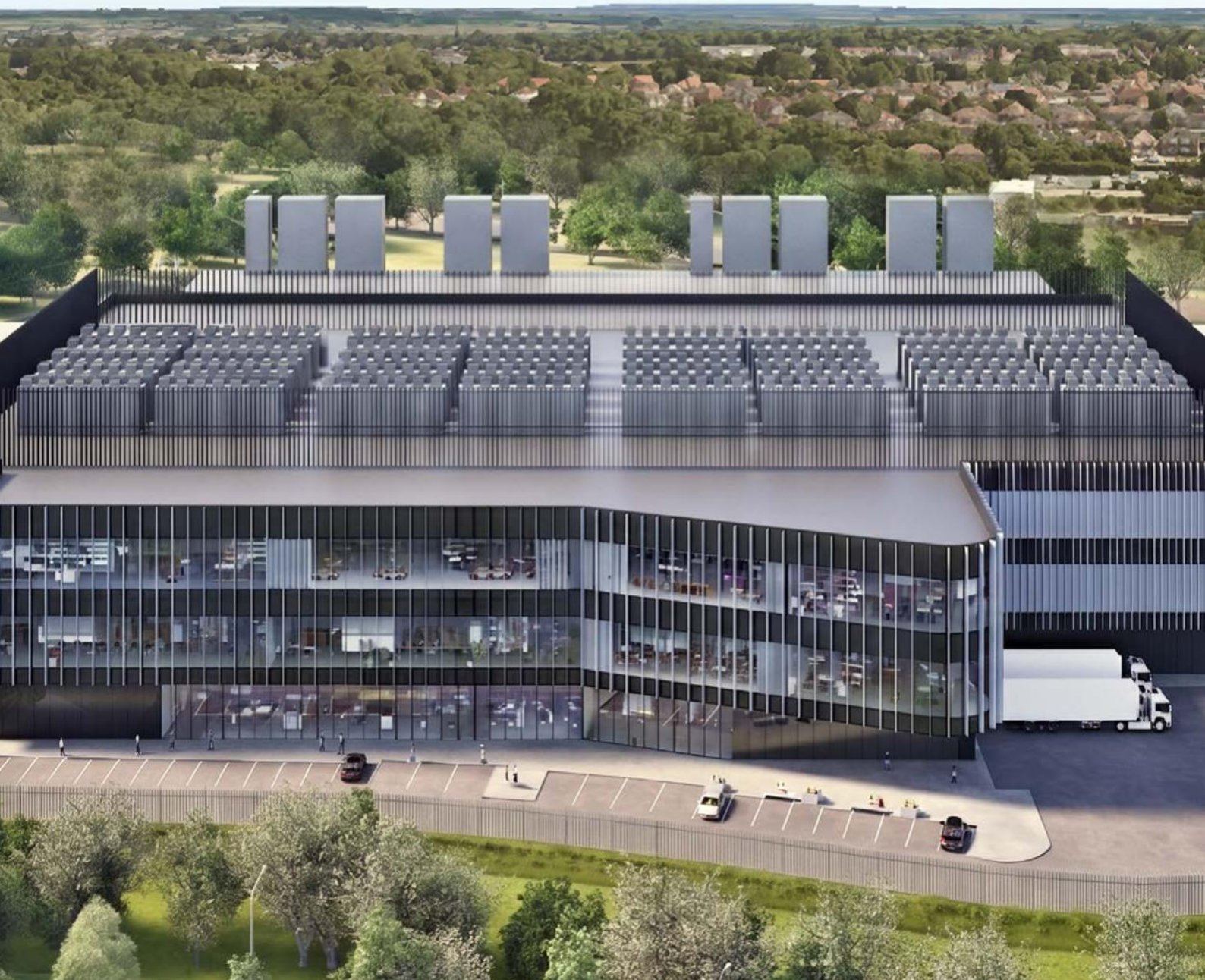


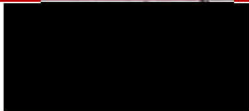


Thames Valley Park Data Centre

Geotechnical & Contamination Desk Study

Onyx Geo | On Behalf of FH Trustees
Revision 01 | September 2026



Project Number	261002	Date	18/03/26
Site Address	Microsoft, Thames Valley Park Drive, Reading, RG6 1WG	Client	BCS Consulting Ltd.
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1	07/08/2026	Planning updates	SC	AC

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Please see Appendix A for limitations to the current investigation and report.

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1 INTRODUCTION

1.1 INSTRUCTION AND APPOINTMENT

Onyx Geo Consulting Ltd (referred to as Onyx Geo) was commissioned by our client, BCS Consulting Ltd. on behalf of FH Trustees and FH Trustees 2 as trustees of the Mapeley Beta HL Unit Trust to carry out a Phase I Desk Study for the site Thames Valley Park Data Centre.

The site is located at Microsoft Campus, Thames Valley Park, Reading, RG6 1WG. The investigation area is limited to land within the site boundaries as shown on Figures 1 and 2, in Appendix B. This boundary has been taken from initial information provided by the client, but it should be noted that they may change as the project proceeds.

The appointment was confirmed on the 27th February 2026 via email signed by Andy Norman of BCS Consulting Ltd.

The work was carried out based on Onyx Geo's fee proposal letter dated 18th February 2026, Quote Ref: Q261008, including the outlined Terms and Conditions. The quotation serves as the formal agreement between Onyx Geo and the Client.

1.2 PROPOSED DEVELOPMENT

We understand that development proposals are at an outline phase and no specific development layouts have been provided to Onyx Geo. However, we understand that outline planning application (all matters reserved except for Access) for demolition of existing buildings and the construction of a data centre (Use Class B8), fuel cells for energy generation, ancillary office space and associated plant, drainage, backup power generation, car parking, landscaping, engineering works and internal maintenance access roads is to be sought.

To establish the minimum requirements for the scope and content of geotechnical investigations, BS EN 1997-1:2004+A1:2013 (Eurocode 7) requires the complexity of each geotechnical design, along with the associated risks, to be identified. The geotechnical design categories range between 1 to 3 with increasing complexity.

The proposal for the site would be considered as Category 2 structure, based on the anticipated development.

1.3 AIMS AND OBJECTIVES

The purpose of this investigation is to identify and where possible quantify ground related risks which may impact the proposed development. The specific objectives are:

- Determine the geology, hydrogeology, hydrology and development history of the site;
- Undertake a site walkover;
- Create a preliminary conceptual model of the site, identifying potential pollutant linkages that may affect identified on and off-site receptors; and,
- Provide guidance on the potential geotechnical and contaminative risks present on site to aid the design process and to inform planning / risk management processes.

1.4 PREVIOUS REPORTS

No previous reports for the site have been made available to Onyx Geo.

1.5 REGULATORY FRAMEWORK, GUIDANCE AND BEST PRACTICE

The regulatory framework within which we undertake contaminated land assessments is detailed in Appendix G. This assessment of the site has been undertaken following guidance and British standards:

- Part2A Environmental Protection Act 1990
- Contaminated Land Statutory Guidance 2012
- BS 5930:2015+A1:2020 Code of Practice for Ground Investigations.
- BS 10175:2026 Code of Practice Investigation of potentially contaminated sites.
- National Planning Policy Framework

1.6 LIMITATIONS

At the time of writing no proposed development plans have been made available to Onyx Geo and the site boundaries have been taken from client provided information and may be subject to change. This could limit our interpretation of potential on site or offsite sources of contamination and the impact of that on future receptors. Further the assessment is based on publicly available information available at time of writing. Several potential sources of historical information for the site are behind confidentiality restrictions or paywalls, and as such have not been reviewed as part of this report. This includes a historical site investigation from the 1990s and non-coal mining records. These datasets may include relevant information on the geotechnical and contaminated land hazards at the site. Should these become available then the report will need to be updated accordingly.

2 PHASE I – DESK STUDY

2.1 SITE LOCATION AND DESCRIPTION

The site is located at Microsoft Campus, Thames Valley Park Drive, Reading, RG6 1WG (grid ref. 474714, 174105) as shown in Figure 1, site location plan in Appendix B. Site photographs taken during the walkover are included in Appendix C. The site extends to approximately 5.3 hectares.

The site is located on the eastern side of the Thames Valley Park and currently comprises three large 4 – 5 storey office buildings. Running west to east the buildings are known as buildings 1, 2 and 3. At the time of the walkover only office building 1 was still in use with buildings 2 and 3 fenced off with Heras fencing.

Building 1 and 2 were noted to have partial basements, building 1 had a substation and building 2 included an under-croft carpark. An access road forms the northern boundary of the site with car parking located between the northern boundary and the office buildings. The surfacing of the car parking area is brick paving with strips of hedges separating the car parking spaces. The surfacing appears to be in good condition.

To the south of the office buildings is further car parking extending to the southern boundary of the site. The hardstanding is a mix of brick paving and black top surfacing all in a good condition. Immediately off site to the southeast and south is an area of woodland with a railway line, within a cutting located beyond. The trees within the wooded area are a mix of mature and immature deciduous trees including Maple, Silver Birch and Hawthorn. The wooded area appears boggy with some standing water within a very shallow ditch at the time of the walkover.

A strip of planted woodland aligned north to south forms the western boundary, beyond which are further office buildings and parking areas. A gas governor is located on the western boundary associated with the high-pressure gas main, markers for which are visible on the southern boundary where it enters site.

The general topography of the site slopes downwards from the southeast to the northwest. The site is elevated at approximately 52/50 m above ordnance datum (AOD) in the southeast boundary to approximately 39 m AOD on the north-west boundary. Approximate contour lines for the site are illustrated on Figure 2, Appendix B. The car parking to the south of the buildings is approximately 2-4m higher than office building 2 and 3 with a retaining wall between building 3 and the car parking to the south. There is a stepped bank with planting retaining the slope between the car parking and office building 2.

At the rear of the site, between the parking areas for buildings 2 and 3 there is a raised concrete plinth with ramp. Aerial images from 2026 suggest that while the site was in use this may have been used for a small structure such as a bike or bin store. Areas of planting and mature hedges split up the parking across the site. There are a number of bike stores, smoking sheds and benches located around the site. The car parks have overhead lighting.

The surrounding area is characterised by commercial, residential, and transport infrastructure uses, including rail and road corridors.

Office buildings are located immediately north and west of the site. Further north are the River Thames and Thames Valley Park Nature Reserve.

East of the site is an open, unvegetated area used for agricultural purposes (Sonning Meadows) and residential areas further afield. Immediately south of the site is a railway line, and beyond the railway is a residential area and the Reading substation.

The Client have informed Onyx Geo that Microsoft has confirmed that they do not intend to remain on the campus and will vacate entirely at the expiry of their lease in December 2027.

2.2 GEOLOGY AND HYDROGEOLOGY

The anticipated geology, hydrogeological conditions and local hydrology of the site have been determined by reference to the BGS¹, the groundsure.io website² and the Groundsure Enviro+Geo insight report provided by our client ref GS-S49-8F4-M1M-8O2 dated August 2025.

2.2.1 Artificial and made ground

The Groundsure report shows on the 1:10,000 scale mapping the railway cutting along the southern boundary as worked ground (void). An area of made ground is also mapped extending into the southeast corner of the site.

2.2.2 Superficial deposits

Superficial deposits of the Langley Silt Member and the Kempton Park Gravel Member are mainly mapped as present in the northern half of the site. The Boyn Hill Gravel Member is mapped in the far southeast corner of the site. All are part of the River Terrace Deposits.

Langley Silt Member (silt and clay) is mapped along northern site boundary. It varies from silt to clay and is commonly yellow-brown and massively bedded. It rests on the sand and gravel of other River Terrace Deposits, with a sharp base. It varies in thickness from 1 to 5 m and is generally about 3 m thick.

The Kempton Park Gravel Member (sand and gravel) is mapped to the south of the Langley Silt Member and extends from the southeast corner to the northeast of the site. The Kempton Park Gravels is the youngest of the three River Terrace Gravels that were laid down by the Thames. They were deposited in a braided river system, an estimated 5 km wide. Gravel dominated beds, generally less than 2m thick are cut through by broad shallow channels which are in-filled with tabular cross bedded gravelly sand in fining upward sequences. There are also impersistent beds of clayey and silty fine sand which are generally less than 1 m thick.

Boyn Hill Gravel Member (sand and gravel) is shown present in the far southeast of the site only. The Boyn Hill Gravel Member is characterised by sand and gravel with possible lenses of silt, clay or peat. It is poorly sorted gravel with locally tabular sand beds.

¹ British Geological Survey Geoindex (onshore) - Contains British Geological Survey materials © UKRI [2024]

² Groundsure.io website, <https://groundsurre.io/> accessed 2024

2.2.3 Bedrock

The Lambeth Group and the Seaford Chalk and Newhaven Chalk Formation (undifferentiated) are mapped on site. A boundary between the two is aligned approximately from the southwest corner to the northeast corner of the site.

The Lambeth Group is mapped mainly in the eastern half of the site. The Lambeth Group (formerly known as Woolwich and Reading Beds) tend to consist of grey and grey-brown interbedded fine sands silts and clays. There are sometimes shelly beds at the top and bottom of the formation.

The Seaford and Newhaven Chalk Formation is mainly mapped in the western half of the site. The Seaford Chalk and the Newhaven Chalk Formation comprises white weak to moderately weak chalk with many marl seams and some nodular flints.

Chalk is affected by its weathering, particularly the effects of dissolution. The top surface of the chalk is usually irregular and may include deep drift filled solution pipes for example. Chalk is also susceptible to frost action.

2.2.4 British Geological Survey (BGS) borehole records

There are 14 No. BGS borehole records for the site, of which 11 No. are reported as confidential and are not available for viewing online.

Three onsite historical trial pit records are available. Their locations are shown on Figure 2, Appendix B and summarised below:

- **SU77SW472:** machine excavated trial pit dated 1984. Topsoil to 0.35 m bgl, over; loose brown fine to medium sandy flint GRAVEL, with some silt and clay becoming finer with depth to 4.0 m bgl.
- **SU77SW987:** machine excavated trial pit dated 1984. Topsoil to 0.20 m, over; loose brown gravelly, silty clayey SAND with lenses of more clayey material, over; loose orange brown fine to medium sandy flint gravel to 4.20 m bgl.
- **SU77SW989:** machine excavated trial pit dated 1984. Topsoil to 0.30 m bgl, over; loose orange brown fine to medium sandy flint gravel to 1.40 m bgl, over; softy light green clay, over; structureless remoulded chalk containing lumps of intact chalk to 4.10 m bgl.

There are several off-site historical borehole records located within 60 m of the site boundaries. Two boreholes are selected based on their locations relative to the mapped bedrock (the Lambeth Group and the Seaford and Newhaven Chalk Formation) are summarised below:

- **SU77SW943:** 40 m northwest, cable percussion borehole dated 1984. Located in the mapped Chalk. CLAY to 1.80 m bgl, over; medium dense SAND with some chalk fragments to 3.0 m bgl, over; medium dense flint GRAVEL with chalk fragments to 4.80 m, over; structureless CHALK with lumps of intact chalk from 7.0 m bgl. Borehole terminated at 10.0 m bgl.
- **SU77SW944:** 65 m north of the site, cable percussion borehole dated 1984. Located in the mapped Lambeth Group. Soft, silty CLAY with some gravel to 1.65 m bgl, over; stiff silty CLAY to 4.0 m bgl, over; medium dense SAND to 4.45 m bgl, over; firm CLAY to 5.0 m bgl, over; dense SAND to 6.0 m bgl, over; firm silty CLAY 6.50 m bgl, over; very dense SAND to 10.20 m bgl, over; structureless CHALK to 11.0 m bgl.

Water was not encountered in the trial pits. Groundwater was only encountered in borehole SU77SW943 at 5.60 m bgl and had risen to 4.10 m bgl after 20 minutes. The approximate borehole locations are shown on Figure 2.

2.2.5 Hydrogeology

The superficial deposits of the Langley Silt Member are recorded as an unproductive stratum.

The Kempton Park Gravel Member and the Boyn Hill Gravel Member are recorded as Secondary A aquifers.

The bedrock of the Lambeth Group is also recorded as a Secondary A aquifer. The Chalk bedrock is a Principal aquifer.

The site is not mapped within a potable water source protection zone. There are no drinking water abstraction licences mapped within 500 m of the site boundary. The closest abstraction records relate to two historical groundwater abstraction licences dated from 1995 and are located 509 m to the southwest of the site. The licences permitted the abstraction of groundwater for make-up or top up water or for spray irrigation.

Two groundwater bodies covered by the Water Framework Directive (WFD) are recorded on site, namely the Thatcham Tertiaries and the Berkshire Downs Chalk. In 2019, the overall rating for the Thatcham Tertiaries was good and chemical rating was good; and for the Berkshire Downs Chalk the overall rating for was poor and chemical rating was poor.

Groundwater if present within the superficial deposits is anticipated to follow the sites topography and flow towards the northwest. The groundwater flow in the chalk aquifer is tentatively assumed to flow in an easterly direction. However, this is made based on a BGS hydrogeological map³ dated 1978.

2.3 HYDROLOGY

There are no surface water features mapped on site. The nearest mapped feature is a lake located 25m north of the site boundary. The Groundsure report shows two inland rivers approximately 83 m and 156 m to the north of the site. The River Thames is mapped approximately 510 m north of the site. The site is located in the River Thames (Reading to Cookham) catchment.

2.4 FLOOD RISK

The Groundsure report shows that the site is not located in an area at risk of flooding from rivers and the sea.

A small part of the site, between two of the existing office buildings is mapped as being at risk of a 1 in 30-year, 0.3 m to 1.0 m surface water flooding event. A 1 in 1000-year surface water flood risk event is mapped along the southern site boundary.

³ <https://largeimages.bgs.ac.uk/iip/hydromaps.html?id=south-west-chilterns.jp2>

A moderate risk of groundwater flooding is mapped for parts of the site. This approximately coincides with parts of the site where the superficial deposits are recorded i.e. land north of boundary between the southwest corner to the eastern site boundary. Land south of this is mapped as being at low or negligible risk from groundwater flooding.

2.5 ECOLOGY AND SENSITIVE SITES

A review of designated environmentally sensitive sites, as presented in the Groundsure report, has been conducted. The dataset references several sensitive areas, including Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Areas of Special Conservation (SAC), Special Protection Areas (SPA), Ramsar Sites, Local Nature Reserves, and records of Designated Ancient Woodland. However, none of the above are recorded on site or within 500 m of the site boundaries.

The site is listed as being within a nitrate vulnerable zone. The site also falls within a SSSI Impact Risk Zone.

2.6 SITE HISTORY

The history of the site has been determined by a search of the historical Ordnance Survey maps at 1:10,560, 1:10,000 1:2,500 included within the Groundsure Report available in Appendix D, internet searches and aerial imagery.

Table 1: Summary of site history

Date	On Site	Off Site
1872 1878 1879	Undeveloped open field. The southern boundary appears to partially extend over a railway cutting.	Footpath / land boundary present on the western extent more fields beyond. A field boundary and more fields are mapped to the immediate east of the site. A woodland in a cutting is present along the eastern boundary. A railway line in a cutting that is aligned east to west is shown immediately south of the site. A gravel pit is mapped 160 m to the southwest, but to the south of the railway line. The River Thames is mapped 510 m north of the site.
1898 1897-1900	No significant change.	A pumping station is mapped 75 m north of the site. The gravel pit 160 m to the southwest has expanded, but labelled as 'Old Gravel Pit' A small pit is marked 210 m to the northeast on the edge of a woodland. A disused brickwork is mapped 300 m west of the site. A reservoir is mapped 400 m to the east of the site.
1910-1913 1912-1913 1914	No significant change.	The fields to the south of the railway tracks are labelled as Allotment Gardens Kiln Farm is mapped 300 m west of the site, over the disused brickworks.

Date	On Site	Off Site
1932 1938	No significant change	The woodland south of the railway line has reduced in size. A number of small structures of unknown use are present along the land south of the cutting, within 100 m of the site. Residential developments are shown on land 200 -300 m to the southeast of the site.
1958 1960 1962 1963-1965 1963-67	Three possible overhead electricity transmission lines are present in the western half of the site aligned approximately north to south. A drain aligned north to south is present on or just within the length of western site boundary. No other significant change.	An area of raised ground is mapped immediately east of the southeast corner of the site. A significant expansion of the residential development is shown on land to the south of the railway line. A possible commercial land use on raised ground is mapped 100 m southwest of the site beyond the railway line. Electricity pylons are mapped 50 m west of the site and aligned north to south. Three unknown tanks are shown immediately west of the site. Railway sidings on an embankment are aligned north to south at 20 m west of the site boundary. A large building labelled electricity works is mapped 80 m west of the site. Tanks, chimneys, a winch and conveyors are associated with the works. To the south of the electricity works is second unlabelled building. A coal yard is labelled west of the second building. North of the electricity works is a cooling water channel that extends to the northwest towards the River Thames.
1972-74 1973 1972-77	No significant change, with the exception of a new field boundary shown on site	No significant change other than the electricity works is renamed power station.
1979-81	No significant change	No significant change.
1986-1990 1989-1993	No significant change	Large power station building to the west of the site is no longer present, the smaller building remains. A new road is shown in land to the north of the former power station building aligned approximately east to west.
1994	No significant change	All buildings related to the power station no longer mapped. Thames Valley Business Park mapped 120 m north of the site
1999 (aerial)	Current layout, namely three office blocks with car parking and soft landscaped areas	A landscaped park with a lake is shown to the immediate north of the site. Office buildings and car parking is present in land to the west, over the former power station footprint.
2001	No significant change	No significant change
2010 (aerial)	No significant change	Two office blocks are shown located adjacent to the northeast of the site.
2013 (aerial) 2019 (aerial) 2022 (aerial)	No significant change	No significant change

The site was predominantly mapped as open fields until the late 1990s when the current site layout is shown on Ordnance Survey mapping and aerial images. Earley Power Station was mapped present to the west of the site from the 1950s to the 1980s. From the mid-1990s the land surrounding the site to the north, west and east was mapped as being re-developed into the current Thames Valley Business Park. A railway line in a cutting has been mapped as being present to the south of the site from the late 19th Century until current date.

A review of online records⁴ indicates that the offsite power station was constructed in the early 1940s and supply started from 1942. It initially comprised a steam turbo-alternator fed from three international combustion boilers fired with pulverised coal. Two additional steam power alternators with combustion boilers were installed towards the mid/end of the 1940s. A jet engine powered gas turbine was installed in 1965, followed by a diesel-powered gas turbine. The coal powered steam plants were decommissioned in the 1970s and the remaining plant and power station by 1982.

