trading Standards Division	July 2015	Annual Rolling Update
London Borough of Hammersmith And Fulham - Environmental Health Department	March 2014	Annual Rolling Update
London Borough of Brent - Environmental Health Department	March 2016	Annual Rolling Update
London Port Health Authority - Environmental Services	October 2014	Annual Rolling Update
London Borough of Merton - Environmental Health Department	September 2014	Annual Rolling Update
Royal Borough of Kensington And Chelsea - Environmental Health Department	September 2014	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	July 2012	Quarterly

Agency & Hydrological	Version	Update Cycle
Pollution Incidents to Controlled Waters Environment Agency - Thames Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - Thames Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - Thames Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - Thames Region - North East Area Environment Agency - Thames Region - South East Area	April 2016 April 2016	Quarterly Quarterly
Water Abstractions Environment Agency - Thames Region	January 2016	Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	April 2016	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones Environment Agency - Head Office	April 2016	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2016	Quarterly
Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability Environment Agency - Head Office	October 2013	As notified

Agency & Hydrological	Version	Update Cycle
BGS Groundwater Flooding Susceptibility		
British Geological Survey - National Geoscience Information Service	May 2013	Annually
Waste	**Version**	**Update Cycle**
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	May 2016	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Thames Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - Thames Region - North East Area	May 2016	Quarterly
Environment Agency - Thames Region - South East Area	May 2016	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South East Region - Kent & South London Area	April 2016	Quarterly
Environment Agency - Thames Region - North East Area	April 2016	Quarterly
Environment Agency - Thames Region - South East Area	April 2016	Quarterly
Local Authority Landfill Coverage		
London Borough of Brent - Environmental Health Department	May 2000	Not Applicable
London Borough of Ealing	May 2000	Not Applicable
London Borough of Hammersmith And Fulham - Environmental Health Department	May 2000	Not Applicable
London Borough of Hounslow - Environmental Health Department	May 2000	Not Applicable
London Borough of Merton - Environmental Health Department	May 2000	Not Applicable
London Borough of Richmond upon Thames	May 2000	Not Applicable
London Borough of Wandsworth - Environmental Health Department	May 2000	Not Applicable
Royal Borough of Kensington And Chelsea	May 2000	Not Applicable
Royal Borough of Kingston upon Thames - Environmental Health Department	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
London Borough of Wandsworth - Environmental Health Department	April 2003	Not Applicable
London Borough of Brent - Environmental Health Department	May 2000	Not Applicable
London Borough of Ealing	May 2000	Not Applicable
London Borough of Hammersmith And Fulham - Environmental Health Department	May 2000	Not Applicable
London Borough of Hounslow - Environmental Health Department	May 2000	Not Applicable
London Borough of Merton - Environmental Health Department	May 2000	Not Applicable
London Borough of Richmond upon Thames	May 2000	Not Applicable
Royal Borough of Kensington And Chelsea	May 2000	Not Applicable
Royal Borough of Kingston upon Thames - Environmental Health Department	September 2003	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Thames Region - North East Area	March 2003	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - Thames Region - North East Area	June 2015	Not Applicable
Environment Agency - Thames Region - South East Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	February 2016	Bi-Annually
Explosive Sites		
Health and Safety Executive	February 2016	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
London Borough of Ealing	February 2016	Annual Rolling Update
London Borough of Hounslow	February 2016	Annual Rolling Update
London Borough of Merton	February 2016	Annual Rolling Update
London Borough of Richmond upon Thames	February 2016	Annual Rolling Update
London Borough of Wandsworth - Technical Services	February 2016	Annual Rolling Update
Royal Borough of Kensington And Chelsea	February 2016	Annual Rolling Update
Royal Borough of Kingston upon Thames	February 2016	Annual Rolling Update
London Port Health Authority - Environmental Services	January 2008	Annual Rolling Update
London Borough of Brent	January 2016	Annual Rolling Update
London Borough of Hammersmith And Fulham - Environmental Protection	September 2014	Annual Rolling Update
Planning Hazardous Substance Consents		
London Borough of Hammersmith And Fulham - Environmental Protection	August 2015	Annual Rolling Update
London Borough of Ealing	February 2016	Annual Rolling Update
London Borough of Hounslow	February 2016	Annual Rolling Update
London Borough of Merton	February 2016	Annual Rolling Update
London Borough of Richmond upon Thames	February 2016	Annual Rolling Update
London Borough of Wandsworth - Technical Services	February 2016	Annual Rolling Update
Royal Borough of Kensington And Chelsea	February 2016	Annual Rolling Update
Royal Borough of Kingston upon Thames	February 2016	Annual Rolling Update
London Port Health Authority - Environmental Services	January 2008	Annual Rolling Update
London Borough of Brent	January 2016	Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2016	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	October 2015	Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	April 2016	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2016	Quarterly
Gas Pipelines National Grid	July 2014	Quarterly
Points of Interest - Commercial Services PointX	June 2016	Quarterly
Points of Interest - Education and Health PointX	June 2016	Quarterly
Points of Interest - Manufacturing and Production PointX	June 2016	Quarterly
Points of Interest - Public Infrastructure PointX	June 2016	Quarterly
Points of Interest - Recreational and Environmental PointX	June 2016	Quarterly
Underground Electrical Cables National Grid	January 2016	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural England	June 2015	Bi-Annually
Areas of Adopted Green Belt		
London Borough of Ealing	May 2016	As notified
London Borough of Hounslow	May 2016	As notified
London Borough of Richmond upon Thames	May 2016	As notified
Royal Borough of Kingston upon Thames	May 2016	As notified
Areas of Unadopted Green Belt		
London Borough of Ealing	November 201	As notified
London Borough of Hounslow	November 201	As notified
London Borough of Richmond upon Thames	November 201	As notified
Royal Borough of Kingston upon Thames	November 201	As notified
Areas of Outstanding Natural Beauty		
Natural England	April 2016	Bi-Annually
Environmentally Sensitive Areas		
Natural England	April 2016	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Natural England	April 2016	Bi-Annually
Marine Nature Reserves		
Natural England	April 2016	Bi-Annually
National Nature Reserves		
Natural England	April 2016	Bi-Annually
National Parks		
Natural England	March 2016	Bi-Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Annually
Ramsar Sites		
Natural England	April 2016	Bi-Annually
Sites of Special Scientific Interest		
Natural England	April 2016	Bi-Annually
Special Areas of Conservation		
Natural England	April 2016	Bi-Annually
Special Protection Areas		
Natural England	April 2016	Bi-Annually
World Heritage Sites		
English Heritage - National Monument Record Centre	September 2015	Bi-Annually