2.7 GEOTECHNICAL AND ENVIRONMENTAL DATA REVIEW

A review the geoenvironmental data presented with the Groundsure report (ref: GS-S49-8F4-M1M-802 included in Appendix D) is provided below. Records at a distance greater than 100 m from the site boundary are not considered relevant, unless the scale and scope of the record are deemed to have the potential to affect the site:

2.7.1 Historical land uses / features

The Groundsure report lists 13No. past activities on site that have a potential contaminative land use. Many of the features appear to be associated with offsite activities. This may be a function of how the digitisation of their boundaries has been applied causing an overlap of the site boundary. These are grouped into the following:

- Cuttings –associated with the offsite railway line to the south.
- Unspecified works / old works / power station –associated with the offsite power station / electricity works to the west.
- Railway sidings – associated with the railway line to the south and the historical power station to the west.
- Unspecified ground workings – associated with a feature on the southeast boundary. This could be part of the railway cutting or the land raise area.

Offsite features within 100 m of site includes:

- Unspecified historical tanks 7-9 m to the southwest of the site.
- Power station / electricity works immediately to the west and southwest of the site.
- Electrical substations mapped within 46-51 m to the south and southwest of the site.
- Historical pumping station mapped 52 m to the northwest of the site.
- Historical ground workings 73 m to the south of the site.

⁴ https://www.gracesguide.co.uk/Earley_Power_Station

No historical petrol stations or garages were mapped within 100 m of the site.

2.7.2 Waste and landfill

There are no active or historical landfill records on site. There is one BGS recorded historical landfill mapped 327 m to the north of the site. There are nine EA recorded historical landfills mapped within 500 m of the site.

Two records are registered to the power station and are mapped 110 m to the northwest and 381 m to the north of the site and relates to the deposition of inert waste from 1945 to 1990.

Six records are registered to Thames Valley Park Ltd and are mapped 112 m to the west, and 270 m, 327 m, 397 m, and 468 m to the northwest. They are reported to be waste deposited under Special Environmental Permitting Regulations (Waste). The records are incomplete but appear to date between 1988 to 1989.

One record is registered to the Central Electricity Generating Board and is mapped 290 m to the north of the site and is dated December 1945.

The Environment Agency has been contacted with respect to information they may hold on record with respect to the offsite landfills. At the time of writing no response has been received.

We note that the closest landfills to the north appear to be partially raised out of the ground, relative to the surrounding area.

There is one waste exemption record for the site and categorised as a treating waste exemption involving crushing waste fluorescent tubes.

2.7.3 Current industrial land use

The Groundsure report does not identify any current or recent industrial use on site. The closest offsite features include: a gantry 20 m to the south of the site; an electricity substation located 43 m to the southwest of the site; a mast and a pylon mapped 81 m to the east of the site; an electricity distribution site located 85 m south of the site.

There are no current or recent petrol stations mapped within 100 m of the site.

2.7.4 License pollutant release (Part A(2)/B)

There are no licensed pollutant release records within 100 m of the site boundaries.

2.7.5 Licensed discharges to controlled waters

There is one revoked record for the discharge of treated or untreated effluent to controlled waters at 52 m to the southwest of the site. It was registered to Thames Valley Park in 1988 for surface water discharge to a nature reserve ditch.

2.7.6 Pollution incidents

There are no substantiated pollution incidents identified in the Groundsure report within 100 m of the site boundaries.

2.7.7 Natural ground subsidence

A moderate hazard potential is reported for shrink swell clays. This is mapped broadly across the eastern half of the site, although it extends along the southern boundary where the bedrock of the Lambeth Group Formation is mapped.

The hazard potential across the site from landslides is highlighted as very low to negligible. A low hazard potential is highlighted in an area 7 m to the north of the site.

The highest hazard potential for ground dissolution of soluble rocks on site is reported as high. This is mapped broadly following the boundary between the bedrock of the Lambeth Group Formation and the Chalk. This approximately spans from the southwest corner to the northeast corner of the site. Areas to the south of the high-risk area are highlighted as moderate to low risk.

The Groundsure report states that in high hazard rated areas numerous dissolution features may be present, the potential for difficult ground conditions should be investigated. The potential for localised subsidence is at a level where it should be considered.

2.7.8 Mining, ground workings and natural cavities

There are no BritPit (British Pits) records reported within 100 m of the site boundaries. The closest record is a gravel extraction pit located 164 m to the southwest of the site.

There are two non-coal mining entries for the site and relate to past or current underground mine workings within the chalk. The Groundsure report lists that the potential for difficult ground conditions should be considered.

The Groundsure report does not list other mine records on site.

2.7.9 Ground cavities and sinkholes

The Groundsure report does not list any records for natural or mining cavities, or information on recent or historical incident records on sinkholes on site or within 500 m of the site. It does caveat to say the absence of data does not mean a sinkhole has not occurred.

2.7.10 Radon risk

The highest radon risk onsite for properties having a radon level at or above the action level (200 Bq/m³) in Great Britain is between 1-3%. New build developments do not require protection measures at this level.

2.7.11 Railway infrastructure and projects

The Groundsure report lists one offsite underground line, namely the Elizabeth Line surface track mapped at 13 m south of the site boundary.

The Great Western Main Line is also reported to be located within 7 m of the southern boundary.

The Groundsure report lists 15No. railway sidings or railways present on site, as described above many of the features appear to be associated with offsite activities.

2.8 OTHER RELEVANT INFORMATION

2.8.1 Planning record review

An inspection of the available online planning record was carried out on 09/03/26.

(<https://planning.wokingham.gov.uk/FastWebPL/welcome.asp>)

No previous desk study, site investigation reports or environmental records for the site were available online to review. Records do however indicate that planning permission for a business

and country park was granted in 1988 and permission for the development of the current land use was granted in 1996.

2.8.2 Unexploded ordnance (UXO)

Based on the freely available Zetica risk mapping⁵ the site falls within an area of low risk of UXO.

A preliminary UXO risk assessment was undertaken by Brimstone Site Investigation Ltd. The risk assessment is included in Appendix E. It found no bombing incidents on site or within 500 m of the site boundaries and no evidence for significant allied or British military activity on site. A detailed risk assessment was not considered necessary. However, the risk could not be completely ruled out. It recommended that a UXO Safety Briefing is given to all staff undertaking the ground investigation.

⁵ <https://zeticauxo.com/guidance/risk-maps/>

3 PRELIMINARY GEO-ENVIRONMENTAL CONCEPTUAL SITE MODEL

LCRM outlines a risk-based approach to assess contaminated or potentially contaminated land. For a risk to exist a source of contamination, a potential receptor, and a pathway connecting the two must be present in order for that risk to be realised. The purpose of the preliminary conceptual site model (pCSM) is to identify and qualitatively assess all potential contaminant linkages using the information gained within section 2 of this report.

3.1.1 Identified contaminant sources

The following potential sources of onsite contamination have been identified by the desk study:

Onsite

- Potential for made ground to be present on site if land raising occurred during the construction of the current land use on site.
- Worked and made ground mapped in the far south and southeast of the site.
- Localised fuel or oil leaks in car parking areas.
- Potential for arable farm use (open fields) before the site was developed as offices.

Common potential contaminants of concern associated with made ground may include heavy metals, hydrocarbons (polycyclic aromatic hydrocarbons, petroleum hydrocarbons), and asbestos containing materials. The site has not been used for a heavy industry or an obvious historical contaminated land use. Contaminant concentrations if present on site are not anticipated to be at high concentrations above ambient levels.

There is the potential for residual herbicides and pesticides in onsite soils if arable farming occurred. However, these are not considered to pose a risk as their use (if any) was stopped at least 30 years ago when the current development was permitted.

Offsite

- Petroleum hydrocarbons from offsite oil storage tanks to the west of the site.
- Historical electrical works / power stations to the west of the site.
- Historical landfills to the north and northwest of the site.
- Active railway lines to the south of the site.
- Offsite historical pumping station.

Offsite potential contaminants of concern associated with power stations include: waste ashes e.g. pulverised fuel and furnace bottom ash (potentially deposited in the historical landfills or onsite); coal / coal yard; fuel (diesel or jet oil) and lubricating oils (historical tanks); asbestos; polychlorinated biphenyls in transformers and capacitors; and solvents. Heavy metals and acidic or alkaline soils may be associated with the waste ashes.

Some of the historical landfills are shown to have received inert wastes. Others are dated pre-1974 landfills, where records of materials deposited was less well managed.

The historical pumping station is not considered to be a significant source of ground contamination that would affect the site.

The railway line is not considered to pose a contaminated land risk to the site, as it is off site within a cutting.

3.1.2 Potential receptors

The following potential receptors of ground contamination were identified:

- Future end users of the site including commercial and maintenance workers
- Construction workers.
- Controlled waters: Secondary A and principal aquifers on site and the surface water pond, in land rivers and River Thames to the north of the site
- Construction material such as foundations and infrastructure including potable water pipes.
- Neighbouring properties.

Ecological receptors are not considered significant receptors in this CSM based on information contained in Chapter 2, above.

3.1.3 Potential contaminant linkages

A risk is only considered to be present where a plausible contaminant linkage between a source and receptor could be present. We understand that the proposed development will be a commercial land use, as a data centre with offices and associated infrastructure with areas of hard and soft landscaping.

Preliminary risk levels for each contaminant linkage are assessed considering the likelihood of exposure occurring and the severity of the impact that exposure could cause.

3.1.3.1 Human health

The CLEA model for a commercial land use considers the following exposure pathways:

- Direct soil and dust ingestion
- Indoor and outdoor dermal contact with soil and dust
- Indoor and outdoor dust inhalation
- Indoor and outdoor vapour inhalation

These pathways may be active if future land users are exposed to contaminated soils or the sources of contamination listed above.

3.1.3.2 Ground gas

Deep made ground with a high organic content if present onsite may be a source of ground gas that could pose a risk to onsite buildings. Gases could migrate through permeable geology or preferential pathways and accumulate beneath buildings. Depending on the organic matter content and/or the degradability of the material the gas migration may be from advective or diffusive flow.

The offsite historical landfills to the north may be a source of ground gas. However, between the closest landfills (110 m to the north) there is an inland river, a pond and a large area of open space. The mapped geology between the site and the landfill to the north is reported as Langley Silt Member, which comprise of silts and clays. The general topography of the site and the surrounding area is sloping downwards from the southeast to the northwest i.e. the landfills are

down slope of the site. These features may act to limit landfill gas migration (if they are still generating gas) onto the site.

3.1.3.3 Groundwater and surface waters

The secondary A and principal aquifers within the superficial and bedrock are at potential risk from contaminants on site via rainwater infiltration and vertical migration through permeable layers. Large areas of hardstanding will likely limit the likelihood of rainwater infiltration and contaminant migration. Where the groundwater is already contaminated this may migrate offsite and impact sensitive receptors such as offsite groundwater resources and surface water features.

Groundwater flow within the superficial aquifers is anticipated to flow in a north-westerly direction based on topography and potentially flown an easterly direction in the bedrock aquifers. This is based on historical information from the BGS, which can be confirmed with monitoring. The historical electricity works may pose an offsite historical contaminant source for the onsite bedrock aquifers. However, it is likely that some form of remedial works, would have occurred prior to the development of the adjacent office buildings.

3.1.3.4 Sensitive sites

None were identified onsite and off-site sensitive sites are considered too distant to be affected by the site.

3.1.4 Level of risk

A risk assessment table including risk levels for each individual pollutant linkage that will be present at the site once developed is included in Appendix F. To summarise the risk assessment identified very low to low risks for the majority of the pathways. This is because based on information contained above significant on-site contamination is not anticipated.

A moderate risk to future land users, construction and maintenance workers was identified, if asbestos is detected in on site soils. A low risk was identified to the site from the off-site landfills as the although the likelihood of exposure was considered unlikely, the severity of exposure was considered severe. A low risk was identified to onsite groundwater in the chalk aquifer from the historical electricity works to the west of the site. The potential for contaminant migration was considered to be low, due to the age at which the activity ceased and that the site was redeveloped, and the severity of the exposure was considered low due to the sensitivity of the groundwater resource (principal aquifer not in a SPZ).

4 PRELIMINARY GEOTECHNICAL CONCEPTUAL SITE MODEL

The following CSM is based on the information summarised above.

4.1.1 Anticipated ground model

Based on the preliminary assessment data, the ground conditions beneath the site are anticipated to comprise:

Table 2: Anticipated ground conditions from desk-based data review

Geological Strata		Notes
Made Ground		The site has been previously developed and as such made ground is likely to be present across the site. There are areas of worked and made ground shown on BGS mapping. Deeper made ground may be anticipated where historical ground workings or historical made ground is mapped.
Superficial Deposits	Langley Silt Formation	The superficial deposits are likely to comprise sandy gravels across the and silty clays, where mapped present in the north and west of the site.
	Kempton Park Gravel Member	
	Boyn Hill Gravel Member	
Bedrock Geology	Lambeth Group	A borehole 65m to the north of the site encountered stiff to firm silty CLAY and medium dense to dense SAND bands indicative of the Lambeth Group to 10.2 bgl.
	Seaford and Newhaven Chalk Formation (undifferentiated)	The offsite borehole 40 m to the northwest encountered structureless CHALK from 7.0 m bgl to the full depth of the borehole to 10 m bgl.

4.1.2 Anticipated hydrogeology

Shallow perched groundwater may be present within the made ground, as well as above any cohesive horizons within the superficial deposits. It is noted that historical trial pits dated 1984 did not report groundwater in the superficial deposits.

Groundwater was encountered in one borehole 40 m northwest of the site at 5.60 m within the chalk aquifer. Groundwater if present within the superficial deposits is anticipated to follow the sites topography and flow towards the northwest. Groundwater within the chalk aquifer is anticipated to flow in an easterly direction.

4.1.3 Below ground structures

Several service routes extend onto site, and the foundation depths of the existing building are not known. It is assumed that any below ground structures, foundations or infrastructure will be removed as part of the demolition or earthworks otherwise these may have an adverse effect on foundation design.

4.1.4 Geotechnical risk

A geotechnical risk register (GRR) is included in Appendix F of this document. The GRR shall be read in conjunction with the below. The geotechnical hazards considered to pose a risk to the proposed development, future site users, or construction operatives are summarised below.

It is likely that a layer of made ground is present across the site due to the historical land uses onsite and offsite. The depth is unknown at this stage. Made ground is highly variable and it generally unsuitable as a load bearing stratum. Furthermore, removal of existing foundations is likely to cause disturbance to the near surface soils. Care should be taken to ensure that shallow foundations are founded below this zone of disturbance on intact strata.

The shallow superficial deposits are likely to be granular in nature in parts of the northern and western areas of the site. Therefore, excavations such as foundation trenches and those for the lower ground floor of structures are likely to be unstable even in the short term particularly during the wetter winter months. Lateral support is likely to be required where entry into excavations is required.

Dependent on the depth of the Lambeth Group strata, and the presence of cohesive layers within the superficial deposits of the Langley Silt Member clay soils may be present at or just below foundation level. Given the presence of large trees on the southern, eastern and western boundaries and as part of managed landscaping within the site, the potential for these cohesive soils to exhibit volume change behaviour cannot be discounted. If such soils are encountered foundation design should accommodate the potential for shrink / swell behaviour.

The site is situated in an area of moderate to high risk from dissolution and this could pose a risk of ground subsidence and or onsite ground cavities / sinkholes.

There is limited information on the groundwater levels at the site. If there is a high groundwater this should be a consideration with respect to foundations and excavations.

Due to the proximity of the railway cutting assessment of slope instability hazards due to new loads as a result of developing the land close to the cutting should be considered. The site also slopes from ~52/50 m AOD in the southeast to ~39 m AOD in the northwest. There are existing retaining walls on site. Depending on the proposed design, earthworks and new retaining walls to accommodate the layout should be considered which may impact the cost of the development.

APPENDIX B – FIGURES AND DRAWINGS

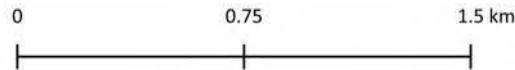


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- Notes:
1. Do not scale drawings
 2. All dimensions are in meters unless stated otherwise
 3. The drawing is the property of Onyx Geo Consulting Ltd and is not to be used or the drawing copied, communicated or disclosed in whole or in part, except in accordance with a contract, license or agreement in writing with Onyx Geo Consulting Ltd

Legend

 Site boundary



Sussex Innovation Centre, Science Park Square,
Brighton, BN1 9SB
e: info@onyxgeo.co.uk
w: www.onyxgeo.co.uk

Project name:
Thames Valley Data Centre

Client:
BCS Consulting Group Ltd

Drawing No:
ON261002-BR-XX-XX-DR-G-111-P01

Description:
Figure 1 Site location plan

Project no: ON261002	Rev: P01
Date: 15/03/2026	Scale: 1:25,000

Drawn MW	Checked SC	Approved SSC
-------------	---------------	-----------------

Notes:
1. Do not scale drawings
2. All dimensions are in meters unless stated otherwise
3. The drawing is the property of Onyx Geo Consulting Ltd and is not to be used or the drawing copied, communicated or disclosed in whole or in part, except in accordance with a contract, license or agreement in writing with Onyx Geo Consulting Ltd

Legend

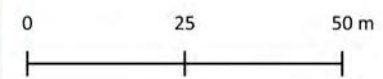
Site boundary

BGS Borehole records

Borehole records

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+

— Contour lines (m AOD)



Sussex Innovation Centre, Science Park Square,
Brighton, BN1 9SB
e: info@onyxgeo.co.uk
w: www.onyxgeo.co.uk

Project name:
Thames Valley Data Centre

Client:
BCS Consulting Group Ltd

Drawing No:
ON261002-BR-XX-XX-DR-G-112-P01

Description:
Figure 2 Site layout

Project no: ON261002	Rev: P01
-------------------------	-------------

Date: 15/03/2026	Scale: 1:1,200
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Drawn MW	Checked SC	Approved SSC
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APPENDIX C – PHOTOGRAPHS



Photo 1 – View along eastern boundary



Photo 2 – View west along front of buildings



Photo 3 – rear of building 3



Photo 4 – southern boundary view west



Photo 5 – view west



Photo 6 – embankment on southern boundary



Photo 9 – view north



Photo 10 – view along southern boundary



Photo 11 – view north



Photo 12 – skip on southern boundary



Photo 13 – view north of building 1 and 2



Photo 14 – terraces behind building 2



Photo 15 – view along west boundary of building 1



Photo 16 – View south of undercroft parking



Photo 17 – view north from building 2 undercroft car park



Photo 18 – gas pipeline on southern boundary

APPENDIX D - GROUNDSURE REPORT

Site details:474717,174104

Client ref:ON261002_P01

Report ref:GS-ZT9-W6T-MSJ-6BR

Grid ref:474714.53, 174105

Production date:6 March 2026

Map name:National Grid

Map date:2001

Scale:1:10,000

Printed at:1:10,000

Date: 2001

Date: 2001

Date: 2001

Date: 2001

Contact us with any questions at:
info@groundsure.com
01273 257 755





Contact us with any questions at:
info@groundsure.com
 01273 257 755

Site details:474717,174104

Client ref:ON261002_P01

Report ref:GS-ZT9-W6T-MSJ-6BR

Grid ref:474714.53, 174105

Production date:6 March 2026

Map name:National Grid

Map date:2015

Scale:1:10,000

Printed at:1:10,000

Date: 2015

Date: 2015

Date: 2015

Date: 2015

Contact us with any questions at:
info@groundsure.com
01273 257 755



Site details:474717,174104

Client ref:ON261002_P01

Report ref:GS-ZT9-W6T-MSJ-6BR

Grid ref:474714.53, 174105

Production date:6 March 2026

Map name:National Grid

Map date:2025

Scale:1:10,000

Printed at:1:10,000

Date: 2025

Date: 2025

Date: 2025

Date: 2025

N

W

E

S

Contact us with any questions at:
info@groundsure.com
01273 257 755



BUILDING 1, MICROSOFT LTD, THAMES VALLEY PARK DRIVE, EARLEY, WOKINGHAM, RG6 1WG

Order Details

Date: 25/08/2025
Your ref: BCS: Thames Valley Project
Our Ref: GS-S49-8F4-M1M-8O2

Site Details

Location: 474717 174104
Area: 5.52 ha
Authority: [Wokingham Borough Council](#) ↗



Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#)

[Insight User Guide](#) ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	13	3	20	42	-
18 >	1.2 >	Historical tanks >	0	4	12	9	-
20 >	1.3 >	Historical energy features >	0	4	2	10	-
21 >	1.4 >	Historical petrol stations >	0	0	5	1	-
21 >	1.5 >	Historical garages >	0	0	2	5	-
22	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
23 >	2.1 >	Historical industrial land uses >	22	4	29	53	-
27 >	2.2 >	Historical tanks >	0	4	16	21	-
29 >	2.3 >	Historical energy features >	0	5	4	23	-
31 >	2.4 >	Historical petrol stations >	0	0	8	1	-
31 >	2.5 >	Historical garages >	0	0	3	7	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
33	3.1	Active or recent landfill	0	0	0	0	-
33 >	3.2 >	Historical landfill (BGS records) >	0	0	0	1	-
34	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
34 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	2	7	-
36	3.5	Historical waste sites	0	0	0	0	-
36	3.6	Licensed waste sites	0	0	0	0	-
36 >	3.7 >	Waste exemptions >	1	0	0	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
37 >	4.1 >	Recent industrial land uses >	0	2	11	-	-
38	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
39 >	4.3 >	Current or recent petrol stations >	0	0	0	2	-
39	4.4	Electricity cables	0	0	0	0	-
39	4.5	Gas pipelines	0	0	0	0	-



39	4.6	Sites determined as Contaminated Land	0	0	0	0	-
39	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
40	4.8	Regulated explosive sites	0	0	0	0	-
40	4.9	Hazardous substance storage/usage	0	0	0	0	-
40	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
40	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
40 >	4.12 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	1	3	-
41	4.13	Radioactive Substance Authorisations	0	0	0	0	-
41 >	4.14 >	<u>Licensed Discharges to controlled waters ></u>	0	0	3	8	-
43	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
43	4.16	Pollutant release to public sewer	0	0	0	0	-
43	4.17	List 1 Dangerous Substances	0	0	0	0	-
44	4.18	List 2 Dangerous Substances	0	0	0	0	-
44 >	4.19 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	0	2	-
44	4.20	Pollution inventory substances	0	0	0	0	-
45	4.21	Pollution inventory waste transfers	0	0	0	0	-
45	4.22	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
46 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
48 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
50 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
52 >	5.4 >	<u>Groundwater vulnerability- soluble rock risk ></u>	Identified (within 0m)				
53	5.5	Groundwater vulnerability- local information	None (within 0m)				
54 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	23
60 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	11
63 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	3
64	5.9	Source Protection Zones	0	0	0	0	-
64	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m



65 >	6.1 >	Water Network (OS MasterMap) >	0	0	4	-	-
66 >	6.2 >	Surface water features >	0	1	3	-	-
66 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
67 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
67 >	6.5 >	WFD Groundwater bodies >	2	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
68	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
69 >	7.2 >	Historical Flood Events >	0	1	11	-	-
70	7.3	Flood Defences	0	0	0	-	-
70	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
70	7.5	Flood Storage Areas	0	0	0	-	-
71	7.6	Flood Zone 2	None (within 50m)				
71	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
72 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
74 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
75	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
76	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
76	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
76	10.4	Special Protection Areas (SPA)	0	0	0	0	0
76	10.5	National Nature Reserves (NNR)	0	0	0	0	0
77 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	2
77 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	10
78	10.8	Biosphere Reserves	0	0	0	0	0
78	10.9	Forest Parks	0	0	0	0	0
78	10.10	Marine Conservation Zones	0	0	0	0	0
78	10.11	Green Belt	0	0	0	0	0



78	10.12	Proposed Ramsar sites	0	0	0	0	0
79	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
79	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
79	10.15	Nitrate Sensitive Areas	0	0	0	0	0
79 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	1	5
81 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
82	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
83	11.1	World Heritage Sites	0	0	0	-	-
83	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
83	11.3	National Parks	0	0	0	-	-
83	11.4	Listed Buildings	0	0	0	-	-
84	11.5	Conservation Areas	0	0	0	-	-
84	11.6	Scheduled Ancient Monuments	0	0	0	-	-
84	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
85 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
86	12.2	Open Access Land	0	0	0	-	-
86	12.3	Tree Felling Licences	0	0	0	-	-
86	12.4	Environmental Stewardship Schemes	0	0	0	-	-
87	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
88 >	13.1 >	Priority Habitat Inventory >	1	2	9	-	-
89	13.2	Habitat Networks	0	0	0	-	-
89	13.3	Open Mosaic Habitat	0	0	0	-	-
89	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
91 >	14.1 >	10k Availability >	Identified (within 500m)				
92 >	14.2 >	Artificial and made ground (10k) >	2	1	3	5	-



94 >	14.3 >	Superficial geology (10k) >	3	0	4	3	-
95	14.4	Landslip (10k)	0	0	0	0	-
96 >	14.5 >	Bedrock geology (10k) >	2	0	3	0	-
97	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
98 >	15.1 >	50k Availability >	Identified (within 500m)				
99 >	15.2 >	Artificial and made ground (50k) >	0	1	1	4	-
100	15.3	Artificial ground permeability (50k)	0	0	-	-	-
101 >	15.4 >	Superficial geology (50k) >	3	0	2	3	-
102 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
102	15.6	Landslip (50k)	0	0	0	0	-
102	15.7	Landslip permeability (50k)	None (within 50m)				
103 >	15.8 >	Bedrock geology (50k) >	2	0	1	0	-
104 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
104	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
105 >	16.1 >	BGS Boreholes >	14	8	49	-	-
Page	Section	Natural ground subsidence >					
109 >	17.1 >	Shrink swell clays >	Moderate (within 50m)				
111 >	17.2 >	Running sands >	Very low (within 50m)				
113 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
114 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
115 >	17.5 >	Landslides >	Low (within 50m)				
117 >	17.6 >	Ground dissolution of soluble rocks >	High (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
119 >	18.1 >	BritPits >	0	0	1	2	-
120 >	18.2 >	Surface ground workings >	14	0	17	-	-
122	18.3	Underground workings	0	0	0	0	0
122	18.4	Underground mining extents	0	0	0	0	-

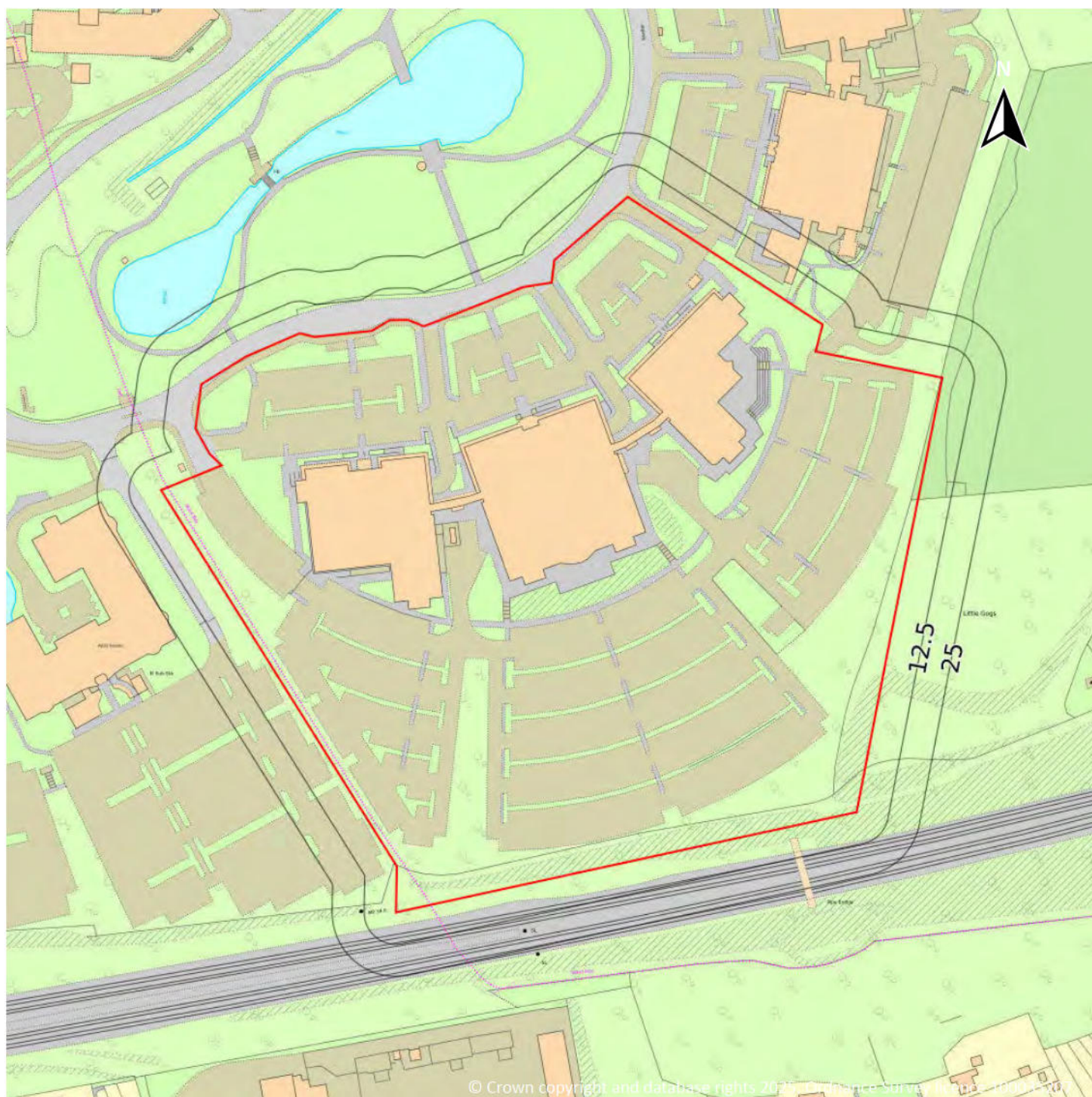


122	18.5	Historical Mineral Planning Areas	0	0	0	0	-
122 >	18.6 >	Non-coal mining >	2	0	1	1	4
124 >	18.7 >	JPB mining areas >	Identified (within 0m)				
124	18.8	The Coal Authority non-coal mining	0	0	0	0	-
124 >	18.9 >	Researched mining >	0	0	0	2	-
125	18.10	Mining record office plans	0	0	0	0	-
125	18.11	BGS mine plans	0	0	0	0	-
125	18.12	Coal mining	None (within 0m)				
125	18.13	Brine areas	None (within 0m)				
125	18.14	Gypsum areas	None (within 0m)				
126	18.15	Tin mining	None (within 0m)				
126	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
127	19.1	Natural cavities	0	0	0	0	-
127	19.2	Mining cavities	0	0	0	0	0
127	19.3	Reported recent incidents	0	0	0	0	-
127	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
129 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
131 >	21.1 >	BGS Estimated Background Soil Chemistry >	10	0	-	-	-
132	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
132	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
133 >	22.1 >	Underground railways (London) >	0	1	0	-	-
134	22.2	Underground railways (Non-London)	0	0	0	-	-
134	22.3	Railway tunnels	0	0	0	-	-
134 >	22.4 >	Historical railway and tunnel features >	15	11	17	-	-
136	22.5	Royal Mail tunnels	0	0	0	-	-



136	22.6	Historical railways	0	0	0	-	-
<u>136</u> >	<u>22.7</u> >	<u>Railways</u> >	0	9	0	-	-
137	22.8	Crossrail 2	0	0	0	0	-
137	22.9	HS2	0	0	0	0	-

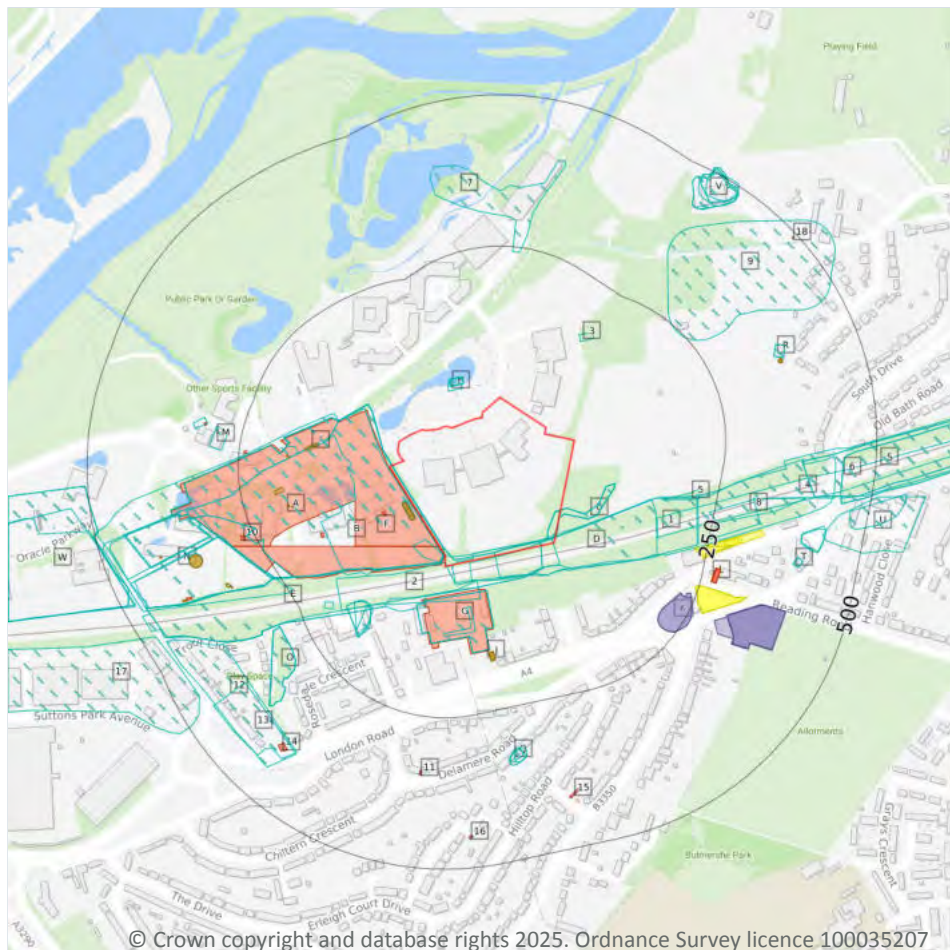
OS MasterMap site plan



Site Area: 5.52ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical petrol stations
- Historical garages

1.1 Historical industrial land uses

Records within 500m

78

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15](#) >

ID	Location	Land use	Dates present	Group ID
1	On site	Cuttings	1910 - 1994	1954649



ID	Location	Land use	Dates present	Group ID
2	On site	Railway Sidings	1933 - 1938	1992542
A	On site	Unspecified Old Works	1962	1881918
A	On site	Unspecified Works	1973	1965656
A	On site	Power Station	1979	1970418
B	On site	Railway Sidings	1962 - 1973	1917099
B	On site	Railway Sidings	1979	1934838
C	On site	Unspecified Ground Workings	1973	1920864
C	On site	Unspecified Ground Workings	1979	1978521
C	On site	Unspecified Ground Workings	1989 - 1994	1985705
D	On site	Cuttings	1962 - 1973	1926860
D	On site	Cuttings	1898	1958940
E	On site	Railway Sidings	1989	1986427
F	2m SW	Power Station	1989	1920733
F	7m SW	Unspecified Tanks	1979	1940447
F	7m SW	Unspecified Tanks	1973	1950319
G	51m S	Electric Substation	1989 - 1994	1927722
G	51m S	Electric Substation	1979	1999546
H	52m NW	Pumping Station	1900	1979455
H	56m NW	Pumping Station	1897	1937106
H	57m NW	Pumping Station	1910	1918036
H	57m NW	Pumping Station	1938	1973782
G	73m S	Unspecified Ground Workings	1933	1879755
E	139m SW	Unspecified Ground Workings	1938	1958129
E	140m SW	Old Gravel Pit	1898	1881965
E	142m SW	Unspecified Pit	1913	1970044
E	142m SW	Unspecified Pit	1938	1976857
3	150m NE	Pumping Station	1901	1910630
4	159m E	Railway Sidings	1960	1944219



ID	Location	Land use	Dates present	Group ID
5	162m E	Unspecified Ground Workings	1938	1879681
E	194m W	Railway Building	1962	1909723
6	218m E	Cuttings	1898 - 1900	1978243
7	241m N	Refuse Heap	1979	1888501
8	242m E	Railway Sidings	1932	1960979
N	243m SW	Disused Brick Works	1898	1883166
9	247m NE	Nursery	1910	1897691
N	260m SW	Unspecified Factory	1989	1984081
N	262m SW	Unspecified Factory	1979	1980265
M	272m W	Nursery	1994	1897727
O	287m SW	Unspecified Pit	1989 - 1994	1931897
O	287m SW	Unspecified Pit	1979	1932157
O	287m SW	Unspecified Pit	1962 - 1973	1950314
M	309m W	Pumping Station	1994	1910612
N	314m W	Unspecified Works	1973	1975301
Q	318m S	Unspecified Pit	1938	1942824
N	318m W	Unspecified Works	1979	1972971
Q	318m S	Unspecified Pit	1898	1917436
N	319m W	Unspecified Works	1989	1937709
Q	321m S	Unspecified Pit	1913	1923010
Q	321m S	Unspecified Pit	1938	1990614
N	345m SW	Unspecified Tank	1962	1892252
R	358m NE	Unspecified Heap	1986	1944968
R	358m NE	Unspecified Heap	1960 - 1977	1973661
12	375m SW	Nursery	1913	1925221
S	378m E	Cuttings	1910	1943357
S	378m E	Cuttings	1932	1987550
13	380m SW	Nursery	1898	1996197



ID	Location	Land use	Dates present	Group ID
T	394m E	Police Station	1977	1955026
T	394m E	Police Station	1986	1969415
T	399m E	Unspecified Pit	1932	1958023
T	400m E	Unspecified Pit	1938 - 1960	1931772
U	433m E	Gravel Pit	1910	1938215
V	433m NE	Unspecified Pit	1986	1932241
V	433m NE	Unspecified Pit	1977	1954482
V	434m NE	Unspecified Pit	1960	1996097
N	435m W	Wind Pump	1933	1883253
S	446m E	Cuttings	1986	1966416
S	446m E	Cuttings	1960 - 1977	1993540
V	451m NE	Unspecified Pit	1960	1939395
V	452m NE	Unspecified Pit	1932	1952701
V	452m NE	Gravel Pit	1910	1972596
17	459m SW	Unspecified Warehouses	1989 - 1994	1925298
V	461m NE	Gravel Pit	1900	1957813
U	469m E	Gravel Pit	1898	1964459
W	476m SW	Unspecified Factories	1979	1923880
W	476m SW	Unspecified Factories	1989	1951215
W	477m SW	Unspecified Factory	1973	1929299
W	480m SW	Unspecified Factory	1962 - 1973	1975496

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

25

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.



Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
F	8m SW	Tanks	1966	333283
F	8m SW	Tanks	1965	343354
F	9m SW	Tanks	1965	330995
F	9m SW	Tanks	1965	342603
I	123m W	Tanks	1965	329761
I	123m W	Tanks	1966	327709
I	130m W	Tanks	1965	327694
J	154m S	Unspecified Tank	1956	335275
J	154m S	Unspecified Tank	1964	342717
J	154m S	Unspecified Tank	1958 - 1960	334434
J	154m S	Unspecified Tank	1970	343240
I	167m W	Unspecified Tank	1965 - 1966	335615
A	172m W	Tanks	1966	340349
A	172m W	Tanks	1965	337718
A	178m W	Tanks	1965 - 1966	341549
A	179m W	Tanks	1965 - 1966	335268
N	325m SW	Tanks	1964 - 1970	341300
N	345m SW	Unspecified Tank	1956	337922
N	346m SW	Unspecified Tank	1958 - 1960	343402
R	362m E	Unspecified Tank	1972	330833
R	362m E	Unspecified Tank	1965	332886
R	362m E	Unspecified Tank	1966	333306
N	400m SW	Unspecified Tank	1973 - 1988	341640
N	405m W	Unspecified Tank	1956 - 1988	337576
18	491m NE	Unspecified Tank	1913 - 1932	340689

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

16

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
A	1m SW	Electricity Works	1965 - 1966	224376
B	1m SW	Power Station	1973	232383
F	46m SW	Electricity Substation	1999	208360
G	47m S	Electricity Substation	1973	208363
B	151m SW	Electricity Substation	1999	208359
M	237m W	Electricity Substation	1999	208357
10	265m SW	Electricity Substation	1999	208358
L	267m E	Electricity Substation	1993	224977
L	268m E	Electricity Substation	1989	219893
L	268m E	Electricity Substation	1976	219073
M	310m W	Electricity Substation	1991 - 1999	230782
11	340m S	Electricity Substation	1973 - 1997	217587
N	392m SW	Electricity Substation	1973 - 1988	227125
14	395m SW	Electricity Substation	1973 - 1996	224750
15	405m S	Electricity Substation	1973 - 1997	218755
16	446m S	Electricity Substation	1973 - 1997	226411

This data is sourced from Ordnance Survey / Groundsure.



1.4 Historical petrol stations

Records within 500m

6

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
L	230m E	Filling Station	1976 - 1989	3622
L	231m E	Filling Station	1993	3664
L	245m E	Filling Station	1989 - 1993	3645
L	245m E	Filling Station	1982	3693
L	245m E	Filling Station	1976	3586
L	275m E	Filling Station	1972	3749

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

7

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on [page 15 >](#)

ID	Location	Land use	Dates present	Group ID
K	209m SE	Garage	1989 - 1993	68087
K	210m SE	Garage	1976	70808
P	295m SE	Garage	1989 - 1993	68500
P	310m SE	Garage	1960 - 1966	69313
P	310m SE	Garage	1976	71668



ID	Location	Land use	Dates present	Group ID
P	310m SE	Garage	1960	69048
P	310m SE	Garage	1970	71038

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

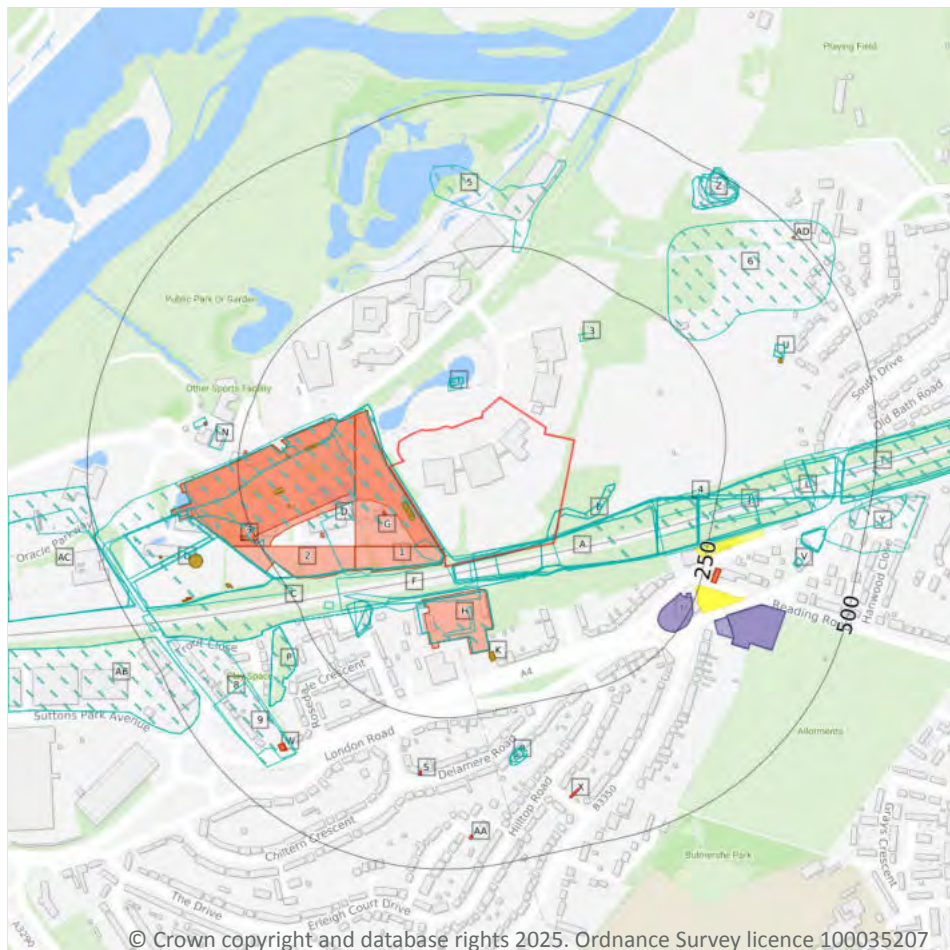
0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical petrol stations
- Historical garages

2.1 Historical industrial land uses

Records within 500m

108

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 23](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Cuttings	1994	1954649
A	On site	Cuttings	1933	1954649
A	On site	Cuttings	1989	1954649