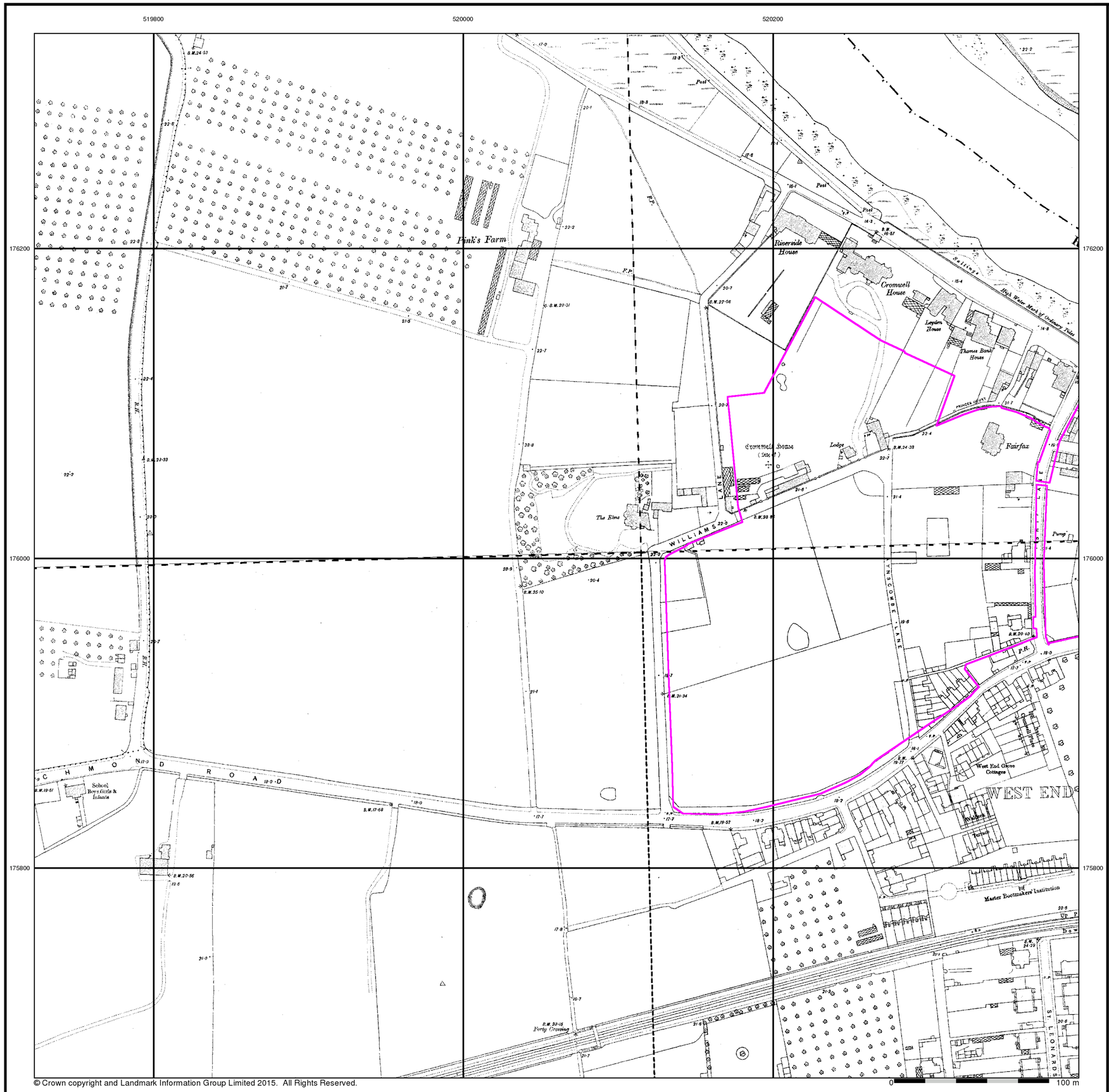
Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Peter Brett Associates	

Contact	Name and Address	Contact Details
2	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
3	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	**London Borough of Richmond upon Thames - Environmental Health Department** 4 Waldegrave Road, Teddington, Middlesex, TW11 8EN	Telephone: 020 8891 1411 Fax: 020 8891 7702 Website: www.richmond.gov.uk
5	**London Borough of Hounslow - Environmental Health Department** Civic Centre, Lampton Road, Hounslow, Middlesex, TW3 4DN	Telephone: 020 8583 2000 Website: www.hounslow.gov.uk
6	**London Borough of Richmond upon Thames** Civic Centre, 44 York Street, Twickenham, Middlesex, TW1 3BZ	Telephone: 020 8891 1411 Fax: 020 8891 7702 Website: www.richmond.gov.uk
7	**London Borough of Wandsworth - Environmental Health Department** Technical Services Department, Environmental Services Division, PO Box 47095, London, SW18 9AQ	Telephone: 020 8871 7874 Fax: 0181 871 6003 Website: www.wandsworth.gov.uk
8	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
11	**Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)** Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
12	**English Heritage - National Monument Record Centre** Kemble Drive, Swindon, Wiltshire, SN2 2GZ	Telephone: 01793 414600 Fax: 01793 414606 Email: nmrinfo@english-heritage.org.uk Website: www.english-heritage.org.uk
13	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.



Waterman

London

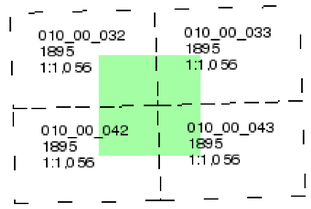
Published 1895

Source map scale - 1:1,056

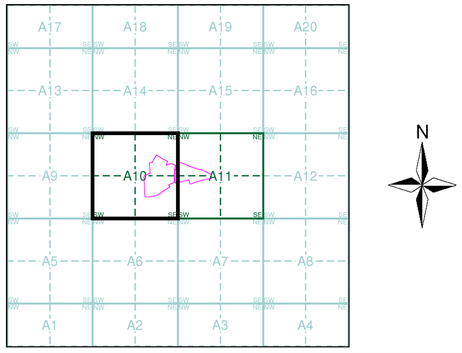
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)