ID	Location	Land Use	Date	Group ID
A	On site	Cuttings	1979	1954649
A	On site	Cuttings	1962	1926860
A	On site	Cuttings	1973	1926860
A	On site	Cuttings	1938	1954649
A	On site	Cuttings	1913	1954649
A	On site	Cuttings	1898	1958940
A	On site	Cuttings	1938	1954649
B	On site	Unspecified Ground Workings	1994	1985705
B	On site	Unspecified Ground Workings	1989	1985705
B	On site	Unspecified Ground Workings	1979	1978521
B	On site	Unspecified Ground Workings	1973	1920864
C	On site	Railway Sidings	1989	1986427
D	On site	Railway Sidings	1979	1934838
D	On site	Railway Sidings	1962	1917099
D	On site	Railway Sidings	1973	1917099
E	On site	Power Station	1979	1970418
E	On site	Unspecified Old Works	1962	1881918
E	On site	Unspecified Works	1973	1965656
F	On site	Railway Sidings	1938	1992542
G	2m SW	Power Station	1989	1920733
G	7m SW	Unspecified Tanks	1979	1940447
G	7m SW	Unspecified Tanks	1973	1950319
F	40m S	Railway Sidings	1933	1992542
H	51m S	Electric Substation	1994	1927722
H	51m S	Electric Substation	1989	1927722
H	51m S	Electric Substation	1979	1999546
I	52m NW	Pumping Station	1900	1979455
I	56m NW	Pumping Station	1897	1937106



ID	Location	Land Use	Date	Group ID
I	57m NW	Pumping Station	1938	1973782
I	57m NW	Pumping Station	1910	1918036
H	73m S	Unspecified Ground Workings	1933	1879755
C	139m SW	Unspecified Ground Workings	1938	1958129
C	139m SW	Unspecified Ground Workings	1938	1958129
C	140m SW	Old Gravel Pit	1898	1881965
C	142m SW	Unspecified Pit	1938	1976857
C	142m SW	Unspecified Pit	1913	1970044
3	150m NE	Pumping Station	1901	1910630
J	154m E	Cuttings	1960	1954649
J	154m E	Cuttings	1977	1954649
J	155m E	Cuttings	1986	1954649
L	159m E	Railway Sidings	1960	1944219
4	162m E	Unspecified Ground Workings	1938	1879681
C	194m W	Railway Building	1962	1909723
J	218m E	Cuttings	1932	1954649
J	218m E	Cuttings	1938	1954649
J	218m E	Cuttings	1910	1954649
J	218m E	Cuttings	1898	1978243
L	227m E	Cuttings	1900	1978243
5	241m N	Refuse Heap	1979	1888501
J	242m E	Railway Sidings	1932	1960979
O	243m SW	Disused Brick Works	1898	1883166
6	247m NE	Nursery	1910	1897691
O	260m SW	Unspecified Factory	1989	1984081
O	262m SW	Unspecified Factory	1979	1980265
N	272m W	Nursery	1994	1897727
P	287m SW	Unspecified Pit	1994	1931897



ID	Location	Land Use	Date	Group ID
P	287m SW	Unspecified Pit	1989	1931897
P	287m SW	Unspecified Pit	1979	1932157
P	287m SW	Unspecified Pit	1962	1950314
P	287m SW	Unspecified Pit	1973	1950314
N	309m W	Pumping Station	1994	1910612
O	314m W	Unspecified Works	1973	1975301
R	318m S	Unspecified Pit	1938	1942824
R	318m S	Unspecified Pit	1938	1942824
O	318m W	Unspecified Works	1979	1972971
R	318m S	Unspecified Pit	1898	1917436
O	319m W	Unspecified Works	1989	1937709
R	321m S	Unspecified Pit	1938	1990614
R	321m S	Unspecified Pit	1913	1923010
O	345m SW	Unspecified Tank	1962	1892252
T	348m E	Cuttings	1900	1978243
U	358m NE	Unspecified Heap	1960	1973661
U	358m NE	Unspecified Heap	1986	1944968
U	358m NE	Unspecified Heap	1977	1973661
8	375m SW	Nursery	1913	1925221
T	378m E	Cuttings	1932	1987550
T	378m E	Cuttings	1910	1943357
9	380m SW	Nursery	1898	1996197
V	394m E	Police Station	1986	1969415
V	394m E	Police Station	1977	1955026
V	399m E	Unspecified Pit	1932	1958023
V	399m E	Unspecified Pit	1932	1958023
V	400m E	Unspecified Pit	1960	1931772
V	400m E	Unspecified Pit	1938	1931772



ID	Location	Land Use	Date	Group ID
Y	433m E	Gravel Pit	1910	1938215
Z	433m NE	Unspecified Pit	1986	1932241
Z	433m NE	Unspecified Pit	1977	1954482
Z	434m NE	Unspecified Pit	1960	1996097
O	435m W	Wind Pump	1933	1883253
T	446m E	Cuttings	1960	1993540
T	446m E	Cuttings	1986	1966416
T	446m E	Cuttings	1977	1993540
T	448m E	Cuttings	1900	1978243
Z	451m NE	Unspecified Pit	1960	1939395
Z	452m NE	Unspecified Pit	1932	1952701
Z	452m NE	Gravel Pit	1910	1972596
AB	459m SW	Unspecified Warehouses	1994	1925298
AB	459m SW	Unspecified Warehouses	1989	1925298
Z	461m NE	Gravel Pit	1900	1957813
Z	463m NE	Gravel Pit	1900	1957813
Y	469m E	Gravel Pit	1898	1964459
AC	476m SW	Unspecified Factories	1989	1951215
AC	476m SW	Unspecified Factories	1979	1923880
AC	477m SW	Unspecified Factory	1973	1929299
AC	480m SW	Unspecified Factory	1962	1975496

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

41

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 23 >](#)



ID	Location	Land Use	Date	Group ID
G	8m SW	Tanks	1966	333283
G	8m SW	Tanks	1965	343354
G	9m SW	Tanks	1965	330995
G	9m SW	Tanks	1965	342603
E	123m W	Tanks	1965	329761
E	123m W	Tanks	1966	327709
E	130m W	Tanks	1965	327694
K	154m S	Unspecified Tank	1964	342717
K	154m S	Unspecified Tank	1956	335275
K	154m S	Unspecified Tank	1960	334434
K	154m S	Unspecified Tank	1958	334434
K	154m S	Unspecified Tank	1970	343240
E	167m W	Unspecified Tank	1965	335615
E	167m W	Unspecified Tank	1966	335615
E	172m W	Tanks	1966	340349
E	172m W	Tanks	1965	337718
E	178m W	Tanks	1966	341549
E	178m W	Tanks	1965	341549
E	179m W	Tanks	1965	335268
E	180m W	Tanks	1966	335268
O	325m SW	Tanks	1964	341300
O	327m SW	Tanks	1970	341300
O	345m SW	Unspecified Tank	1956	337922
O	346m SW	Unspecified Tank	1960	343402
O	346m SW	Unspecified Tank	1958	343402
U	362m E	Unspecified Tank	1965	332886
U	362m E	Unspecified Tank	1972	330833
U	362m E	Unspecified Tank	1966	333306



ID	Location	Land Use	Date	Group ID
O	400m SW	Unspecified Tank	1973	341640
O	401m SW	Unspecified Tank	1988	341640
O	401m SW	Unspecified Tank	1988	341640
O	405m W	Unspecified Tank	1960	337576
O	405m W	Unspecified Tank	1958	337576
O	405m W	Unspecified Tank	1970	337576
O	405m W	Unspecified Tank	1964	337576
O	405m W	Unspecified Tank	1973	337576
O	405m W	Unspecified Tank	1956	337576
O	406m W	Unspecified Tank	1988	337576
O	406m W	Unspecified Tank	1988	337576
AD	491m NE	Unspecified Tank	1932	340689
AD	491m NE	Unspecified Tank	1913	340689

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

32

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 23 >](#)

ID	Location	Land Use	Date	Group ID
E	1m SW	Electricity Works	1966	224376
1	1m SW	Power Station	1973	232383
G	1m SW	Electricity Works	1965	224376
G	46m SW	Electricity Substation	1999	208360
H	47m S	Electricity Substation	1973	208363
E	57m W	Electricity Works	1965	224376
2	118m SW	Power Station	1973	232383



ID	Location	Land Use	Date	Group ID
D	151m SW	Electricity Substation	1999	208359
N	237m W	Electricity Substation	1999	208357
7	265m SW	Electricity Substation	1999	208358
J	267m E	Electricity Substation	1993	224977
J	268m E	Electricity Substation	1989	219893
J	268m E	Electricity Substation	1976	219073
N	310m W	Electricity Substation	1997	230782
N	310m W	Electricity Substation	1995	230782
N	310m W	Electricity Substation	1996	230782
N	310m W	Electricity Substation	1999	230782
N	310m W	Electricity Substation	1991	230782
S	340m S	Electricity Substation	1997	217587
S	340m S	Electricity Substation	1973	217587
O	392m SW	Electricity Substation	1973	227125
O	393m SW	Electricity Substation	1988	227125
O	393m SW	Electricity Substation	1988	227125
W	395m SW	Electricity Substation	1996	224750
W	395m SW	Electricity Substation	1973	224750
W	396m SW	Electricity Substation	1988	224750
W	396m SW	Electricity Substation	1988	224750
W	396m SW	Electricity Substation	1991	224750
X	405m S	Electricity Substation	1973	218755
X	405m S	Electricity Substation	1997	218755
AA	446m S	Electricity Substation	1973	226411
AA	446m S	Electricity Substation	1997	226411

This data is sourced from Ordnance Survey / Groundsure.



2.4 Historical petrol stations

Records within 500m

9

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 23 >](#)

ID	Location	Land Use	Date	Group ID
J	230m E	Filling Station	1989	3622
J	231m E	Filling Station	1993	3664
J	231m E	Filling Station	1976	3622
J	244m E	Filling Station	1993	3664
J	245m E	Filling Station	1989	3645
J	245m E	Filling Station	1993	3645
J	245m E	Filling Station	1982	3693
J	245m E	Filling Station	1976	3586
J	275m E	Filling Station	1972	3749

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

10

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on [page 23 >](#)

ID	Location	Land Use	Date	Group ID
M	209m SE	Garage	1993	68087
M	210m SE	Garage	1989	68087
M	210m SE	Garage	1976	70808
Q	295m SE	Garage	1993	68500
Q	295m SE	Garage	1989	68500

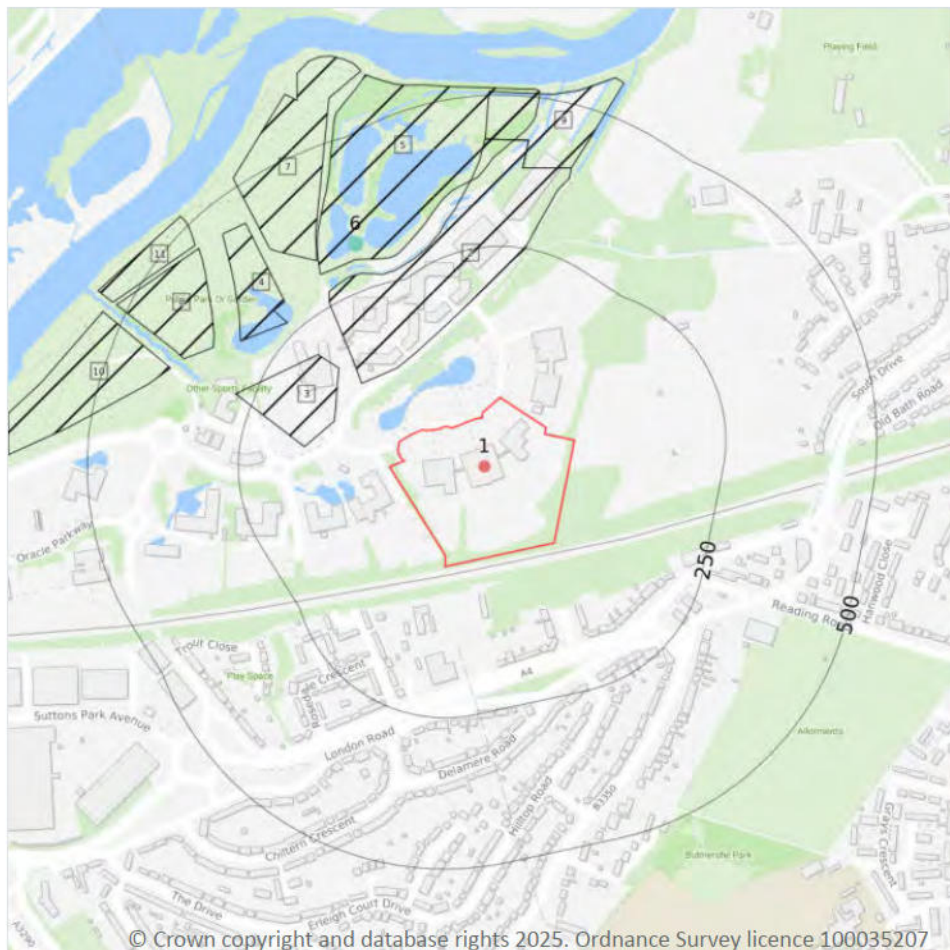


ID	Location	Land Use	Date	Group ID
Q	310m SE	Garage	1960	69313
Q	310m SE	Garage	1976	71668
Q	310m SE	Garage	1966	69313
Q	310m SE	Garage	1960	69048
Q	310m SE	Garage	1970	71038

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (EA/NRW)
- Historical landfill (BGS)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

1

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

Features are displayed on the Waste and landfill map on [page 33](#) >

ID	Location	Address	BGS Number	Risk	Waste Type
6	327m N	CEGB Earley Power Stn, Reading, Berks	1276	Risk to major aquifer	N/A

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0
----------------------------	----------

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m	9
----------------------------	----------

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on [page 33 >](#)

ID	Location	Details		
2	110m NW	Site Address: Power Station, Earley, Buckinghamshire Licence Holder Address: -	Waste Licence: - Site Reference: 54/12/4/18, TP0487, WOK5 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded 31/12/1945 Last Recorded: 31/12/1990
3	112m W	Site Address: Thames Valley Park, Reading, Berkshire Licence Holder Address: -	Waste Licence: - Site Reference: TP0543, WOK3, 54/12/4/231 Waste Type: Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: Thames Valley Park Limited First Recorded - Last Recorded: 30/06/1989



ID	Location	Details		
4	270m NW	Site Address: Thames Valley Park, Reading, Berkshire Licence Holder Address: -	Waste Licence: - Site Reference: 54/12/4/231, TP0544, WOK3 Waste Type: Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: Thames Valley Park Limited First Recorded - Last Recorded: 30/06/1989
5	290m N	Site Address: Central Electricity Generating Board, Reading, Berkshire Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: Central Electricity Generating Board Licence Holder: - First Recorded 31/12/1945 Last Recorded: -
7	327m NW	Site Address: Thames Valley Park, Reading, Berkshire Licence Holder Address: -	Waste Licence: Yes Site Reference: 54/12/4/231, TP0542, WOK3, WOK32 Waste Type: Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 31/03/1988 Licence Surrender: -	Operator: - Licence Holder: Thames Valley Park Limited First Recorded 31/03/1988 Last Recorded: 30/06/1989
8	344m NW	Site Address: Thames Valley Park, Reading, Berkshire Licence Holder Address: -	Waste Licence: Yes Site Reference: 54/12/4/231, WOK39, TP0541, WOK3 Waste Type: Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 31/03/1988 Licence Surrender: -	Operator: - Licence Holder: Thames Valley Park Limited First Recorded - Last Recorded: 30/06/1989
9	381m N	Site Address: Power Station, Earley, Buckinghamshire Licence Holder Address: -	Waste Licence: - Site Reference: 54/12/4/18, TP0487, WOK5, WOK56 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded 31/12/1945 Last Recorded: 31/12/1990
10	397m W	Site Address: Thames Valley Park, Reading, Berkshire Licence Holder Address: -	Waste Licence: - Site Reference: WOK3, 54/12/4/231, TP0545 Waste Type: Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: Thames Valley Park Limited First Recorded - Last Recorded: 30/06/1989



ID	Location	Details		
11	468m NW	Site Address: Thames Valley Park, Reading, Berkshire Licence Holder Address: -	Waste Licence: Yes Site Reference: TP0546, WOK3, 54/12/4/231, WOK30 Waste Type: Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 31/03/1988 Licence Surrender: -	Operator: - Licence Holder: Thames Valley Park Limited First Recorded - Last Recorded: 30/06/1989

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	0
----------------------------	----------

Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	0
----------------------------	----------

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	1
----------------------------	----------

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

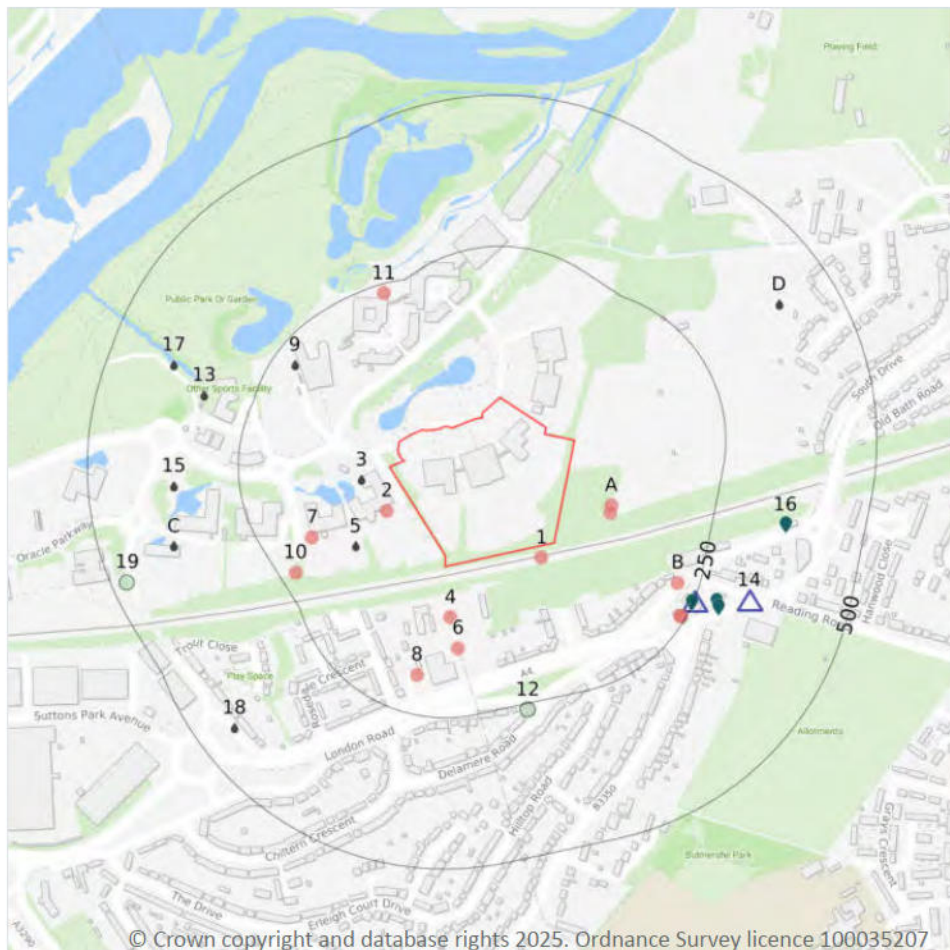
Features are displayed on the Waste and landfill map on [page 33 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
1	On site	Microsoft Campus Thames Valley Park Reading Berkshire Rg6 1wg	EPR/UF0831W Y/A001	Treating waste exemption	Both agricultural and non-agricultural waste	Crushing waste fluorescent tubes

This data is sourced from the Environment Agency and Natural Resources Wales.



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

13

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 37](#) >

ID	Location	Company	Address	Activity	Category
1	20m S	Gantry	Berkshire, RG6	Travelling Cranes and Gantries	Industrial Features
2	43m SW	Electricity Sub Station	Berkshire, RG6	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
A	81m E	Mast (Telecommu nication)	Berkshire, RG6	Telecommunications Features	Infrastructure and Facilities
A	81m E	Pylon	Berkshire, RG6	Electrical Features	Infrastructure and Facilities
4	85m S	Electricity Distribution Site	Berkshire, RG6	Electrical Features	Infrastructure and Facilities
6	136m S	Pylon	Berkshire, RG6	Electrical Features	Infrastructure and Facilities
7	170m SW	Electricity Sub Station	Berkshire, RG6	Electrical Features	Infrastructure and Facilities
8	185m S	Electricity Sub Station	Berkshire, RG6	Electrical Features	Infrastructure and Facilities
B	215m E	Electricity Sub Station	Berkshire, RG6	Electrical Features	Infrastructure and Facilities
10	225m SW	Electricity Sub Station	Berkshire, RG6	Electrical Features	Infrastructure and Facilities
11	234m N	Thames Valley Business Park	Berkshire, RG6	Business Parks and Industrial Estates	Industrial Features
B	241m SE	B P Car Wash	Sonning Cutting Filling Station 709, London Road, Woodley, Berkshire, RG6 1BG	Vehicle Cleaning Services	Personal, Consumer and Other Services
B	241m SE	BP Service Station	Sonning Cutting Filling Station 709, London Road, Woodley, Berkshire, RG6 1BG	Petrol and Fuel Stations	Road and Rail

This data is sourced from Ordnance Survey.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m

0

Current or recent tanks identified from the Ordnance Survey NGD.

This data is sourced from Ordnance Survey.



4.3 Current or recent petrol stations

Records within 500m

2

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 37 >](#)

ID	Location	Company	Address	LPG	Status
B	251m SE	BP	709, London Road, Shepherds Hill, Woodley, Reading, Wokingham, RG6 1BG	No	Open
14	336m E	BP	705, London Road, Woodley, Reading, Wokingham, RG6 1BG	Not Applicable	Obsolete

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m

0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m

0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.



This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m

0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m

0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m

0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed industrial activities (Part A(1))

Records within 500m

0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.12 Licensed pollutant release (Part A(2)/B)

Records within 500m

4

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on [page 37](#) >



ID	Location	Address	Details	
B	248m SE	BP Sonning Cutting Connect, 709 London Road, Woodley, Reading, RG6 1BG	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
B	284m E	BP Shepherds Hill Serv Stn, 705 London Rd, RG40 1RD	Process: Petrol Vapour Recovery Process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
B	291m E	Lex Reading, London Rd, RG6 1BJ	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
16	369m E	Johnson Cleaners UK Ltd, Unit 3, Shepherds Hill, Reading, Berkshire, RG6 1BB	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.13 Radioactive Substance Authorisations

Records within 500m	0
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Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Licensed Discharges to controlled waters

Records within 500m	11
----------------------------	-----------

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on [page 37](#) >

ID	Location	Address	Details	
3	52m SW	THAMES VALLEY PARK, READING, BERKSH, THAMES VALLEY PARK, READING, BER, KSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.2663 Permit Version: 1 Receiving Water: NATURE RESERVE DITCH	Status: REVOKED - UNSPECIFIED Issue date: 29/07/1988 Effective Date: 29/07/1988 Revocation Date: 09/08/1989



ID	Location	Address	Details	
5	118m SW	EARLEY POWER STATION, SHEPHERDS HOU, EARLEY POWER STATION, SHEPHERDS, HOUSE LANE, EARLEY, READING, BER, KS	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTCU.0856 Permit Version: 1 Receiving Water: GRAVEL AND CLAY STRATA	Status: REVOKED - UNSPECIFIED Issue date: 07/03/1979 Effective Date: 07/03/1979 Revocation Date: 20/12/1996
9	214m NW	THAMES VALLEY PARK, READING, BERKSH, THAMES VALLEY PARK, READING, BER, KSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CNTW.0181 Permit Version: 1 Receiving Water: NATURE RESERVE DITCH	Status: REVOKED - UNSPECIFIED Issue date: 01/12/1989 Effective Date: 01/12/1989 Revocation Date: 04/10/1995
13	329m W	THAMES VALLEY PARK, READING, BERKSH, THAMES VALLEY PARK, READING, BER, KSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.2662 Permit Version: 1 Receiving Water: EARLEY POWERSTATION CHANNEL	Status: REVOKED - UNSPECIFIED Issue date: 29/07/1988 Effective Date: 29/07/1988 Revocation Date: 09/08/1989
15	358m W	FACTORY PREMISES, SHEPHERDS HOUSE L, FACTORY PREMISES, SHEPHERDS HOUS, E LANE, EARLEY, READING, BERKS	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: CTCP.0596 Permit Version: 1 Receiving Water: EARLEY DITCH	Status: REVOKED - UNSPECIFIED Issue date: 13/12/1967 Effective Date: 13/12/1967 Revocation Date: 05/11/1980
C	380m W	Kiln Farm, Kiln Farm	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1251 Permit Version: 1 Receiving Water: RIVER THAMES	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
C	380m W	Kiln Farm, Kiln Farm	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1251 Permit Version: 2 Receiving Water: River Thames	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 13/10/2015
17	394m W	THAMES VALLEY PARK, READING, BERKSH, THAMES VALLEY PARK, READING, BER, KSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CNTW.0182 Permit Version: 1 Receiving Water: UN-NAMED TRIB OF RIVER THAMES	Status: REVOKED - UNSPECIFIED Issue date: 01/12/1989 Effective Date: 01/12/1989 Revocation Date: 04/10/1995



ID	Location	Address	Details	
D	405m NE	Holme Park, Holme Park	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1175 Permit Version: 1 Receiving Water: RIVER THAMES	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
D	405m NE	Holme Park, Holme Park	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1175 Permit Version: 2 Receiving Water: River Thames	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 19/08/2014
18	439m SW	FACTORY PREMISES, SHEPHERDS HOUSE L, FACTORY PREMISES, SHEPHERDS HOUS, E LANE, EARLEY, READING, BERKS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTR.0485 Permit Version: 1 Receiving Water: TRIB OF THAMES	Status: REVOKED - UNSPECIFIED Issue date: 10/10/1961 Effective Date: 10/10/1961 Revocation Date: 08/06/1988

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to surface waters (Red List)

Records within 500m	0
----------------------------	----------

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 Pollutant release to public sewer

Records within 500m	0
----------------------------	----------

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 1 Dangerous Substances

Records within 500m	0
----------------------------	----------

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.



4.18 List 2 Dangerous Substances

Records within 500m

0

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution Incidents (EA/NRW)

Records within 500m

2

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on [page 37 >](#)

ID	Location	Details	
12	260m S	Incident Date: 25/01/2002 Incident Identification: 60581 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
19	474m SW	Incident Date: 11/03/2003 Incident Identification: 142288 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.20 Pollution inventory substances

Records within 500m

0

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.22 Pollution inventory radioactive waste

Records within 500m

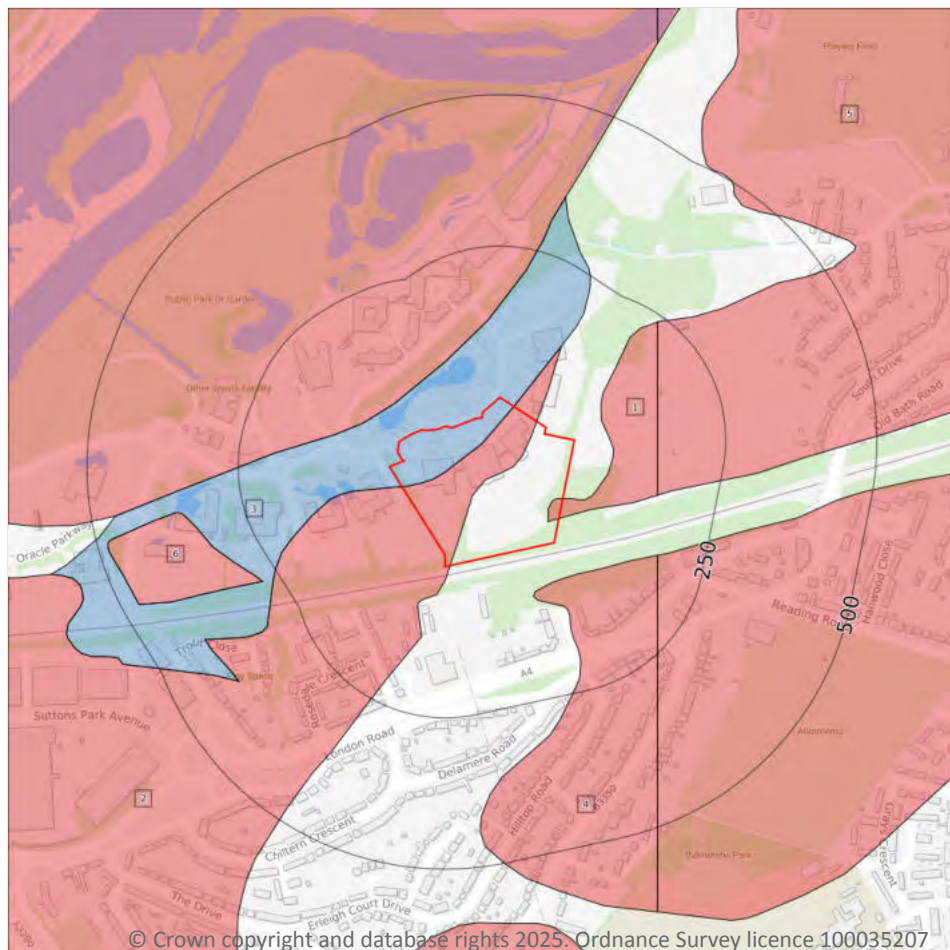
0

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.



5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

6

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 46 >](#)

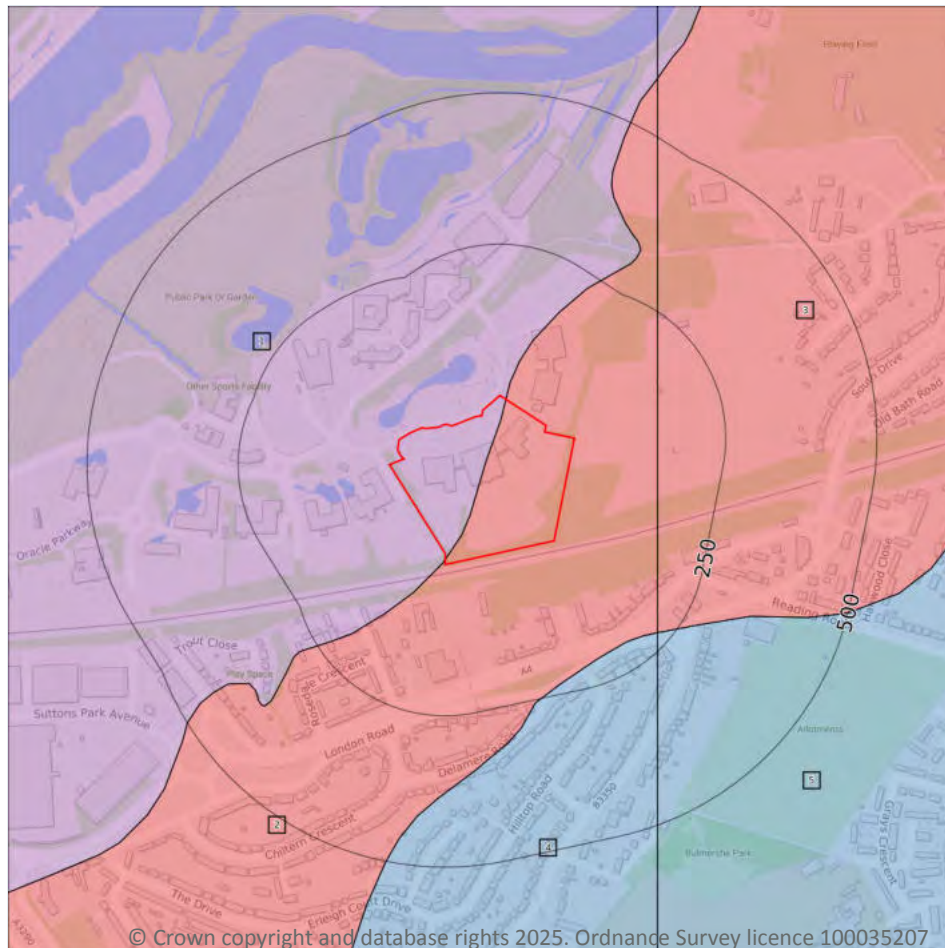
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	On site	Secondary A	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 are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
4	61m S	Secondary A	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 are generally aquifers formerly classified as minor aquifers
5	138m E	Secondary A	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 are generally aquifers formerly classified as minor aquifers
6	279m SW	Secondary A	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 are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

5

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 48](#) >

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	On site	Secondary A	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 are generally aquifers formerly classified as minor aquifers

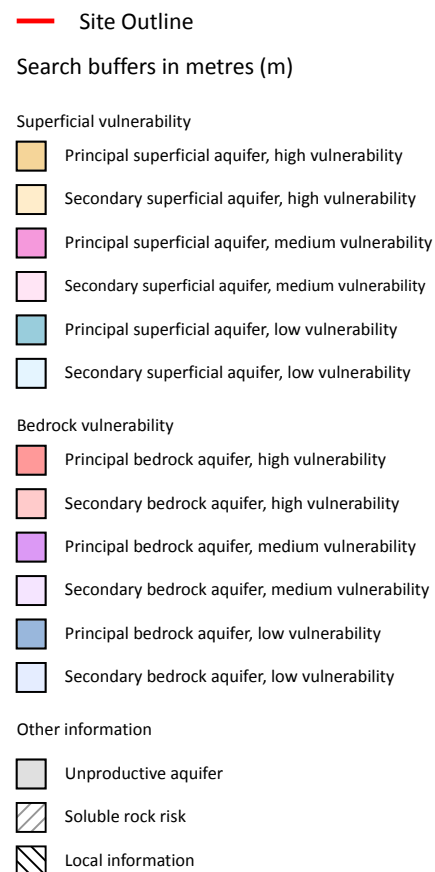
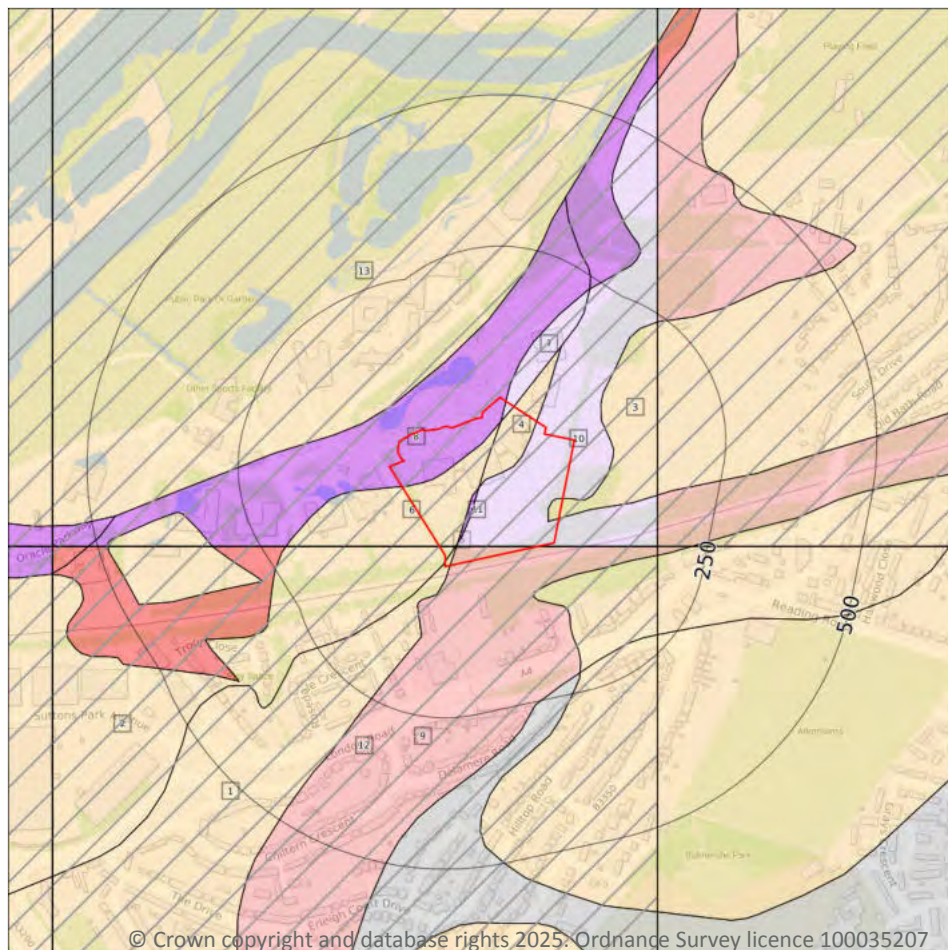


ID	Location	Designation	Description
3	138m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	205m SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
5	229m SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

11

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on [page 50](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
4	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
5	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
6	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Principal Flow mechanism: Well connected fractures



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
7	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Unproductive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: Unproductive Aquifer type: Unproductive Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
8	On site	Summary Classification: Principal bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Unproductive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: Unproductive Aquifer type: Unproductive Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Principal Flow mechanism: Well connected fractures
9	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
10	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
11	On site	Summary Classification: Principal bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Medium Aquifer type: Principal Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site

2

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.



ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
12	Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.	0.0%
13	Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.	3.0%

This data is sourced from the British Geological Survey and the Environment Agency.

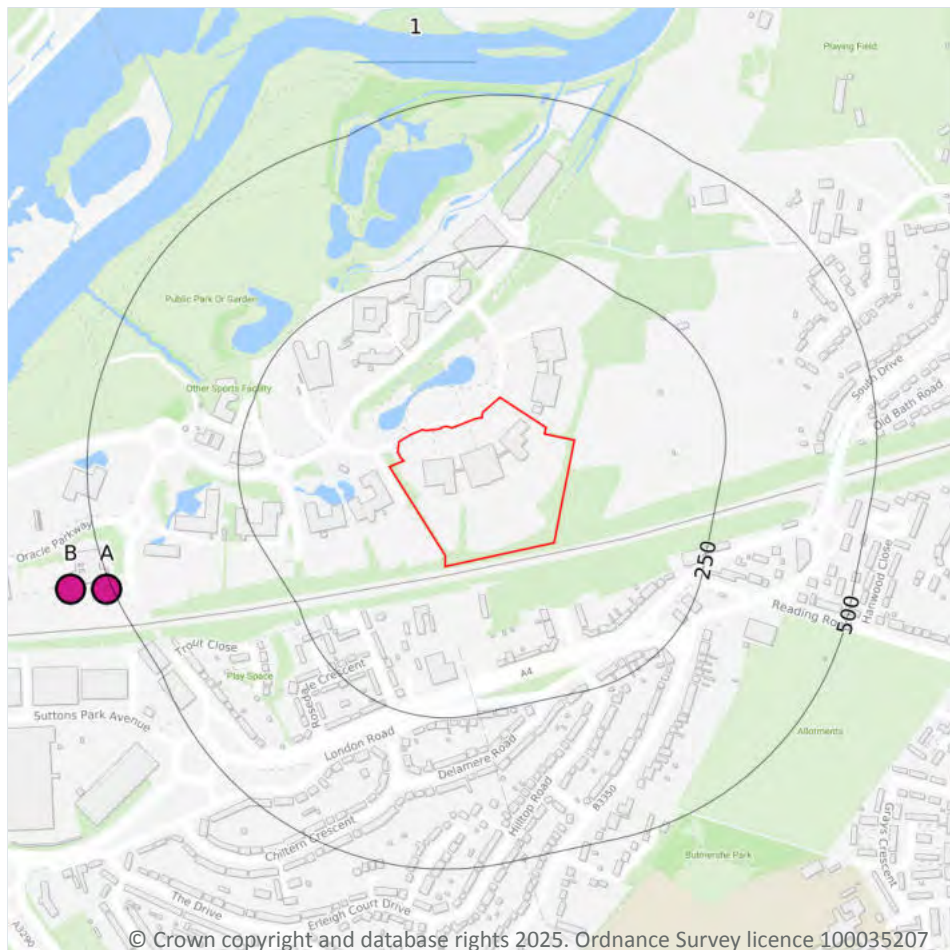
5.5 Groundwater vulnerability- local information

Records on site	0
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This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

23

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 54](#) >



ID	Location	Details	
A	509m SW	Status: Historical Licence No: 28/39/23/0175 Details: Make-Up Or Top Up Water Direct Source: THAMES GROUNDWATER Point: THAMES VALLEY PARK, READING, - BOREHOLE 'B' Data Type: Point Name: THAMES VALLEY PARK MANCO LTD Easting: 474090 Northing: 173930	Annual Volume (m ³): 50750 Max Daily Volume (m ³): 750 Original Application No: - Original Start Date: 06/04/1995 Expiry Date: 30/09/2010 Issue No: 101 Version Start Date: 01/10/1999 Version End Date: -
A	509m SW	Status: Historical Licence No: 28/39/23/0175 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: THAMES VALLEY PARK, READING, - BOREHOLE 'B' Data Type: Point Name: THAMES VALLEY PARK MANCO LTD Easting: 474090 Northing: 173930	Annual Volume (m ³): 50750 Max Daily Volume (m ³): 750 Original Application No: - Original Start Date: 06/04/1995 Expiry Date: 30/09/2010 Issue No: 101 Version Start Date: 01/10/1999 Version End Date: -
B	564m W	Status: Historical Licence No: 28/39/23/0175 Details: Make-Up Or Top Up Water Direct Source: THAMES GROUNDWATER Point: THAMES VALLEY PARK, READING - BOREHOLE 'A' Data Type: Point Name: THAMES VALLEY PARK MANCO LTD Easting: 474030 Northing: 173930	Annual Volume (m ³): 50750 Max Daily Volume (m ³): 750 Original Application No: - Original Start Date: 06/04/1995 Expiry Date: 30/09/2010 Issue No: 101 Version Start Date: 01/10/1999 Version End Date: -
B	564m W	Status: Historical Licence No: 28/39/23/0175 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: THAMES VALLEY PARK, READING - BOREHOLE 'A' Data Type: Point Name: THAMES VALLEY PARK MANCO LTD Easting: 474030 Northing: 173930	Annual Volume (m ³): 50750 Max Daily Volume (m ³): 750 Original Application No: - Original Start Date: 06/04/1995 Expiry Date: 30/09/2010 Issue No: 101 Version Start Date: 01/10/1999 Version End Date: -

ID	Location	Details	
-	1015m W	Status: Historical Licence No: 28/39/23/0191 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT WATERSIDE CENTRE, THAMES VALLEY PARK ROAD Data Type: Point Name: WOKINGHAM WATERSIDE CENTRE LTD Easting: 473560 Northing: 173940	Annual Volume (m ³): 2600 Max Daily Volume (m ³): 25 Original Application No: - Original Start Date: 21/12/2000 Expiry Date: - Issue No: 3 Version Start Date: 01/04/2008 Version End Date: -
-	1082m W	Status: Historical Licence No: 28/39/23/0016 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: READING UNIVERSITY RESEARCH SITE, READING, - WELL 'A' Data Type: Point Name: UNIVERSITY OF READING Easting: 473500 Northing: 173900	Annual Volume (m ³): 1136 Max Daily Volume (m ³): 22.73 Original Application No: - Original Start Date: 14/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1090m NW	Status: Active Licence No: 28/39/23/0011 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: DEANS FARM, CAVERSHAM, - GRAVEL WET PIT, POINT 'B' Data Type: Point Name: Tarmac Aggregates Limited Easting: 473830 Northing: 174970	Annual Volume (m ³): 210860 Max Daily Volume (m ³): 1223 Original Application No: NPS/WR/038724 Original Start Date: 14/02/1966 Expiry Date: - Issue No: 107 Version Start Date: 26/08/2022 Version End Date: -
-	1090m NW	Status: Active Licence No: 28/39/23/0011 Details: Mineral Washing Direct Source: THAMES GROUNDWATER Point: DEANS FARM, CAVERSHAM, - GRAVEL WET PIT, POINT 'B' Data Type: Point Name: Tarmac Aggregates Limited Easting: 473830 Northing: 174970	Annual Volume (m ³): 210860 Max Daily Volume (m ³): 1223 Original Application No: NPS/WR/038724 Original Start Date: 14/02/1966 Expiry Date: - Issue No: 107 Version Start Date: 26/08/2022 Version End Date: -



ID	Location	Details	
-	1097m NW	Status: Active Licence No: 28/39/23/0011 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: DEANS FARM, CAVERSHAM, GRAVEL WET PIT, POINT 'A' Data Type: Point Name: Tarmac Aggregates Limited Easting: 473830 Northing: 174980	Annual Volume (m ³): 210860 Max Daily Volume (m ³): 1223 Original Application No: NPS/WR/038724 Original Start Date: 14/02/1966 Expiry Date: - Issue No: 107 Version Start Date: 26/08/2022 Version End Date: -
-	1097m NW	Status: Active Licence No: 28/39/23/0011 Details: Mineral Washing Direct Source: THAMES GROUNDWATER Point: DEANS FARM, CAVERSHAM, GRAVEL WET PIT, POINT 'A' Data Type: Point Name: Tarmac Aggregates Limited Easting: 473830 Northing: 174980	Annual Volume (m ³): 210860 Max Daily Volume (m ³): 1223 Original Application No: NPS/WR/038724 Original Start Date: 14/02/1966 Expiry Date: - Issue No: 107 Version Start Date: 26/08/2022 Version End Date: -
-	1281m N	Status: Historical Licence No: 28/39/23/0172 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: FOLLEY GRAVEL PIT, SONNING EYE Data Type: Point Name: READING SAILING CLUB Easting: 475000 Northing: 175500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2004 Version End Date: -
-	1597m NE	Status: Historical Licence No: 28/39/23/0148 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: THE MILL, SONNING EYE, OXON Data Type: Point Name: R D RICHARDS & CO (MAIDENHEAD) LTD Easting: 475400 Northing: 175700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/10/1979 Expiry Date: - Issue No: 100 Version Start Date: 07/09/1993 Version End Date: -