Historical Town Plan - Segment A10



Order Details

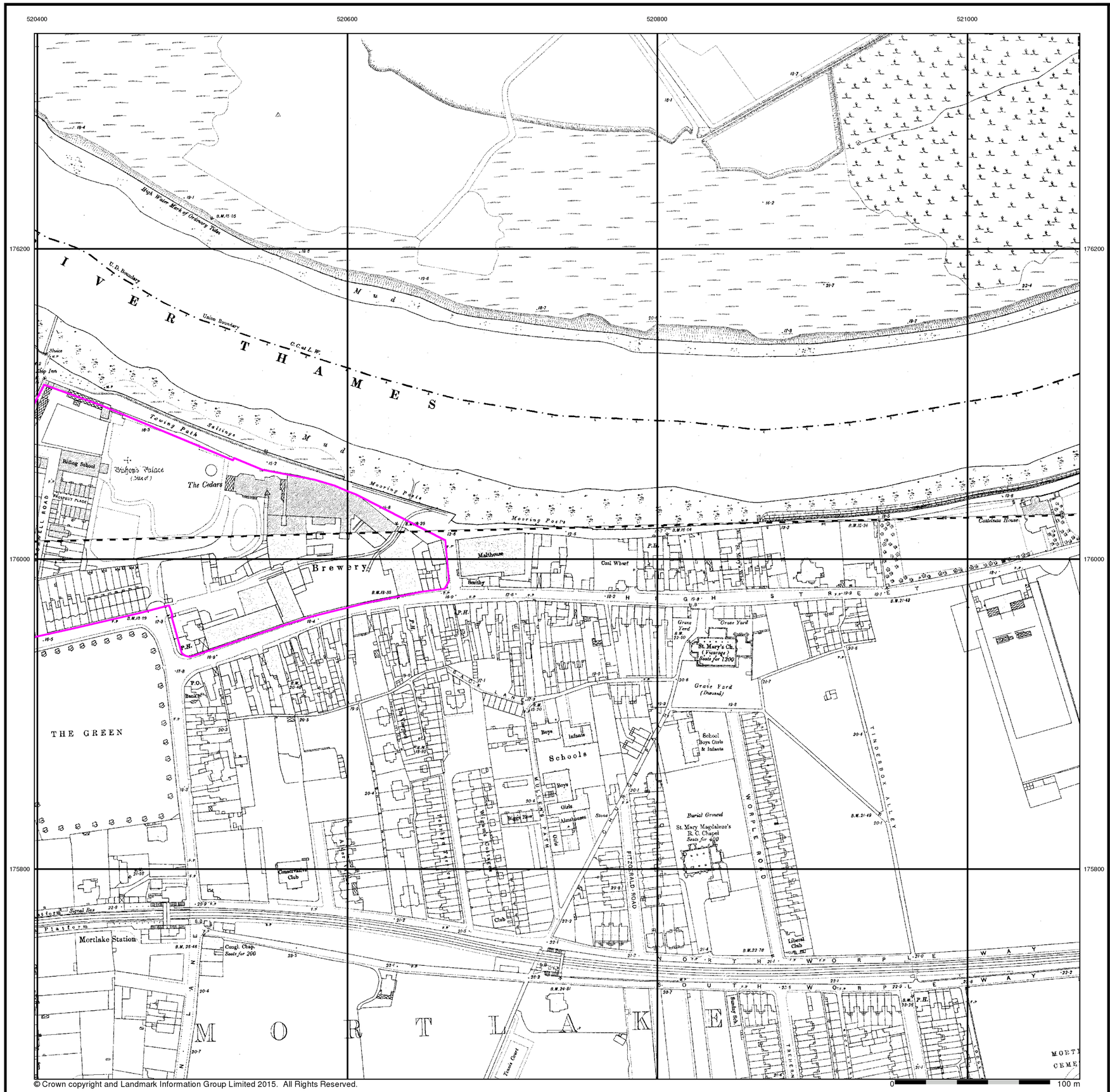
Order Number:	89303208_1_1
Customer Ref:	WIE10667-100
National Grid Reference:	520360, 175990
Slice:	A
Site Area (Ha):	8.56
Search Buffer (m):	0

Site Details

Site at, Mortlake, Richmond upon Thames

Landmark Information Group

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



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London

Published 1895

Source map scale - 1:1,056

The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

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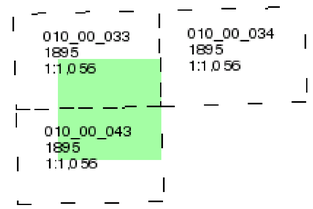
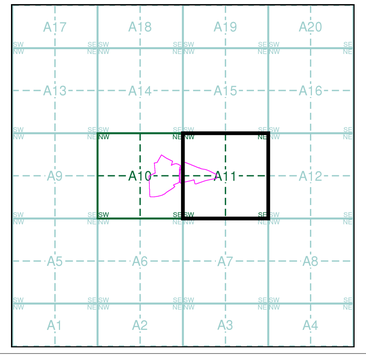


Historical Town Plan - Segment A11



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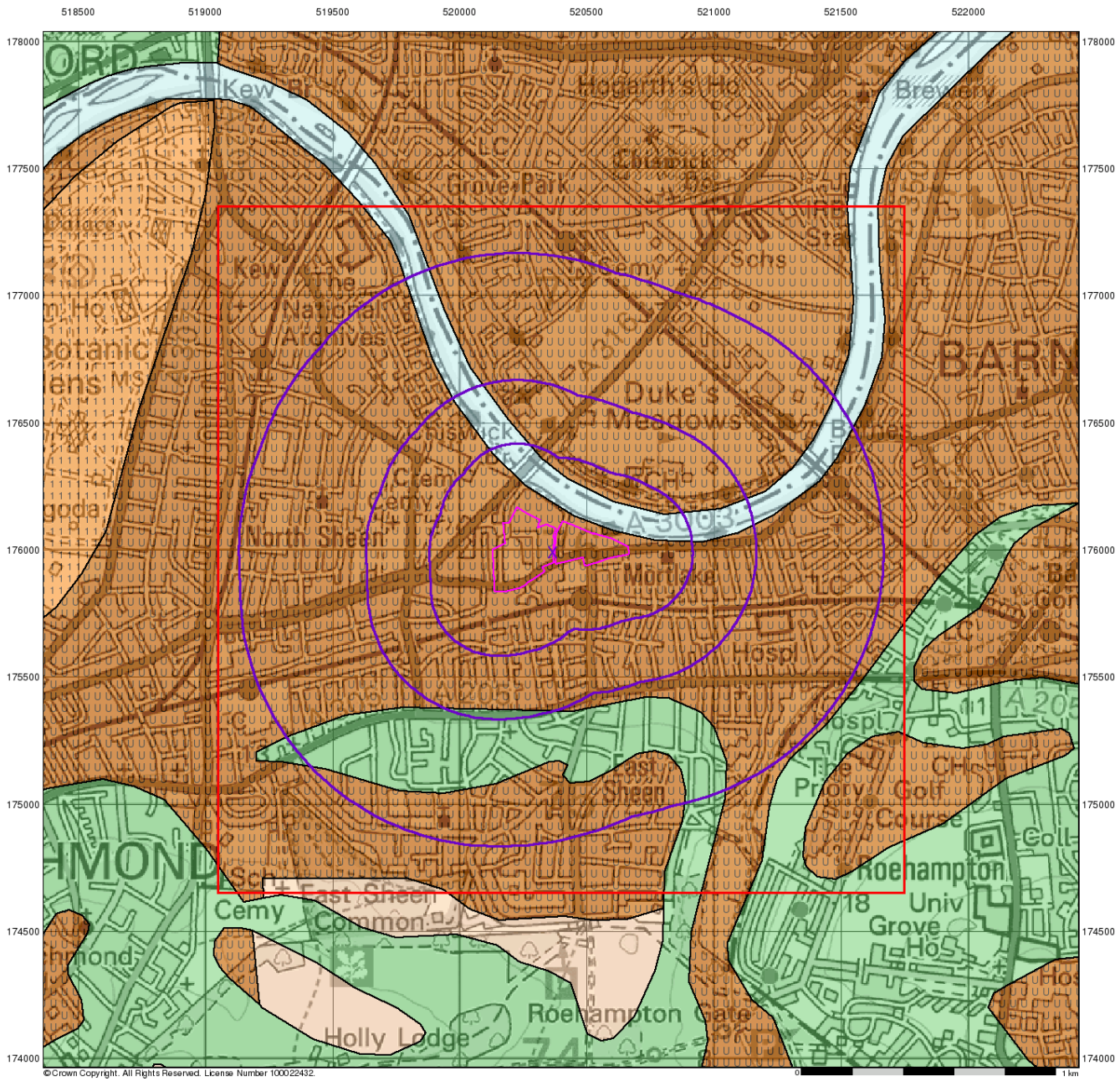


Groundwater Vulnerability

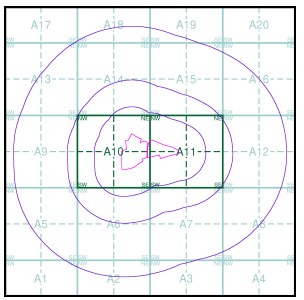
General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Agency and Hydrological

Geological Classes	Soil Classes
Major Aquifer (Highly Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Minor Aquifer (Variably Permeable)	High (H) 1, 2, 3, U
	Intermediate (I) 1, 2
	Low
Non Aquifer (Negligibly Permeable)	
Water or Sea	
Drift Deposit	

Site Sensitivity Context Map - Slice A



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Customer Ref:	WIE10667-100
National Grid Reference:	520360, 175990
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Site Area (Ha):	8.56
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Site Details

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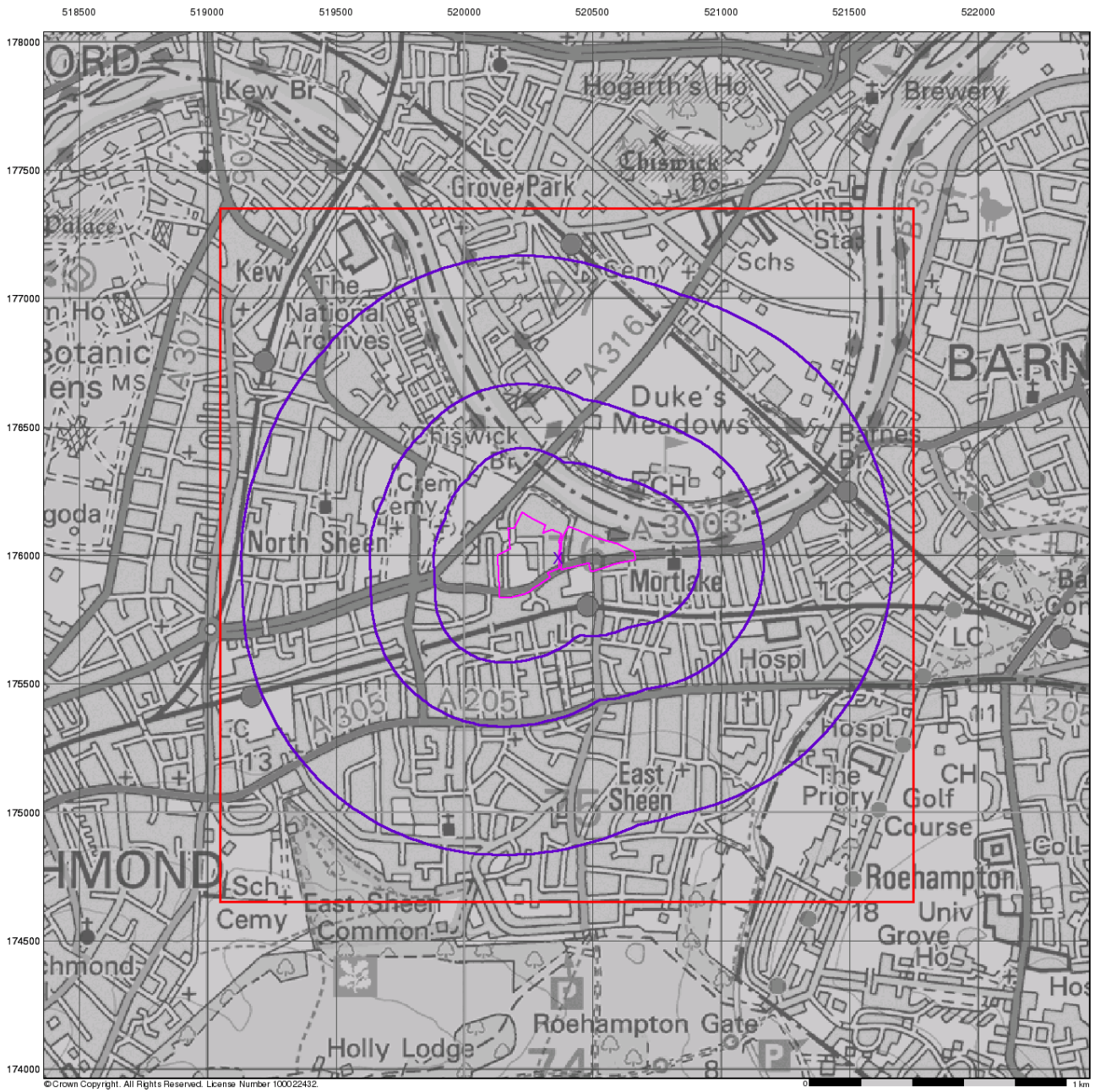


Bedrock Aquifer Designation

General

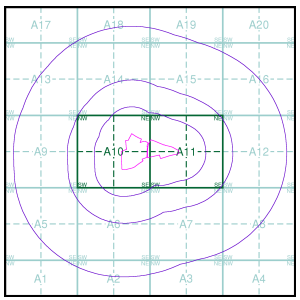
Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



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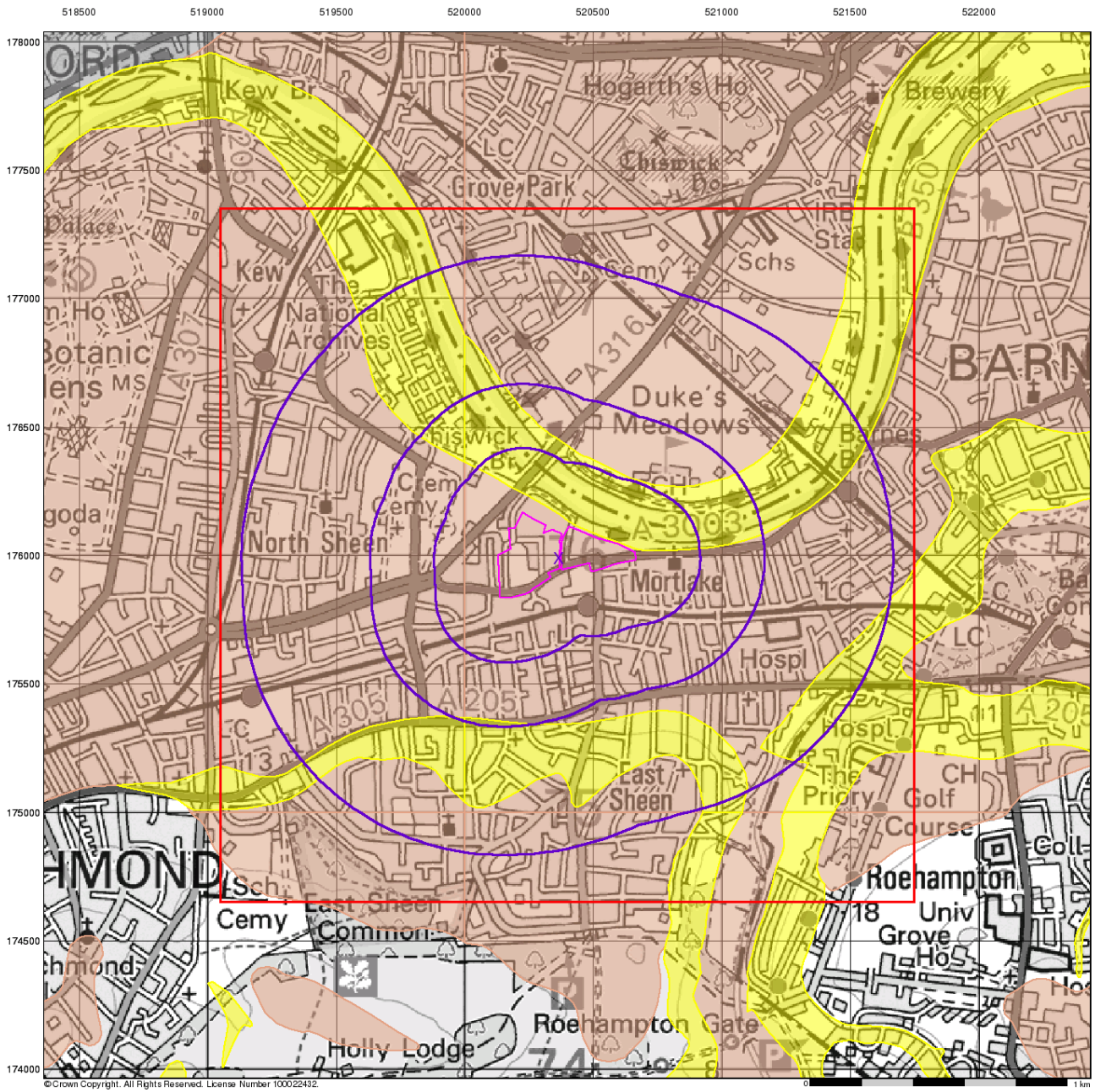