ID	Location	Details	
-	1674m N	Status: Historical Licence No: 28/39/23/0036 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING EYE, DUNSDEN (B) Data Type: Point Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475000 Northing: 175900	Annual Volume (m ³): 5591 Max Daily Volume (m ³): 22.73 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1680m NE	Status: Active Licence No: TH/039/0023/020 Details: Heat Pump Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT THE MILL AT SONNING THEATRE Data Type: Point Name: Mill at Sonning (Theatre) Limited (The) Easting: 475435 Northing: 175775	Annual Volume (m ³): 102930 Max Daily Volume (m ³): 282 Original Application No: NPS/WR/018591 Original Start Date: 15/01/2016 Expiry Date: 31/03/2028 Issue No: 1 Version Start Date: 15/01/2016 Version End Date: -
-	1717m N	Status: Historical Licence No: 28/39/23/0036 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING EYE, DUNSDEN (C) Data Type: Point Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475200 Northing: 175900	Annual Volume (m ³): 5591 Max Daily Volume (m ³): 22.73 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1786m N	Status: Active Licence No: 28/39/23/0018 Details: Mineral Washing Direct Source: THAMES GROUNDWATER Point: POINT 'A' - WET PIT AT SONNING EYE Data Type: Point Name: Tarmac Aggregates Limited Easting: 474650 Northing: 176030	Annual Volume (m ³): 569000 Max Daily Volume (m ³): 2450 Original Application No: NPS/WR/038724 Original Start Date: 04/04/1966 Expiry Date: - Issue No: 107 Version Start Date: 26/08/2022 Version End Date: -
-	1786m N	Status: Active Licence No: 28/39/23/0018 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: POINT 'A' - WET PIT AT SONNING EYE Data Type: Point Name: Tarmac Aggregates Limited Easting: 474650 Northing: 176030	Annual Volume (m ³): 569000 Max Daily Volume (m ³): 2450 Original Application No: NPS/WR/038724 Original Start Date: 04/04/1966 Expiry Date: - Issue No: 107 Version Start Date: 26/08/2022 Version End Date: -



ID	Location	Details	
-	1814m NE	Status: Active Licence No: 28/39/23/0154 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: SONNING FARM, SONNING (A) Data Type: Point Name: UNIVERSITY OF READING Easting: 476200 Northing: 175400	Annual Volume (m ³): 43188 Max Daily Volume (m ³): 727.46 Original Application No: WR.A/348/12 Original Start Date: 25/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 25/09/1980 Version End Date: -
-	1814m NE	Status: Active Licence No: 28/39/23/0154 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING FARM, SONNING (A) Data Type: Point Name: UNIVERSITY OF READING Easting: 476200 Northing: 175400	Annual Volume (m ³): 43188 Max Daily Volume (m ³): 727.46 Original Application No: WR.A/348/12 Original Start Date: 25/09/1980 Expiry Date: - Issue No: 100 Version Start Date: 25/09/1980 Version End Date: -
-	1814m NE	Status: Historical Licence No: 28/39/23/0072 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: SONNING FARM, SONNING (A) Data Type: Point Name: UNIVERSITY OF READING Easting: 476200 Northing: 175400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -
-	1844m N	Status: Historical Licence No: 28/39/23/0018 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: SONNING EYE - WELL Data Type: Point Name: LAFARGE AGGREGATES LIMITED Easting: 474550 Northing: 176080	Annual Volume (m ³): 354596 Max Daily Volume (m ³): 2454.84 Original Application No: - Original Start Date: 04/04/1966 Expiry Date: - Issue No: 103 Version Start Date: 30/11/2006 Version End Date: -
-	1844m N	Status: Historical Licence No: 28/39/23/0018 Details: Mineral Washing Direct Source: THAMES GROUNDWATER Point: SONNING EYE - WELL Data Type: Point Name: LAFARGE AGGREGATES LIMITED Easting: 474550 Northing: 176080	Annual Volume (m ³): 354596 Max Daily Volume (m ³): 2454.84 Original Application No: - Original Start Date: 04/04/1966 Expiry Date: - Issue No: 103 Version Start Date: 30/11/2006 Version End Date: -



ID	Location	Details	
-	1932m W	Status: Historical Licence No: 28/39/22/0600 Details: Pollution Remediation Direct Source: THAMES GROUNDWATER Point: FORMER GASWORKS, KENAVON DRIVE, READING (5 BOREHOLES) Data Type: Point Name: M J GLEESON GROUP PLC Easting: 472700 Northing: 173600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/07/2000 Expiry Date: 31/08/2001 Issue No: 1 Version Start Date: 31/07/2000 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	11
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Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 54 >](#)

ID	Location	Details	
1	555m N	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE - RIVER THAMES, POINTS 'F' TO 'G' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 474500 Northing: 174800	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	968m NW	Status: Historical Licence No: 28/39/23/0198 Details: General Washing/Process Washing Direct Source: THAMES SURFACE WATER - NON TIDAL Point: CAVERSHAM LAKES - CAVERSHAM - PIPE Data Type: Point Name: CAVERSHAM LAKES TRUST LIMITED Easting: 474070 Northing: 175000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 06/08/2004 Expiry Date: 31/03/2014 Issue No: 1 Version Start Date: 06/08/2004 Version End Date: -



ID	Location	Details	
-	1209m N	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE, - RIVER THAMES, POINTS 'H' TO 'J' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475100 Northing: 175400	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1299m N	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE, - EYE MARSH DITCH, POINTS 'P' TO 'Q' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 474400 Northing: 175500	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1355m N	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE - FLOODED GRAVEL PIT, POINT 'R' Data Type: Point Name: TRUSTEES OF PHILLIMORE FARMS Easting: 474700 Northing: 175600	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1402m N	Status: Historical Licence No: TH/039/0023/004 Details: Hydroelectric Power Generation Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER THAMES AT SONNING MILL ISLAND Data Type: Point Name: Pridewater Estates Limited Easting: 475218 Northing: 175564	Annual Volume (m ³): 340588800 Max Daily Volume (m ³): 933120 Original Application No: NPS/WR/025319 Original Start Date: 30/01/2017 Expiry Date: 31/03/2028 Issue No: 5 Version Start Date: 31/07/2017 Version End Date: -
-	1671m N	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE - FLOODED GRAVEL PIT, POINT 'S' Data Type: Point Name: TRUSTEES OF PHILLIMORE FARMS Easting: 474500 Northing: 175900	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -



ID	Location	Details	
-	1773m N	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE, - BERRY'S BROOK, POINTS 'M' TO 'N' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 474100 Northing: 175900	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1776m NE	Status: Historical Licence No: 28/39/23/0038 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING EYE, - RIVER THAMES, POINTS 'K' TO 'L' Data Type: Line Name: TRUSTEES OF PHILLIMORE FARMS Easting: 475600 Northing: 175800	Annual Volume (m ³): 45460 Max Daily Volume (m ³): 636.44 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1992 Version End Date: -
-	1963m NE	Status: Historical Licence No: 28/39/23/0073 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SONNING FARM, SONNING, BERKSHIRE Data Type: Line Name: UNIVERSITY OF READING Easting: 475800 Northing: 175900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -
-	1963m NE	Status: Historical Licence No: 28/39/23/0073 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER THAMES AT SONNING FARM, SONNING, BERKSHIRE Data Type: Line Name: UNIVERSITY OF READING Easting: 475800 Northing: 175900	Annual Volume (m ³): 6000 Max Daily Volume (m ³): 590.98 Original Application No: WR.A/348/4 Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.



5.8 Potable abstractions

Records within 2000m

3

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on [page 54 >](#)

ID	Location	Details	
-	1015m W	Status: Historical Licence No: 28/39/23/0191 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT WATERSIDE CENTRE, THAMES VALLEY PARK ROAD Data Type: Point Name: WOKINGHAM WATERSIDE CENTRE LTD Easting: 473560 Northing: 173940	Annual Volume (m ³): 2600 Max Daily Volume (m ³): 25 Original Application No: - Original Start Date: 21/12/2000 Expiry Date: - Issue No: 3 Version Start Date: 01/04/2008 Version End Date: -
-	1281m N	Status: Historical Licence No: 28/39/23/0172 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: FOLLEY GRAVEL PIT, SONNING EYE Data Type: Point Name: READING SAILING CLUB Easting: 475000 Northing: 175500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1994 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2004 Version End Date: -
-	1597m NE	Status: Historical Licence No: 28/39/23/0148 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: THE MILL, SONNING EYE, OXON Data Type: Point Name: R D RICHARDS & CO (MAIDENHEAD) LTD Easting: 475400 Northing: 175700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 03/10/1979 Expiry Date: - Issue No: 100 Version Start Date: 07/09/1993 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.



5.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m

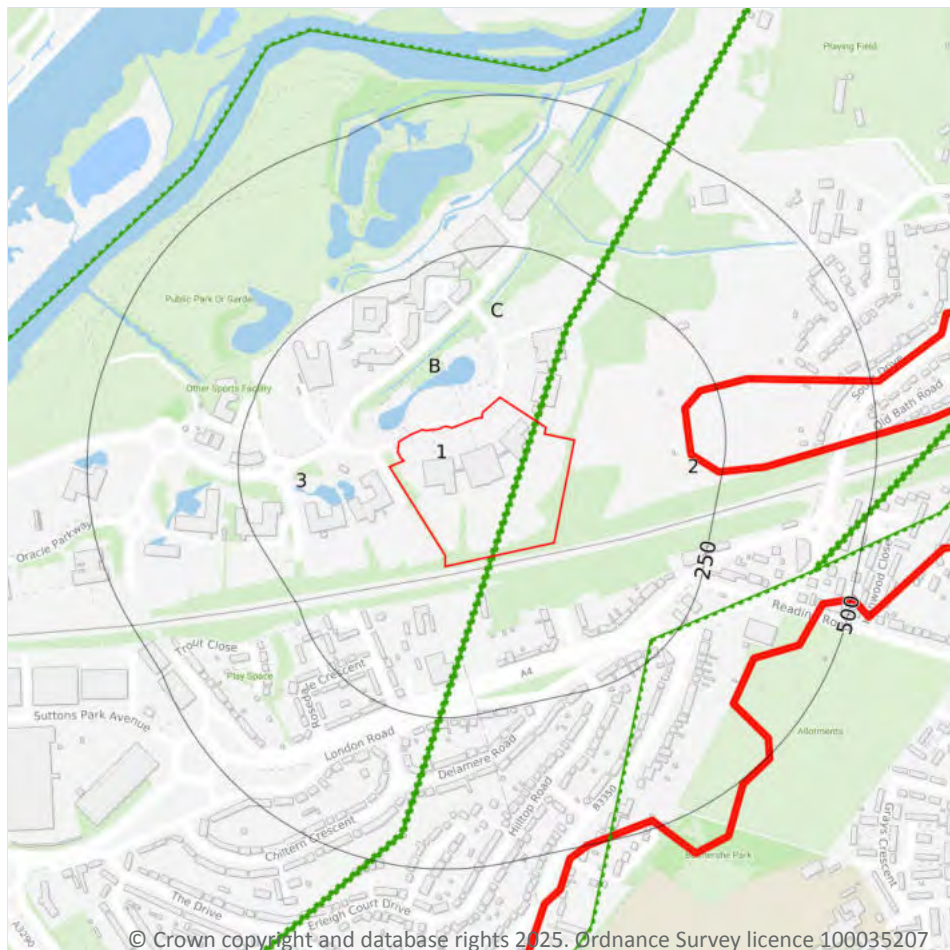
0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

4

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on [page 65 >](#)

ID	Location	Type of water feature	Ground level	Permanence	Name
B	83m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
C	156m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	163m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	164m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

4

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on [page 65 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 65 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Thames (Reading to Cookham)	GB106039023233	Chilterns South	Thames and Chilterns South

This data is sourced from the Environment Agency and Natural Resources Wales.



6.4 WFD Surface water bodies

Records identified

1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 65 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	544m N	River	Thames (Reading to Cookham)	GB106039023233 ↗	Moderate	Fail	Moderate	2019

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site

2

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

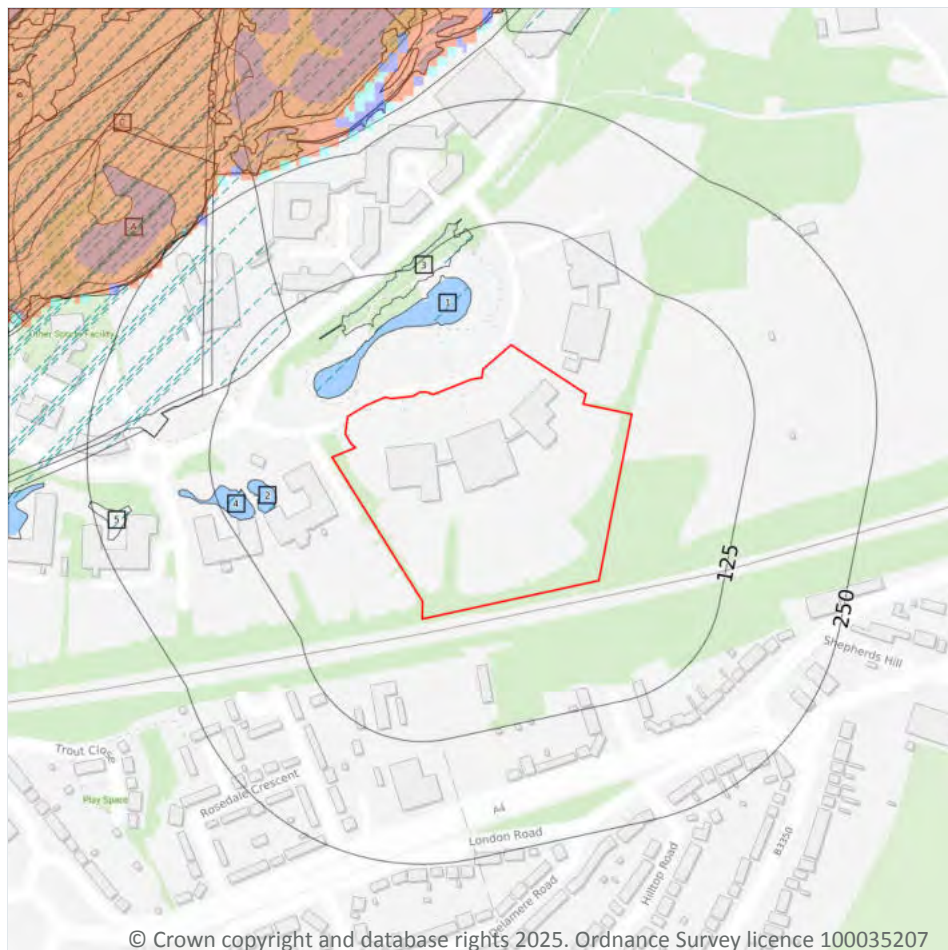
Features are displayed on the Hydrology map on [page 65 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Thatcham Tertiaries	GB40602G601600 ↗	Good	Good	Good	2019
3	On site	Berkshire Downs Chalk	GB40601G600900 ↗	Poor	Poor	Poor	2019

This data is sourced from the Environment Agency and Natural Resources Wales.



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- River and coastal flooding:
- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m

12

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

Features are displayed on the River and coastal flooding map on [page 68](#) >

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
1	22m NW	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
2	68m SW	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
3	73m N	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
4	95m SW	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
A	102m NW	06marchspring1947	1947-01-01 1947-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
A	142m W	06novemberautumn 1974	1974-01-01 1974-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
A	147m NW	06augustsummer197 7	1977-01-01 1977-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
5	212m W	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
A	246m NW	06decemberwinter2 000	2000-01-01 2000-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
C	247m NW	06januarynewyear20 03	2002-12-23 2003-01-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
C	248m NW	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
C	249m NW	Winter 2013/2014	2013-11-23 2014-02-28	Main river	Channel capacity exceeded (no raised defences)	Fluvial

This data is sourced from the Environment Agency and Natural Resources Wales.



7.3 Flood Defences

Records within 250m**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m**0**

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m**0**

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

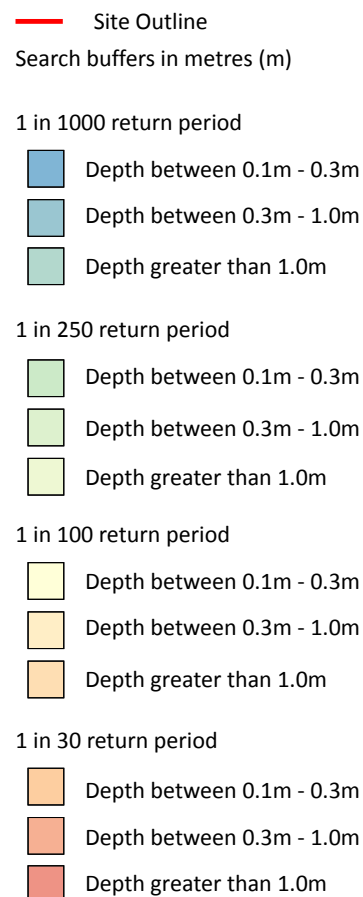
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on [page 72 >](#)

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

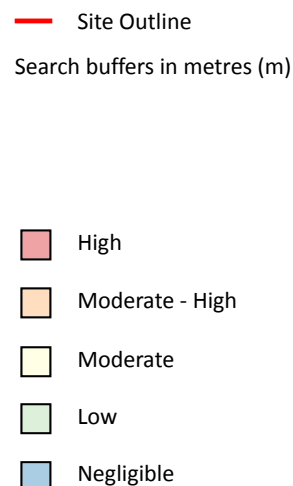
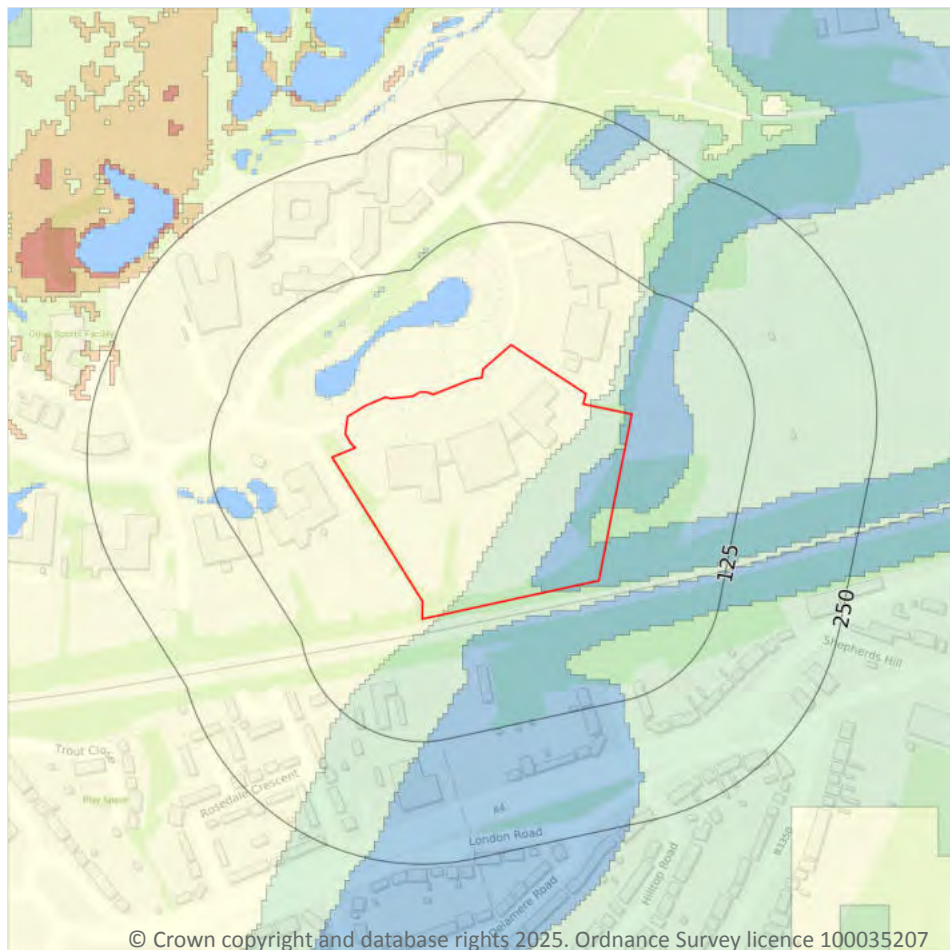
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

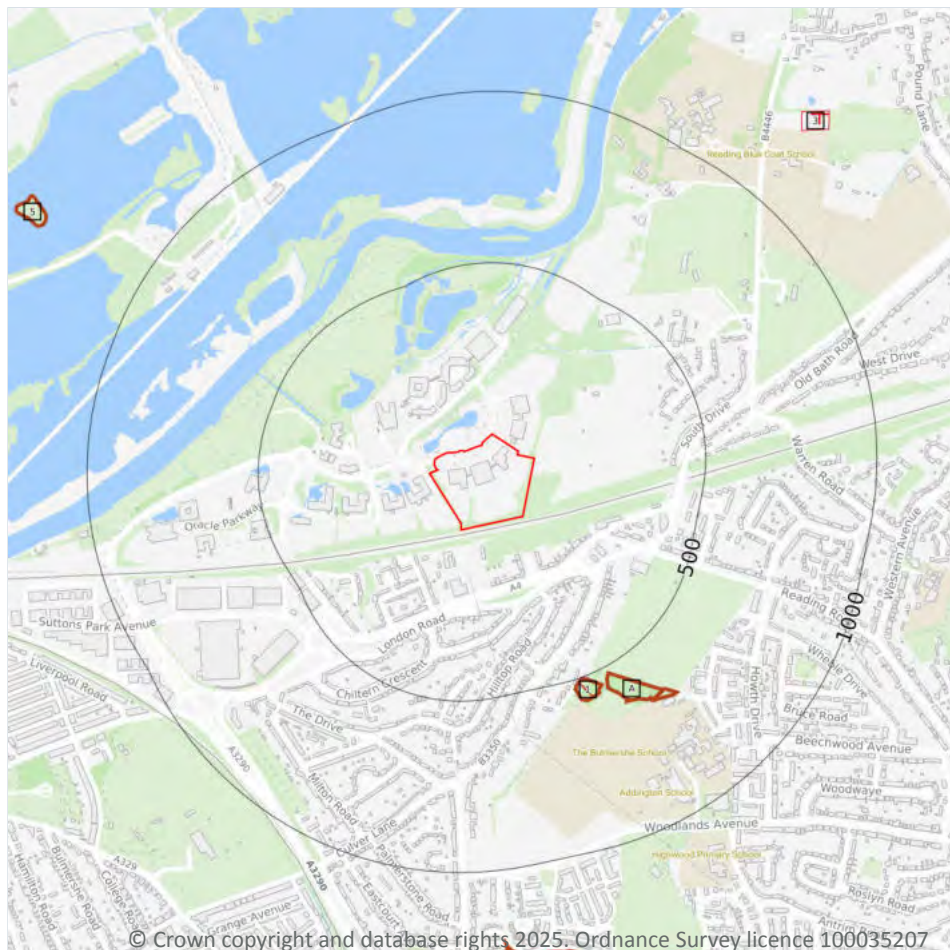
Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 74 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- ▨ Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m

2

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

Features are displayed on the Environmental designations map on [page 75 >](#)

ID	Location	Name	Data source
3	1235m NE	Ali's Pond	Natural England
B	1254m S	Highwood	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

10

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on [page 75 >](#)

ID	Location	Name	Woodland Type
1	504m S	(Tithe:great Bramleys Park)	Ancient & Semi-Natural Woodland
A	521m SE	(Tithe:great Bramleys Park)	Ancient & Semi-Natural Woodland
A	651m SE	(Tithe:colcrafts Coppice)	Ancient & Semi-Natural Woodland
2	1220m S	High Wood(tithe:south Land Coppice)	Ancient & Semi-Natural Woodland
4	1267m S	High Wood(tithe:wood Ajoining Coppice)	Ancient & Semi-Natural Woodland
5	1332m NW	Unknown	Ancient & Semi-Natural Woodland
6	1351m S	(Tithe:south Land Coppice)	Ancient & Semi-Natural Woodland
-	1446m S	High Wood(tithe:south Land Coppice)	Ancient Replanted Woodland
-	1511m S	Southland Wood(tithe:park Coppice)	Ancient & Semi-Natural Woodland
-	1929m E	Holmemoor Copse	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.