Superficial Aquifer Designation

General

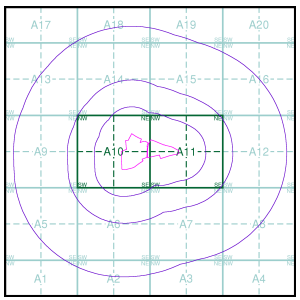
Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



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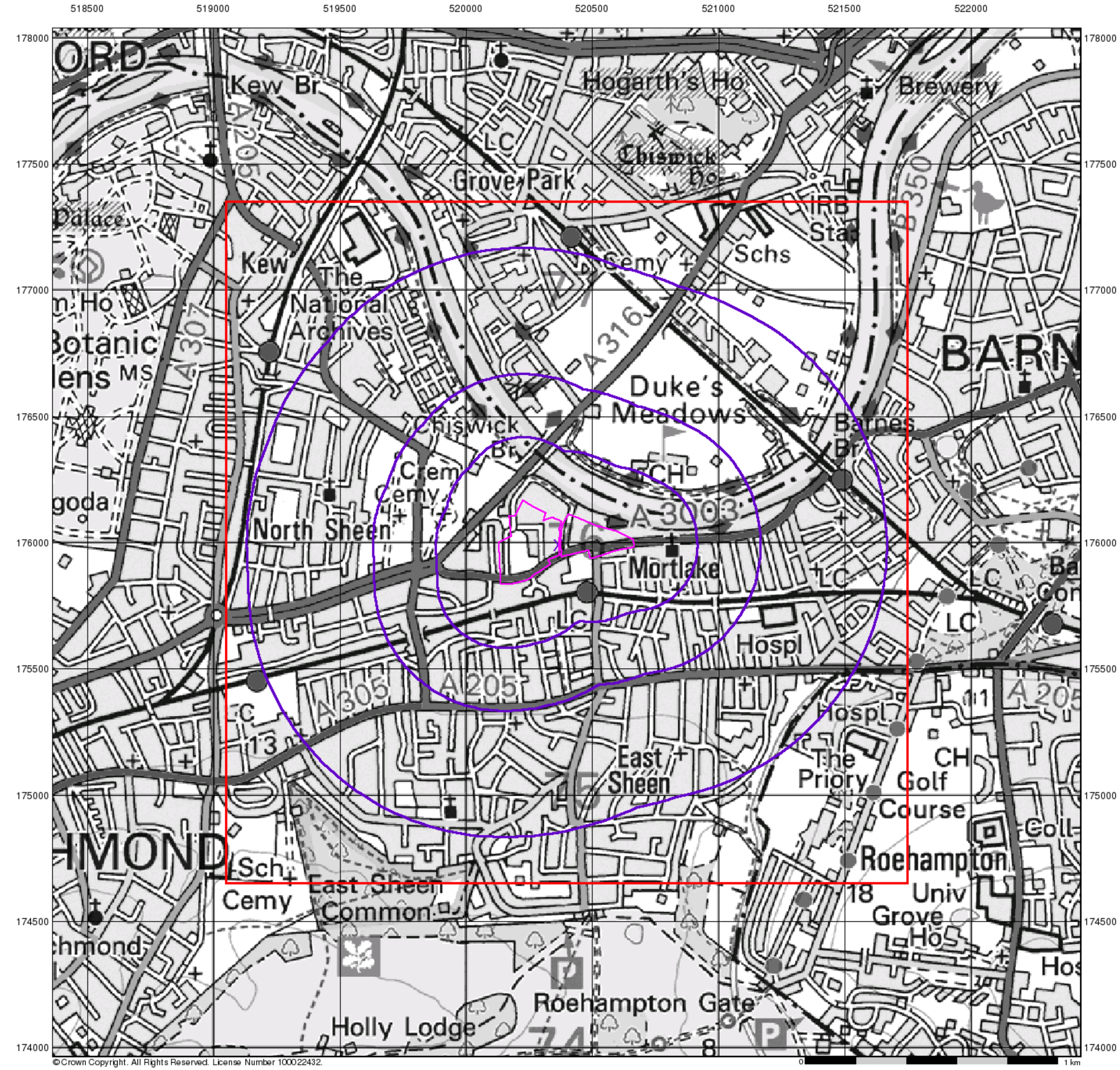


Waterman

Source Protection Zones

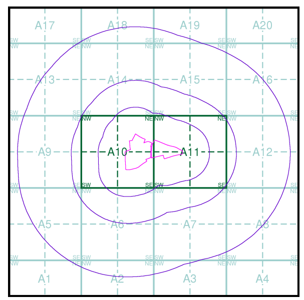
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)
- Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



N

Order Details

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Customer Ref:	WIE10667-100
National Grid Reference:	520360, 175990
Slice:	A
Site Area (Ha):	8.56
Search Buffer (m):	1000

Site Details

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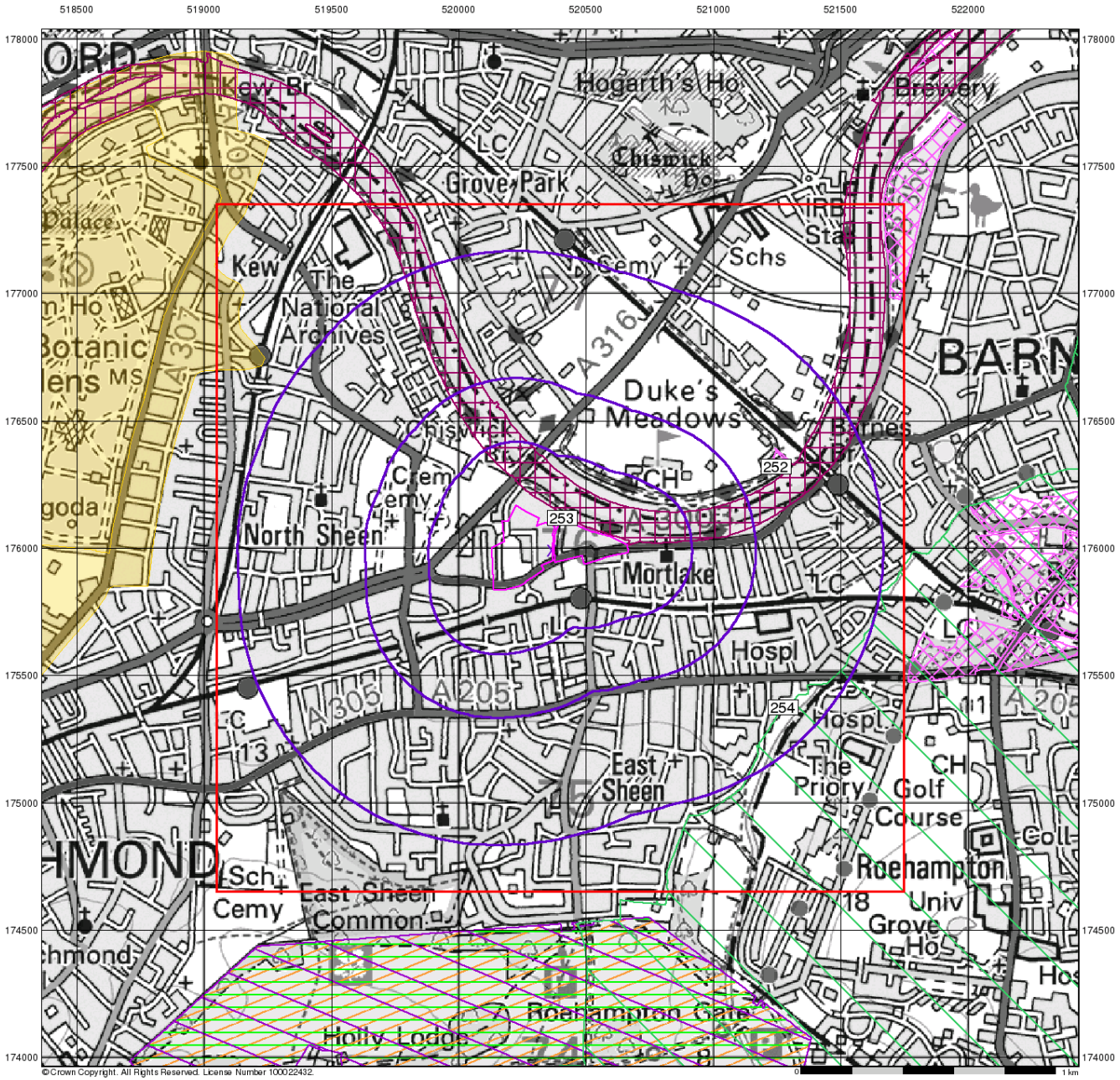
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Waterman

Sensitive Land Uses

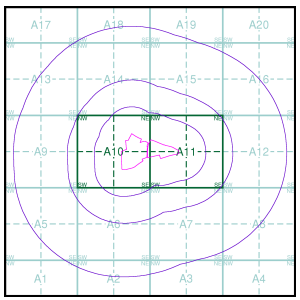
General

Specified Site | Specified Buffer(s) | Bearing Reference Point
Slice | Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



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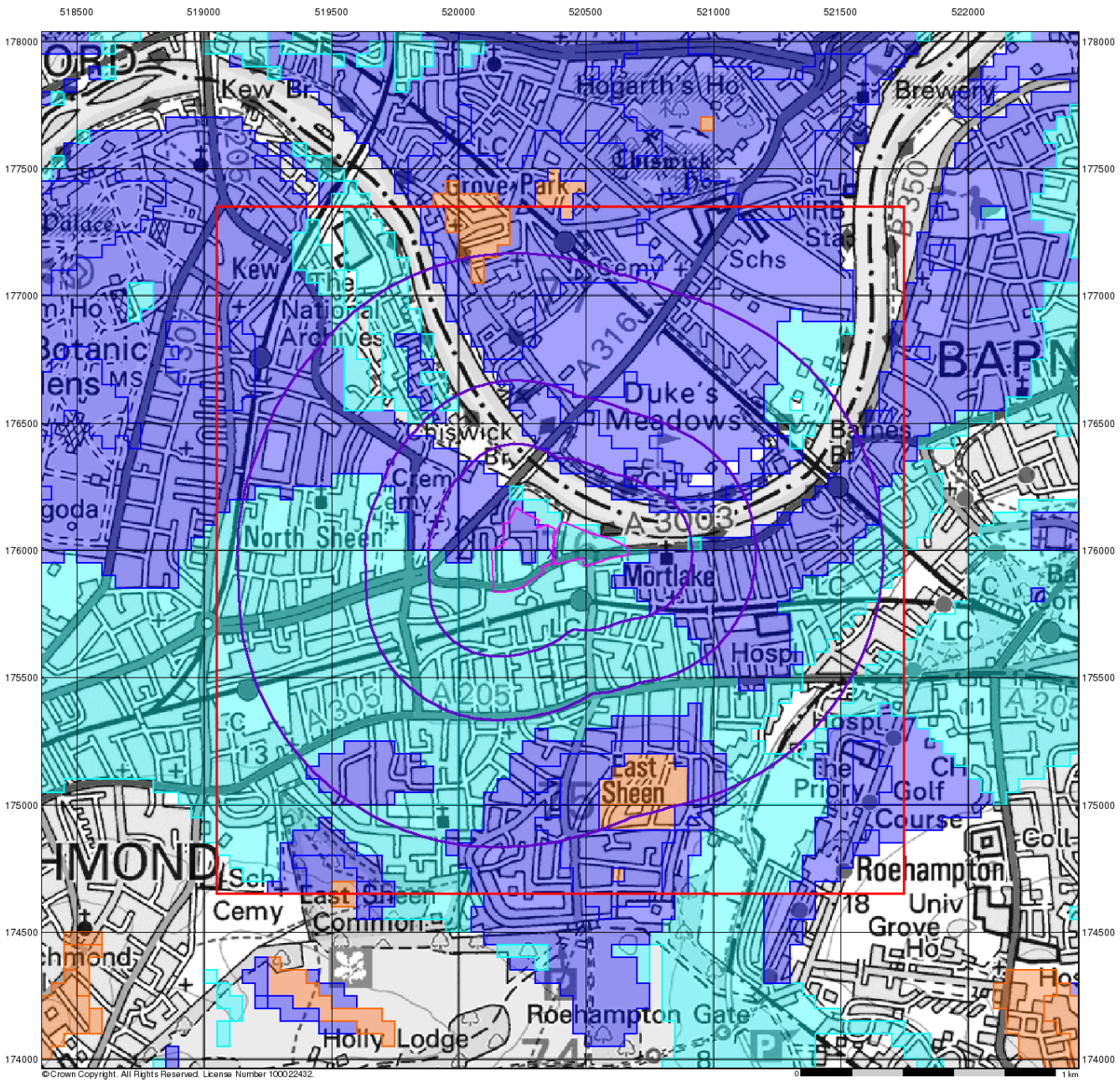