10.8 Biosphere Reserves

Records within 2000m

0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m

0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

7

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Sheeplands	Groundwater	88	Existing

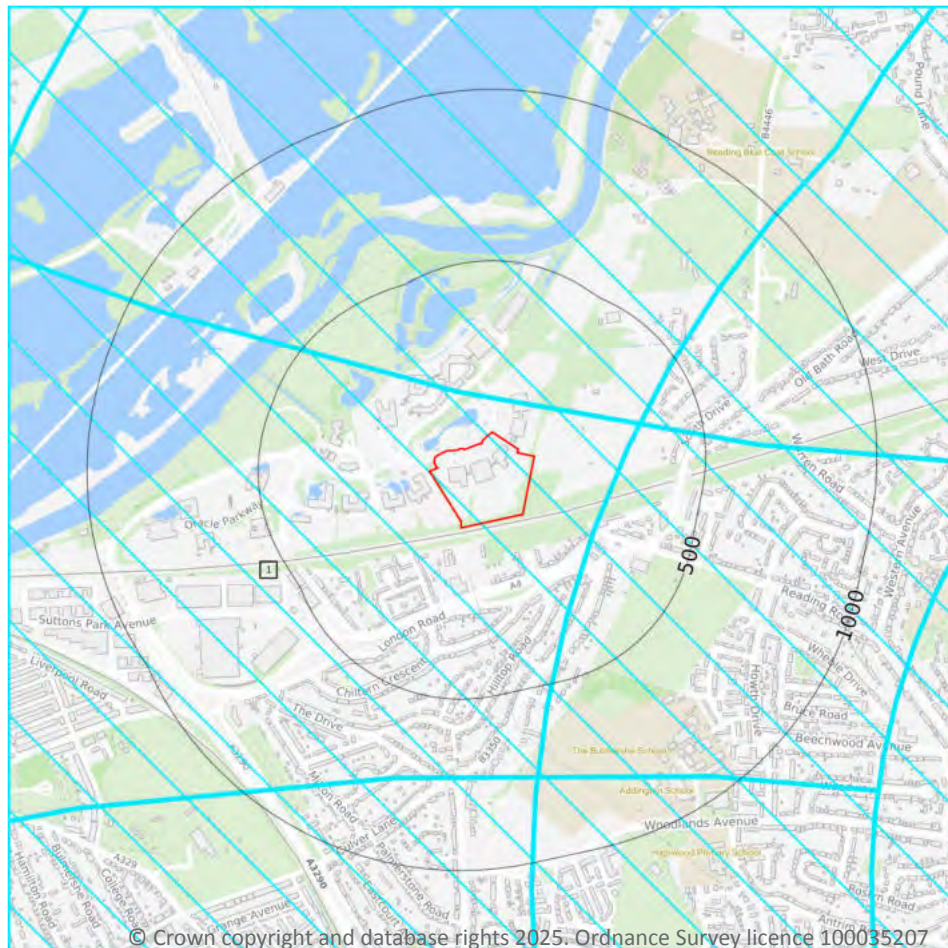


Location	Name	Type	NVZ ID	Status
465m W	Sheeplands	Groundwater	88	Existing
1262m W	Thames Wallingford to Caversham NVZ	Surface Water	481	Existing
1435m E	Sheeplands	Groundwater	88	Existing
1736m N	Sheeplands	Groundwater	88	Existing
1758m N	Sheeplands	Groundwater	88	Existing
1853m N	Sheeplands	Groundwater	88	Existing

This data is sourced from Natural England and Natural Resources Wales.



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on [page 81](#) >

ID	Location	Type of developments requiring consultation
1	On site	https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0300000500000&notes=&location=473987,173912%20(IRZ%20polygon%20centre)

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

0

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

This data is sourced from Natural England and Natural Resources Wales.



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.



This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

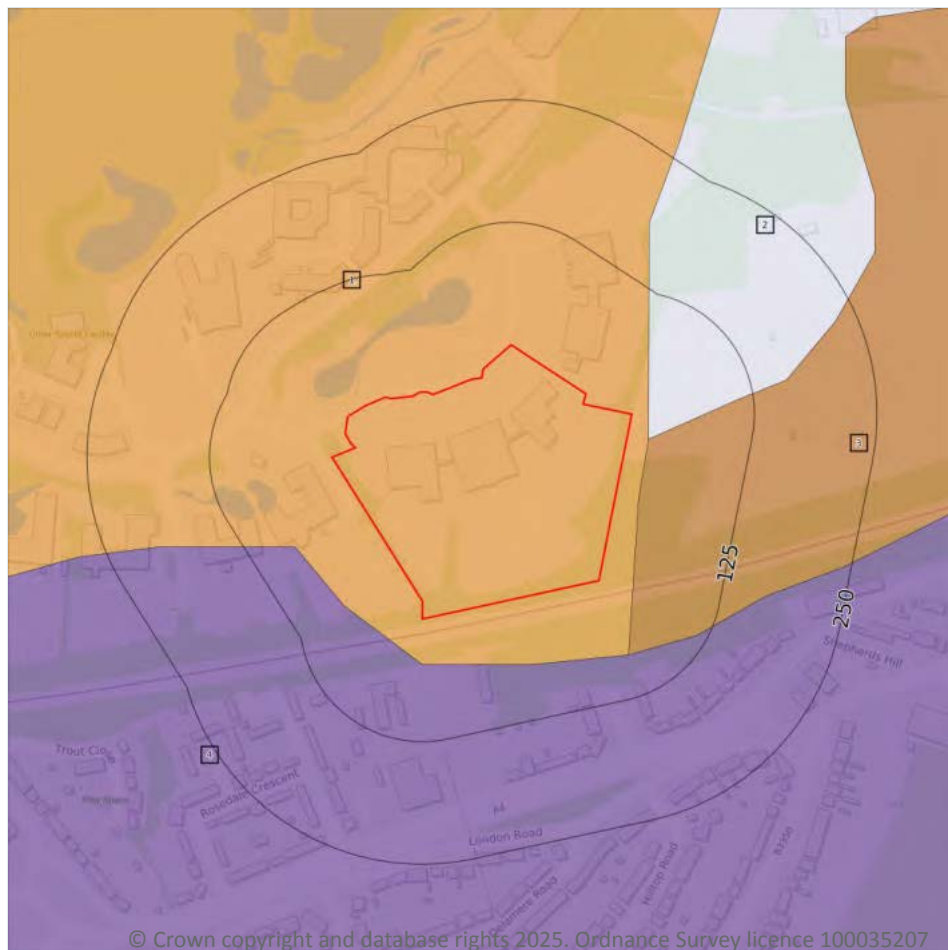
0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

4

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on [page 85](#) >

ID	Location	Classification	Description
1	On site	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

ID	Location	Classification	Description
2	17m E	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.
3	22m E	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
4	37m SW	Urban	Non-agricultural/no quality assigned

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.



12.5 Countryside Stewardship Schemes

Records within 250m

0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.



13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

12

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on [page 88](#) >

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	26m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	38m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	63m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
4	67m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	72m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	82m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	100m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	132m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	132m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	238m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	249m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK

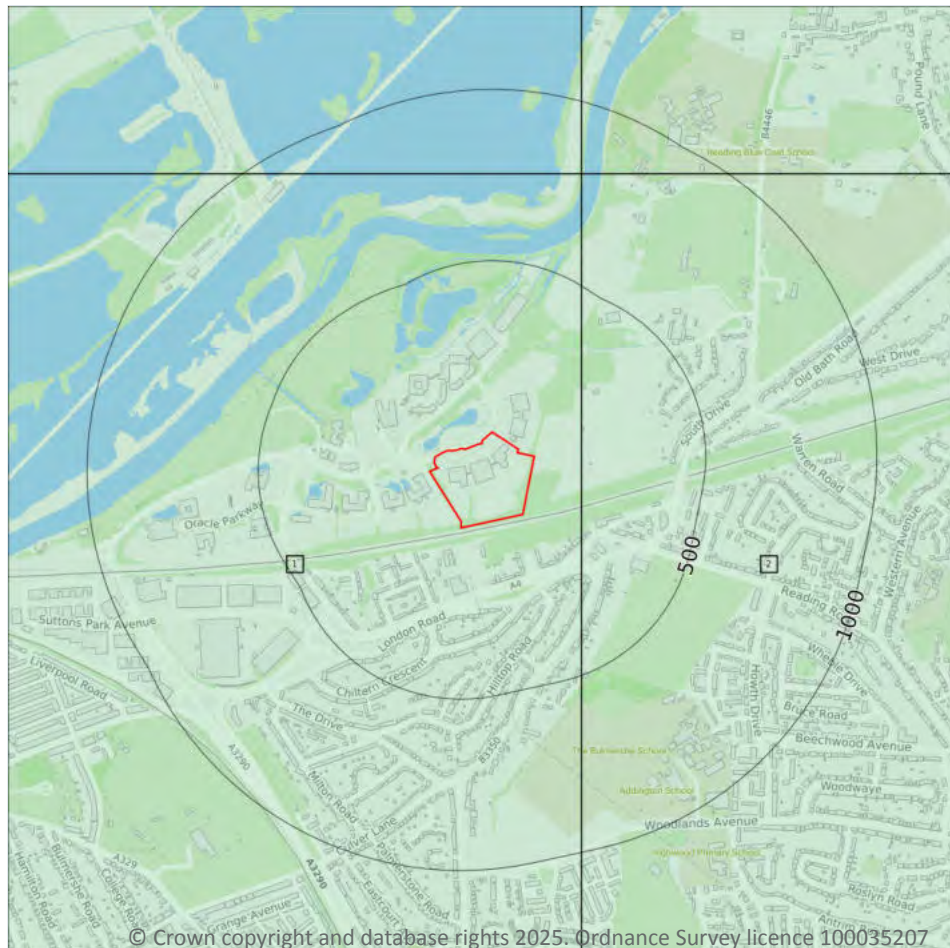


Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

2

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

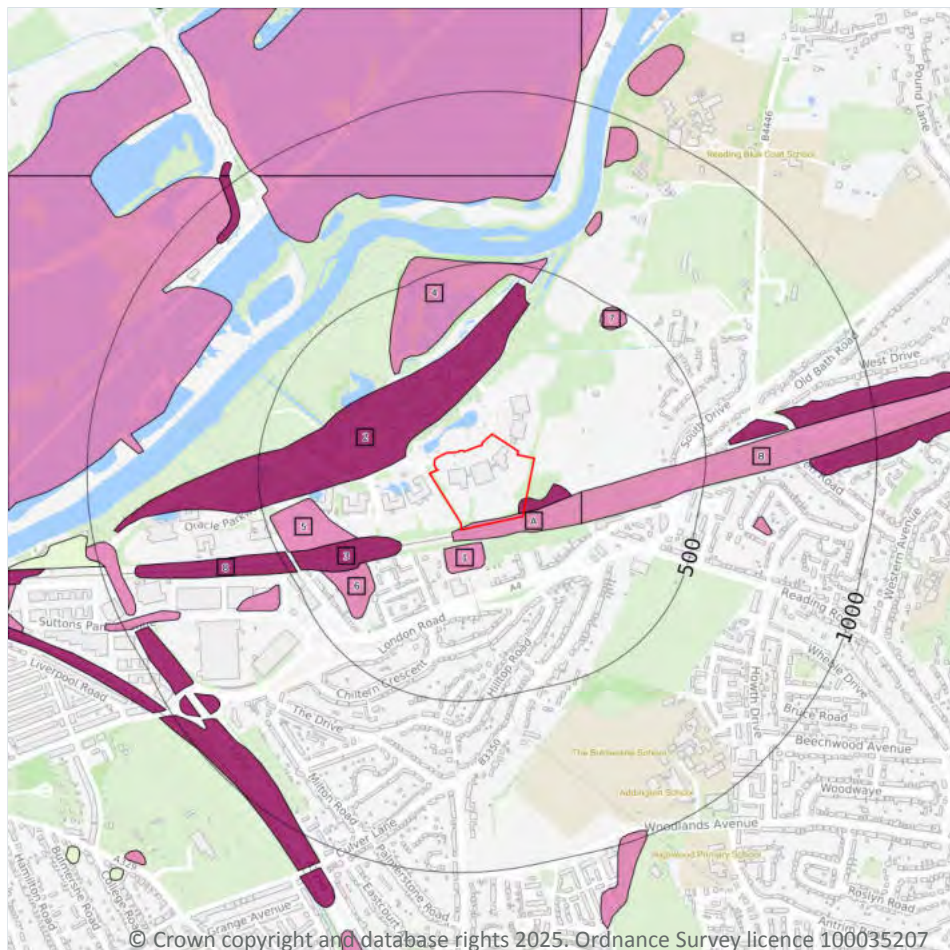
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 91](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SU77SW
2	138m E	Full	Full	Full	No coverage	SU77SE

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Artificial and made ground



- Site Outline**
- Search buffers in metres (m)**
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

11

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 92](#) >

ID	Location	LEX Code	Description	Rock description
A	On site	WGR-VOID	Worked Ground (Undivided)	Void
A	On site	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
1	45m S	WGR-VOID	Worked Ground (Undivided)	Void
2	85m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

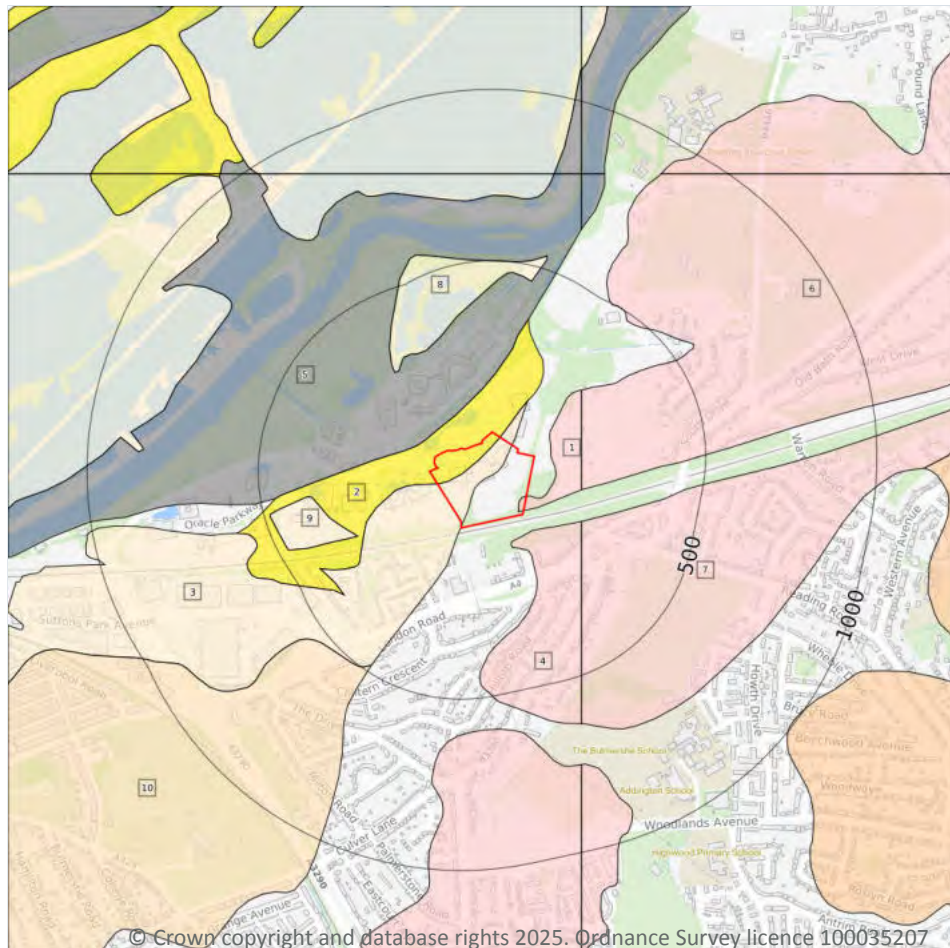


ID	Location	LEX Code	Description	Rock description
B	154m E	WGR-VOID	Worked Ground (Undivided)	Void
3	179m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	270m NW	WGR-VOID	Worked Ground (Undivided)	Void
5	279m SW	WGR-VOID	Worked Ground (Undivided)	Void
6	291m SW	WGR-VOID	Worked Ground (Undivided)	Void
7	432m NE	WGR-VOID	Worked Ground (Undivided)	Void
8	479m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m

10

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on [page 94](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	BHT-XSV	Boyn Hill Gravel Member - Sand And Gravel	Sand And Gravel
2	On site	LASI-XCZ	Langley Silt Member - Clay And Silt	Clay And Silt
3	On site	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel
4	55m SE	BHT-XSV	Boyn Hill Gravel Member - Sand And Gravel	Sand And Gravel



ID	Location	LEX Code	Description	Rock description
5	58m NW	ALV-Z	Alluvium - Silt (unlithified Deposits Coding Scheme)	Silt
6	138m E	BHT-XSV	Boyn Hill Gravel Member - Sand And Gravel	Sand And Gravel
7	172m E	BHT-XSV	Boyn Hill Gravel Member - Sand And Gravel	Sand And Gravel
8	270m NW	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel
9	279m SW	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel
10	478m SW	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

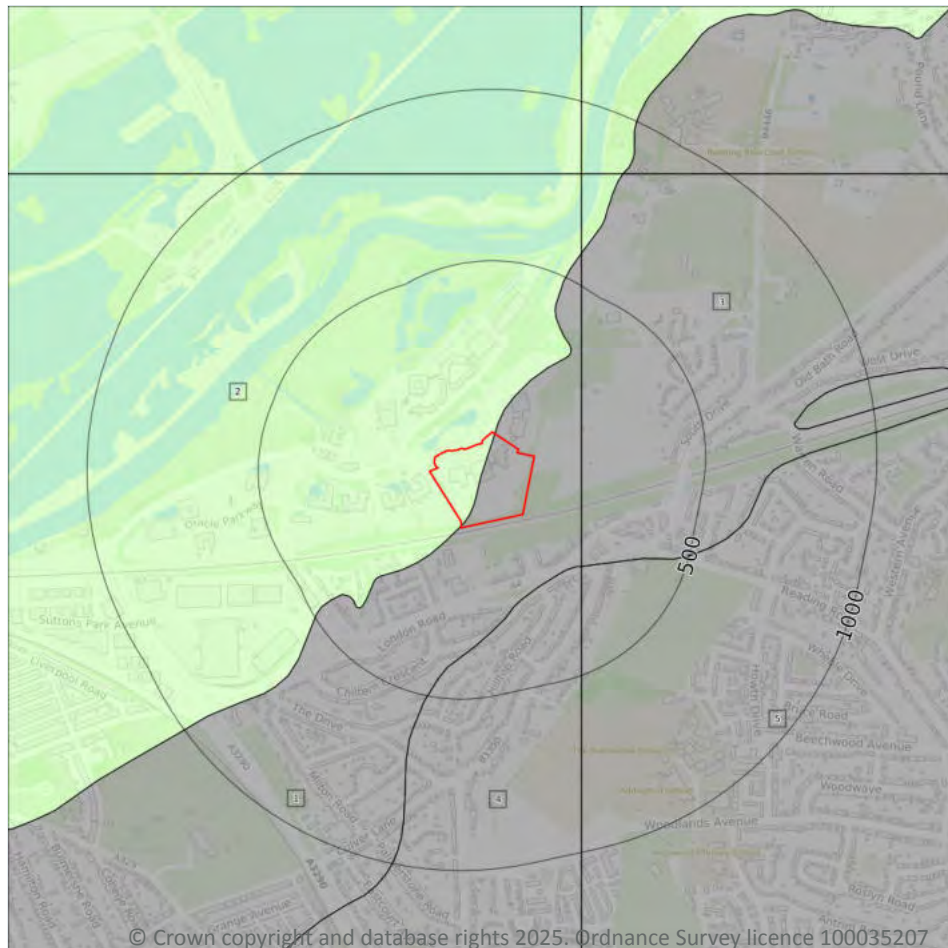
0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

..... Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

5

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 96](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
2	On site	LSNCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated) - Chalk	Campanian Age - Turonian Age

ID	Location	LEX Code	Description	Rock age
3	138m E	LMBE- CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
4	204m SE	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
5	229m SE	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