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BGS Flood GFS Data

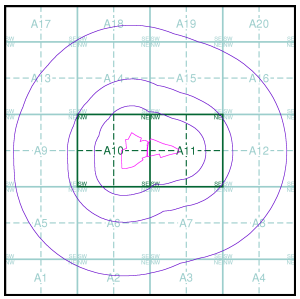
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



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Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WMGR	Infilled Ground	Artificial Deposit	Cenozoic - Cenozoic
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silty, Peaty, Sandy [Unlithified Deposits Coding Scheme]	Flandrian - Flandrian
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	KPGR	Kempton Park Gravel Formation	Sand and Gravel	Devensian - Devensian
	LASI	Langley Silt Member	Clay and Silt	Devensian - Devensian
	TPGR	Taplow Gravel Formation	Sand and Gravel	Wolstonian - Wolstonian
	BHT	Boyn Hill Gravel Member	Sand and Gravel	Wolstonian - Hoxnian
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LC	London Clay Formation	Clay and Silt	Eocene - Eocene

Waterman

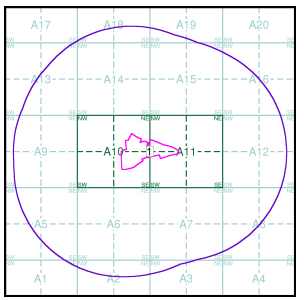
Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	**1**
Map Sheet No:	**270**
Map Name:	**South London**
Map Date:	**1998**
Bedrock Geology:	**Available**
Superficial Geology:	**Available**
Artificial Geology:	**Available**
Faults:	**Not Supplied**
Landslip:	**Available**
Rock Segments:	**Not Supplied**

Geology 1:50,000 Maps - Slice A



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Order Number:	89303208_1_1
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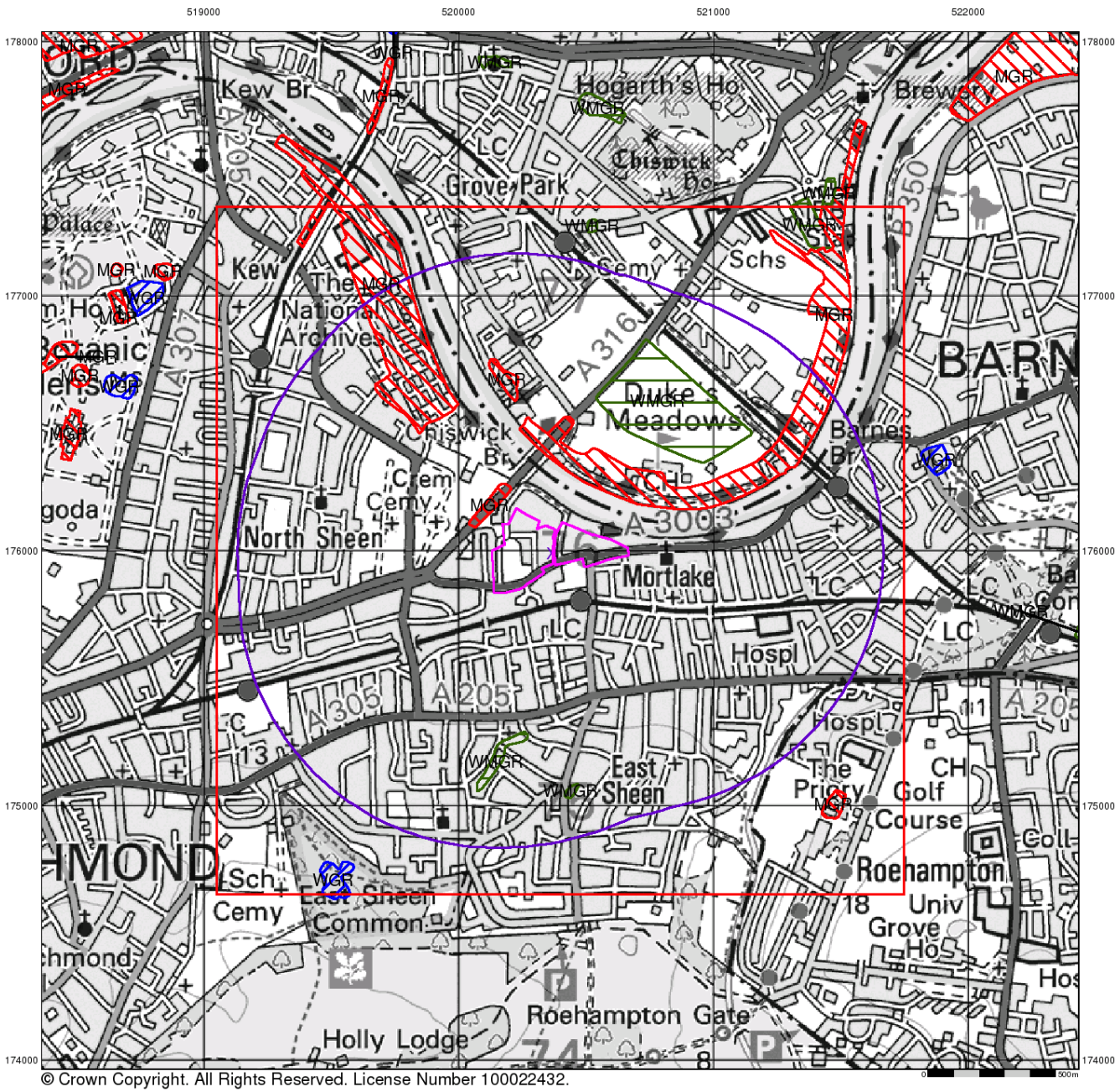


Artificial Ground and Landslip

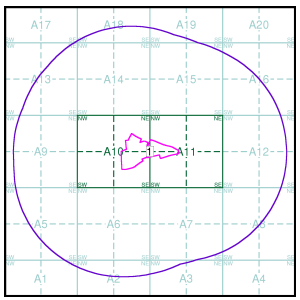
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



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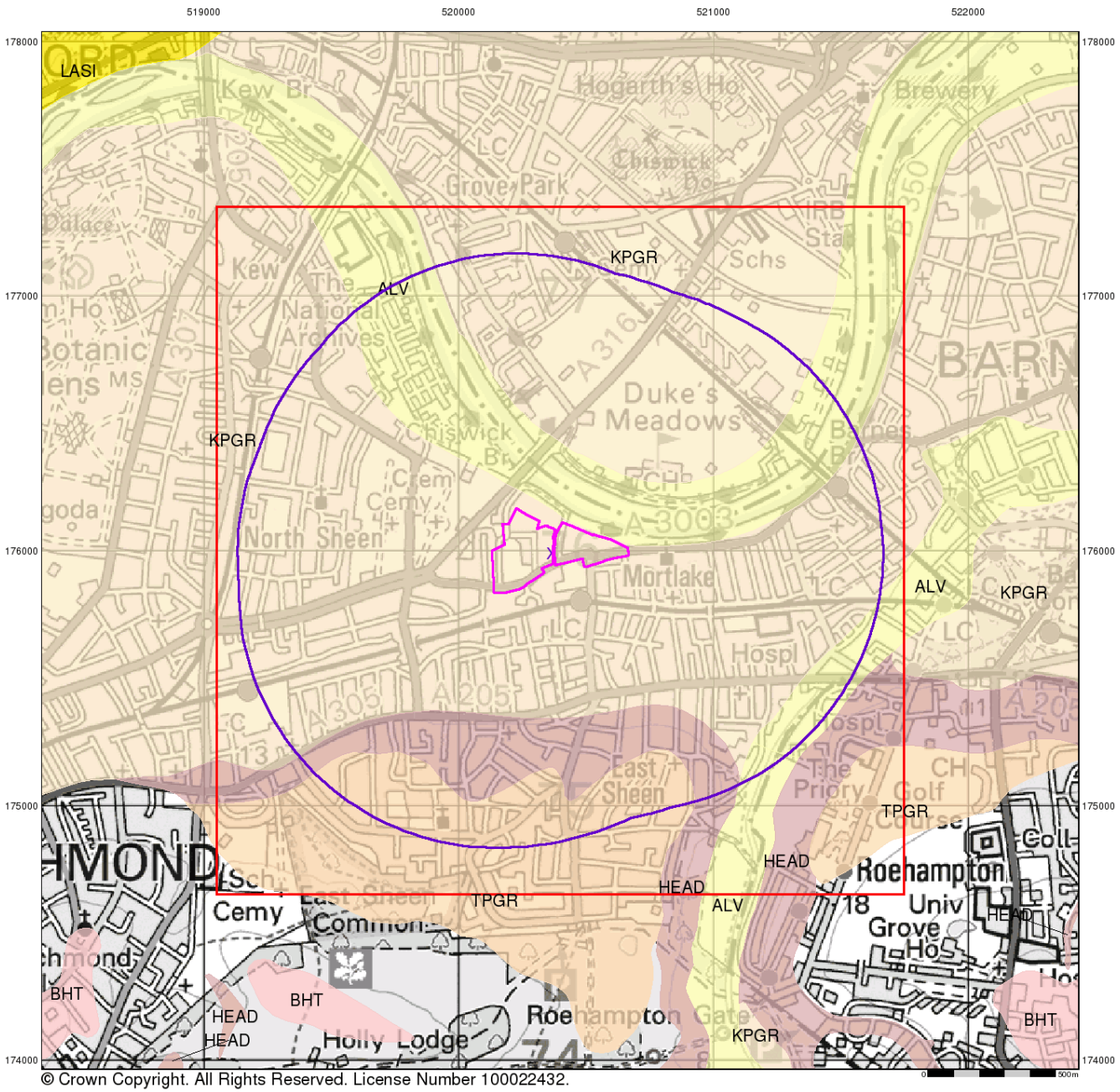


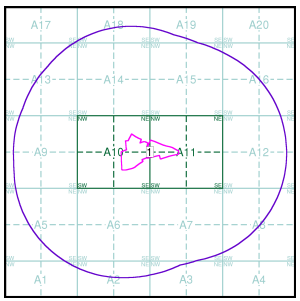
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



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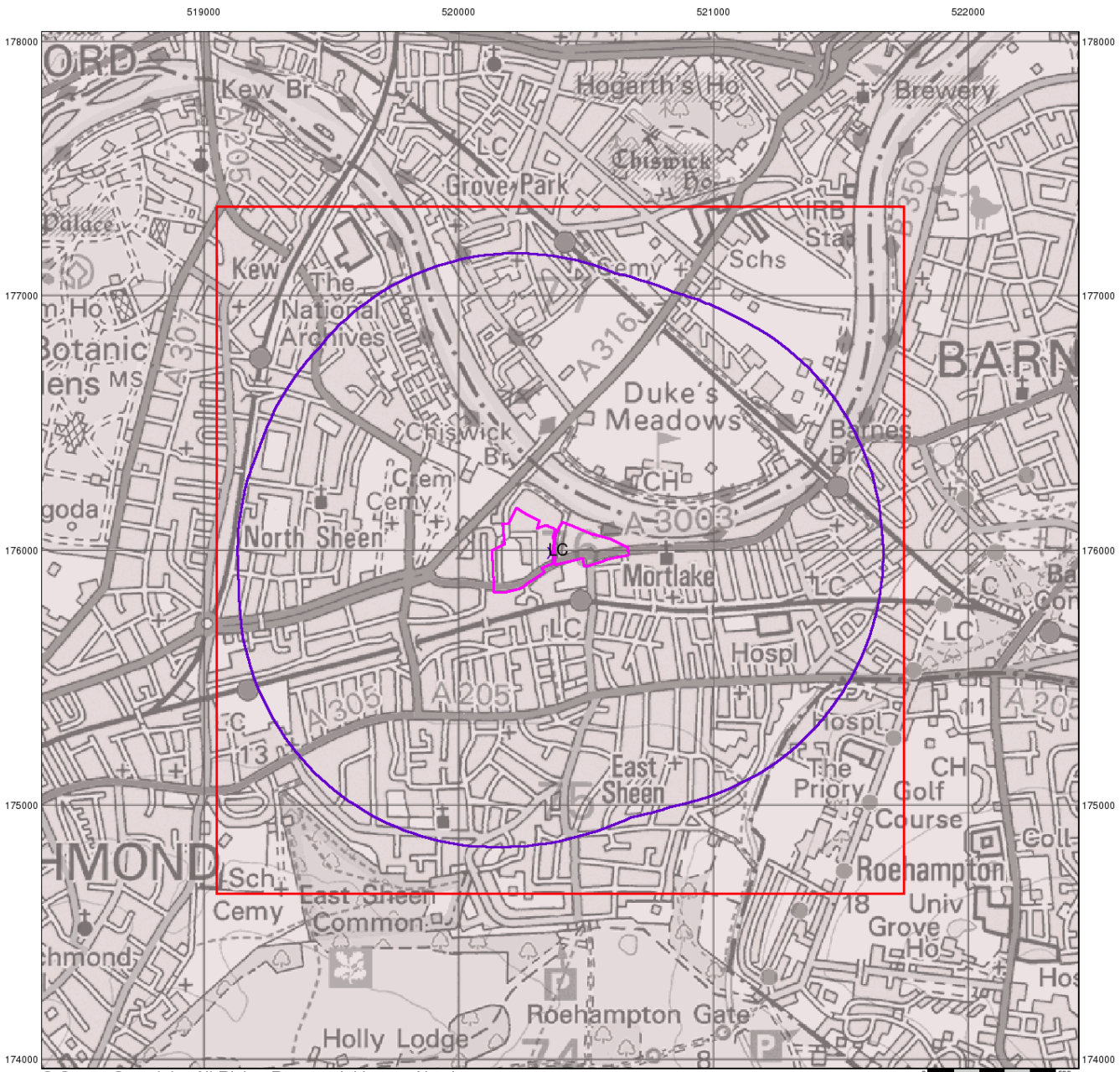


Bedrock and Faults

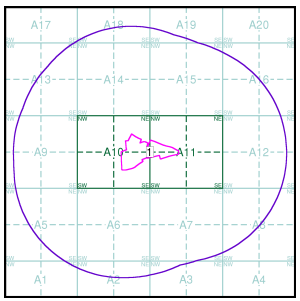
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



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National Grid Reference:	520360, 175990
Slice:	A
Site Area (Ha):	8.56
Search Buffer (m):	1000

Site Details:

Site at, Mortlake, Richmond upon Thames

Landmark Information Group
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