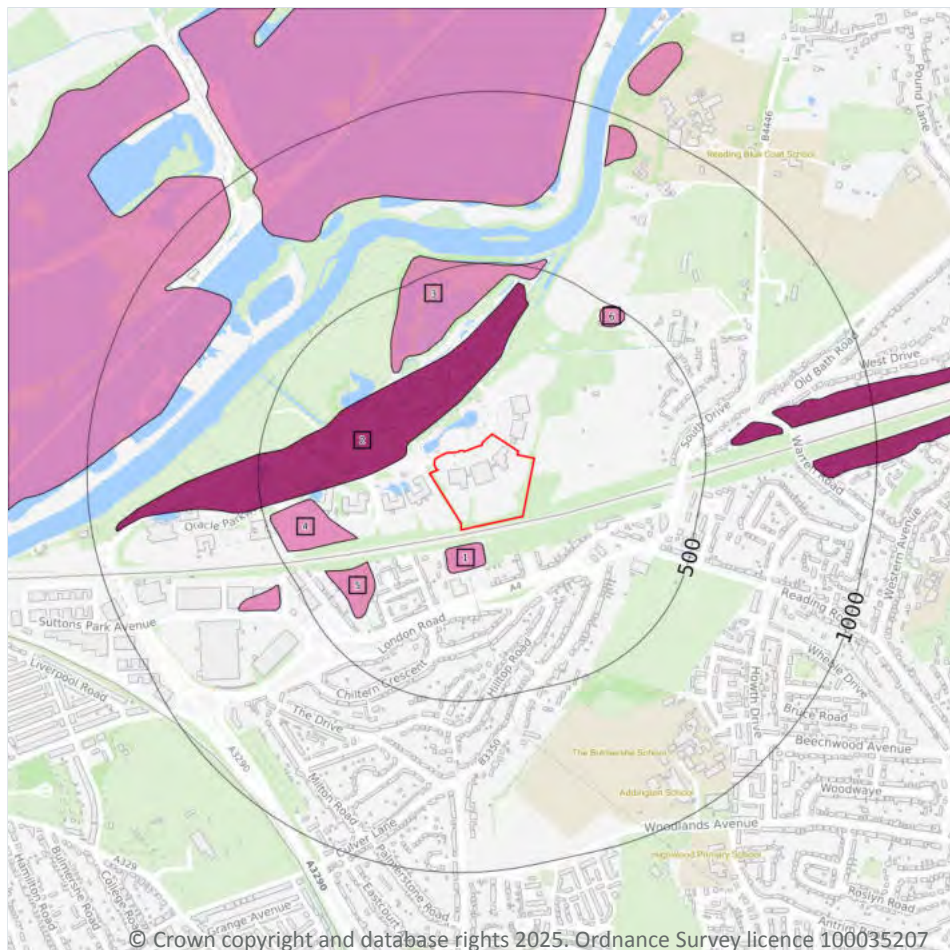
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 98](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	EW268_reading_v4

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Artificial and made ground



- Site Outline
- Search buffers in metres (m)
- Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m

6

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 99](#) >

ID	Location	LEX Code	Description	Rock description
1	46m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	85m NW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	274m NW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
4	279m SW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID



ID	Location	LEX Code	Description	Rock description
5	289m SW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
6	437m NE	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

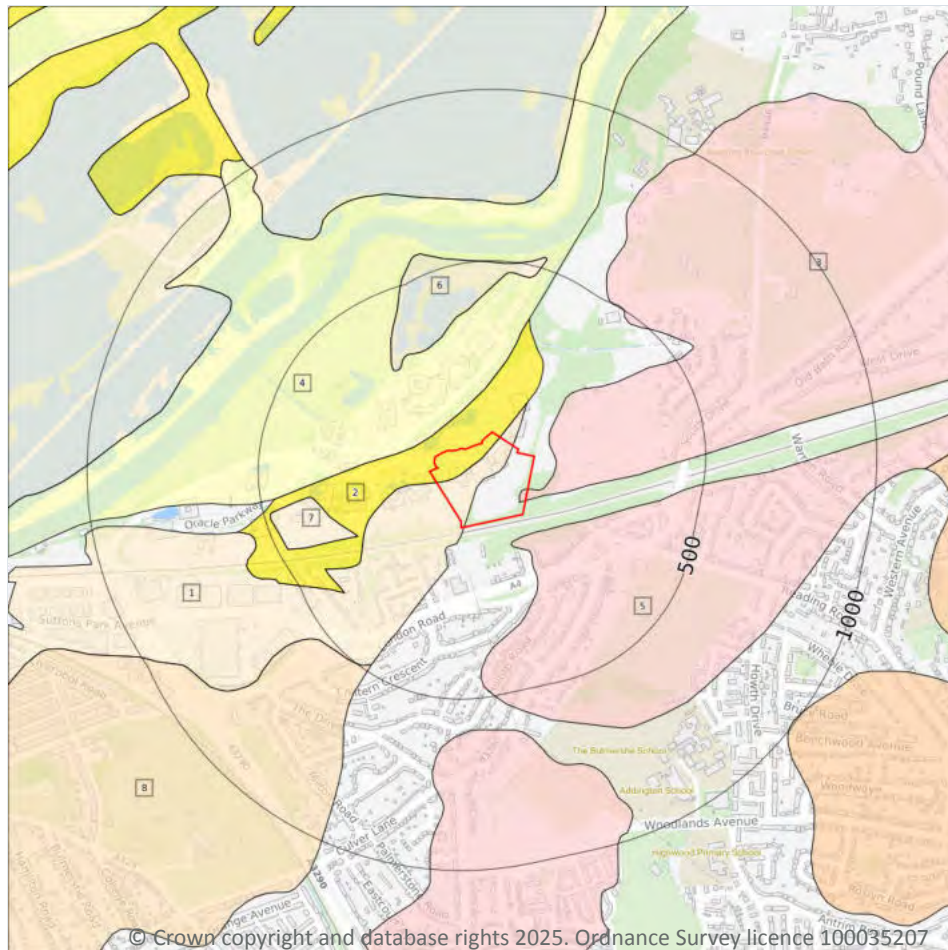
0

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m

8

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on [page 101](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL
2	On site	LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT
3	On site	BHT-XSV	BOYN HILL GRAVEL MEMBER	SAND AND GRAVEL
4	57m NW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
5	61m S	BHT-XSV	BOYN HILL GRAVEL MEMBER	SAND AND GRAVEL
6	274m NW	KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL
7	279m SW	KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL
8	478m SW	TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	3
---------------------------	----------

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Low	Very Low
On site	Intergranular	Very High	High
On site	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0
----------------------------	----------

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

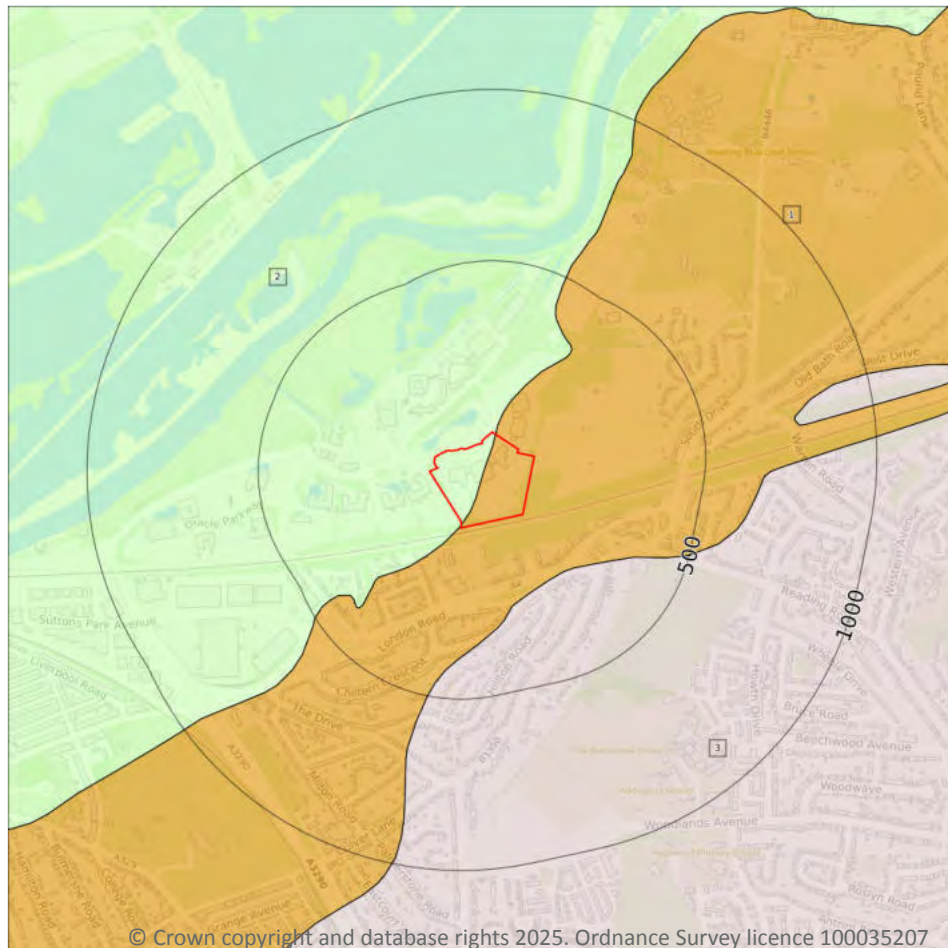
15.7 Landslip permeability (50k)

Records within 50m	0
---------------------------	----------

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m

3

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 103](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN
2	On site	SNCK-CHLK	SEAFORD CHALK FORMATION AND NEWHAVEN CHALK FORMATION (UNDIFFERENTIATED) - CHALK	CONIACIAN
3	205m SE	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN



This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m

2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Moderate	Very Low
On site	Fracture	Very High	Very High

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

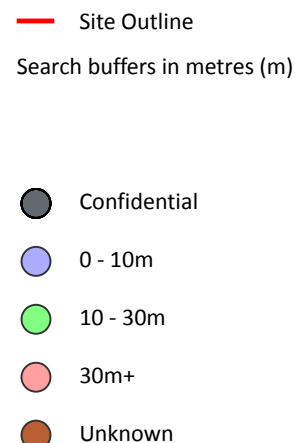
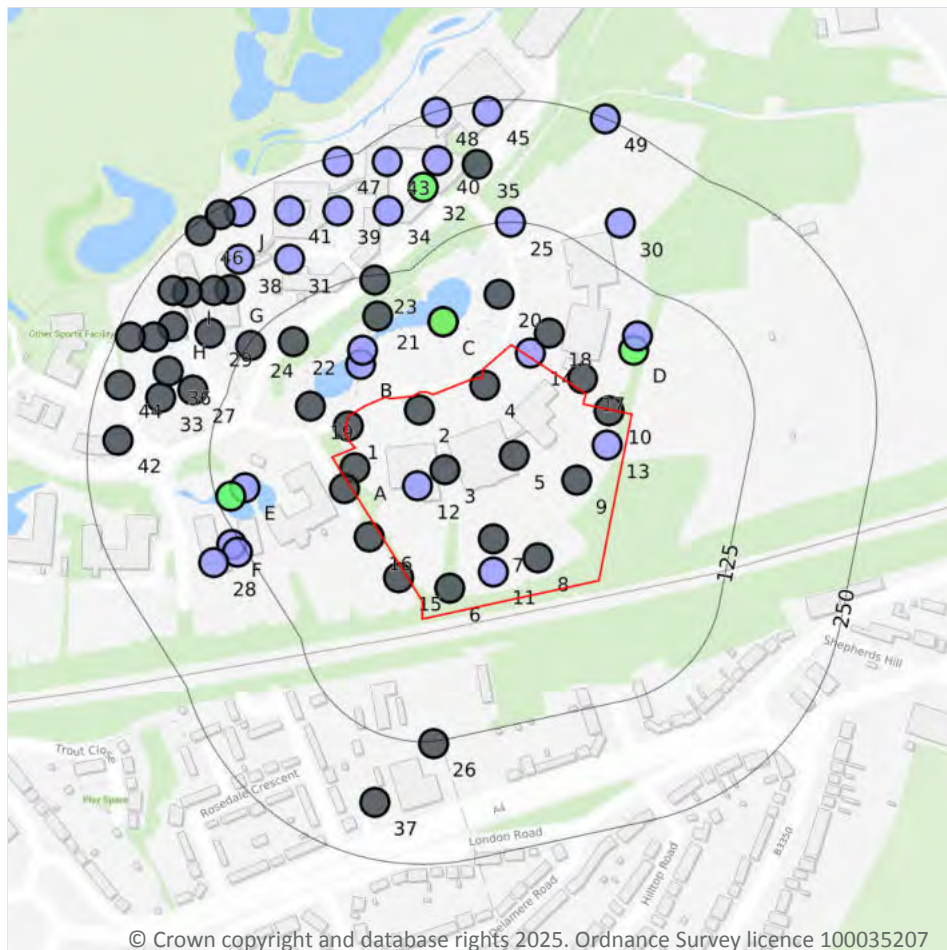
0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



16 Boreholes



16.1 BGS Boreholes

Records within 250m

71

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on [page 105 >](#)

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	474573 174163	MICROSOFT LTD TVB PARK 4	-	Y	N/A
2	On site	474646 174180	MICROSOFT LTD TVB PARK 5	-	Y	N/A
3	On site	474672 174119	MICROSOFT LTD TVB PARK 6	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	On site	474713 174205	MICROSOFT LTD TVB PARK 7	-	Y	N/A
5	On site	474743 174133	MICROSOFT LTD TVB PARK 8	-	Y	N/A
6	On site	474677 173998	MICROSOFT LTD TVB PARK TP 5	-	Y	N/A
7	On site	474721 174048	MICROSOFT LTD TVB PARK TP 6	-	Y	N/A
8	On site	474767 174029	MICROSOFT LTD TVB PARK TP 7	-	Y	N/A
9	On site	474806 174108	MICROSOFT LTD TVB PARK TP 8	-	Y	N/A
10	On site	474839 174179	MICROSOFT LTD TVB PARK TP 9	-	Y	N/A
11	On site	474721 174015	NORTH EARLEY BUSINESS PARK READING TP 40	4.0	N	17521011 ↗
12	On site	474644 174102	NORTH EARLEY BUSINESS PARK READING TP 41	4.2	N	17521012 ↗
13	On site	474837 174144	NORTH EARLEY BUSINESS PARK READING TP 43	4.1	N	17521014 ↗
A	On site	474580 174121	MICROSOFT LTD TVB PARK 3	-	Y	N/A
14	4m NE	474759 174238	NORTH EARLEY BUSINESS PARK READING TP 44	4.4	N	17521015 ↗
A	6m SW	474570 174100	MICROSOFT LTD TVB PARK TP 3	-	Y	N/A
15	8m SW	474625 174009	MICROSOFT LTD TVB PARK 2	-	Y	N/A
16	11m SW	474595 174050	MICROSOFT LTD TVB PARK TP 4	-	Y	N/A
17	11m NE	474812 174212	MICROSOFT LTD TVB PARK TP 10	-	Y	N/A
18	31m NE	474778 174258	MICROSOFT LTD TVB PARK 9	-	Y	N/A
19	39m W	474535 174184	MICROSOFT LTD TVB PARK TP 2	-	Y	N/A
B	40m NW	474586 174226	NORTH EARLEY BUSINESS PARK READING 7	10.0	N	17520797 ↗
20	53m N	474727 174298	MICROSOFT LTD TVB PARK TP 11	-	Y	N/A
B	53m NW	474588 174241	NORTH EARLEY BUSINESS PARK READING TP 42	3.6	N	17521013 ↗
C	63m NW	474670 174270	SONNING WATERWORKS	22.86	N	428166 ↗
C	63m NW	474670 174270	SONNING WATERWORKS	30.48	N	428167 ↗
C	63m NW	474670 174270	SONNING WATERWORKS	22.86	N	428778 ↗
D	65m N	474864 174241	NORTH EARLEY BUSINESS PARK READING 8	11.0	N	17520803 ↗



ID	Location	Grid reference	Name	Length	Confidential	Web link
D	79m NE	474868 174255	NORTH EARLEY BUSINESS PARK READING TP 46	3.7	N	17521017 ↗
21	83m N	474603 174275	MICROSOFT LTD TVB PARK TP 13	-	Y	N/A
E	94m W	474468 174101	NORTH EARLEY BUSINESS PARK READING TP 52	3.7	N	17521023 ↗
22	94m NW	474517 174249	MICROSOFT LTD TVB PARK TP 1	-	Y	N/A
E	110m W	474454 174092	NORTH EARLEY BUSINESS PARK READING 6	10.6	N	17520787 ↗
23	120m N	474600 174312	MICROSOFT LTD TVB PARK TP 14	-	Y	N/A
24	123m NW	474474 174246	THAMES VALLEY PK READING 13	-	Y	N/A
25	125m N	474739 174371	NORTH EARLEY BUSINESS PARK READING TP 45	4.1	N	17521016 ↗
26	127m S	474660 173840	E.READING TOWN CENTRE 2	-	Y	N/A
F	133m SW	474455 174043	NORTH EARLEY BUSINESS PARK READING TP 49	2.0	N	17521020 ↗
F	133m SW	474460 174035	NORTH EARLEY BUSINESS PARK READING TP 50	3.6	N	17521021 ↗
27	158m NW	474415 174200	THAMES VALLEY PK READING 10	-	Y	N/A
28	160m SW	474436 174024	NORTH EARLEY BUSINESS PARK READING TP 51	3.2	N	17521022 ↗
29	164m NW	474432 174258	THAMES VALLEY PK READING 16	-	Y	N/A
30	165m NE	474851 174370	NORTH EARLEY BUSINESS PARK READING TP 47	3.7	N	17521018 ↗
31	168m NW	474513 174333	NORTH EARLEY BUSINESS PARK READING TP 7	2.65	N	17520944 ↗
G	177m NW	474453 174303	THAMES VALLEY PK READING 12	-	Y	N/A
32	184m NW	474650 174407	NORTH EARLEY BUSINESS PARK READING 5	10.6	N	17520779 ↗
33	185m W	474382 174192	THAMES VALLEY PK READING 7	-	Y	N/A
34	186m NW	474614 174383	NORTH EARLEY BUSINESS PARK READING TP 22	4.2	N	17520990 ↗
35	187m N	474705 174430	MICROSOFT LTD TVB PARK 1	-	Y	N/A
G	188m NW	474436 174302	THAMES VALLEY PK READING TP14A	-	Y	N/A

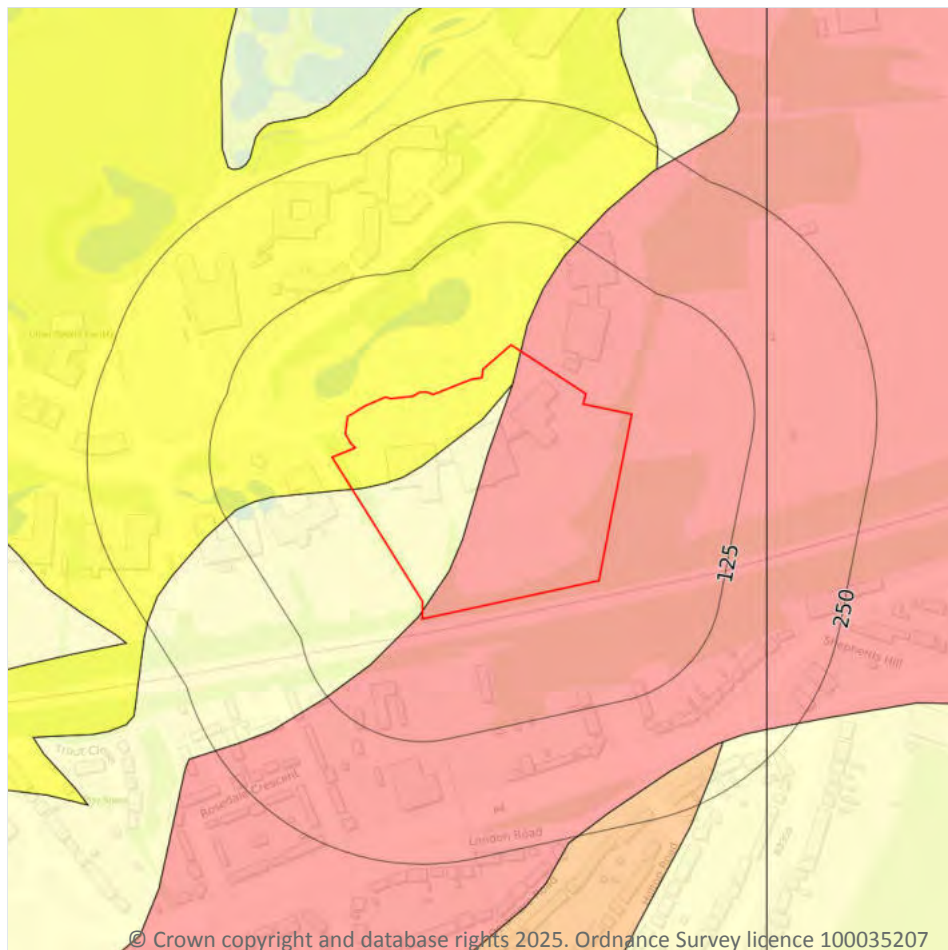


ID	Location	Grid reference	Name	Length	Confidential	Web link
36	188m W	474390 174219	THAMES VALLEY PK READING TP11	-	Y	N/A
37	193m S	474600 173780	E.READING TOWN CENTRE 1	-	Y	N/A
38	195m NW	474462 174333	NORTH EARLEY BUSINESS PARK READING TP 1	2.8	N	17520872 ↗
39	196m N	474563 174383	NORTH EARLEY BUSINESS PARK READING TP 15	4.35	N	17520983 ↗
H	200m NW	474395 174265	THAMES VALLEY PK READING 9	-	Y	N/A
40	203m N	474664 174434	NORTH EARLEY BUSINESS PARK READING TP 28	4.2	N	17520996 ↗
I	207m NW	474409 174300	THAMES VALLEY PK READING TP12	-	Y	N/A
41	214m NW	474513 174383	NORTH EARLEY BUSINESS PARK READING TP 8	4.3	N	17520955 ↗
H	214m W	474375 174254	THAMES VALLEY PK READING TP10	-	Y	N/A
42	219m W	474339 174149	THAMES VALLEY PK READING 2	-	Y	N/A
I	220m NW	474395 174302	THAMES VALLEY PK READING 15	-	Y	N/A
43	226m NW	474613 174433	NORTH EARLEY BUSINESS PARK READING TP 23	4.5	N	17520991 ↗
44	229m W	474340 174205	THAMES VALLEY PK READING 5	-	Y	N/A
J	236m NW	474463 174382	NORTH EARLEY BUSINESS PARK READING TP 2	4.3	N	17520888 ↗
H	236m W	474351 174254	THAMES VALLEY PK READING 14	-	Y	N/A
45	239m N	474715 174484	NORTH EARLEY BUSINESS PARK READING TP 33	4.8	N	17521001 ↗
46	241m NW	474423 174362	THAMES VALLEY PK READING 11	-	Y	N/A
J	244m NW	474443 174379	THAMES VALLEY PK READING TP 15	-	Y	N/A
47	245m N	474563 174433	NORTH EARLEY BUSINESS PARK READING TP 16	4.1	N	17520984 ↗
48	249m N	474663 174483	NORTH EARLEY BUSINESS PARK READING TP 29	4.6	N	17520997 ↗
49	250m N	474835 174477	NORTH EARLEY BUSINESS PARK READING TP 48	4.0	N	17521019 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

3

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

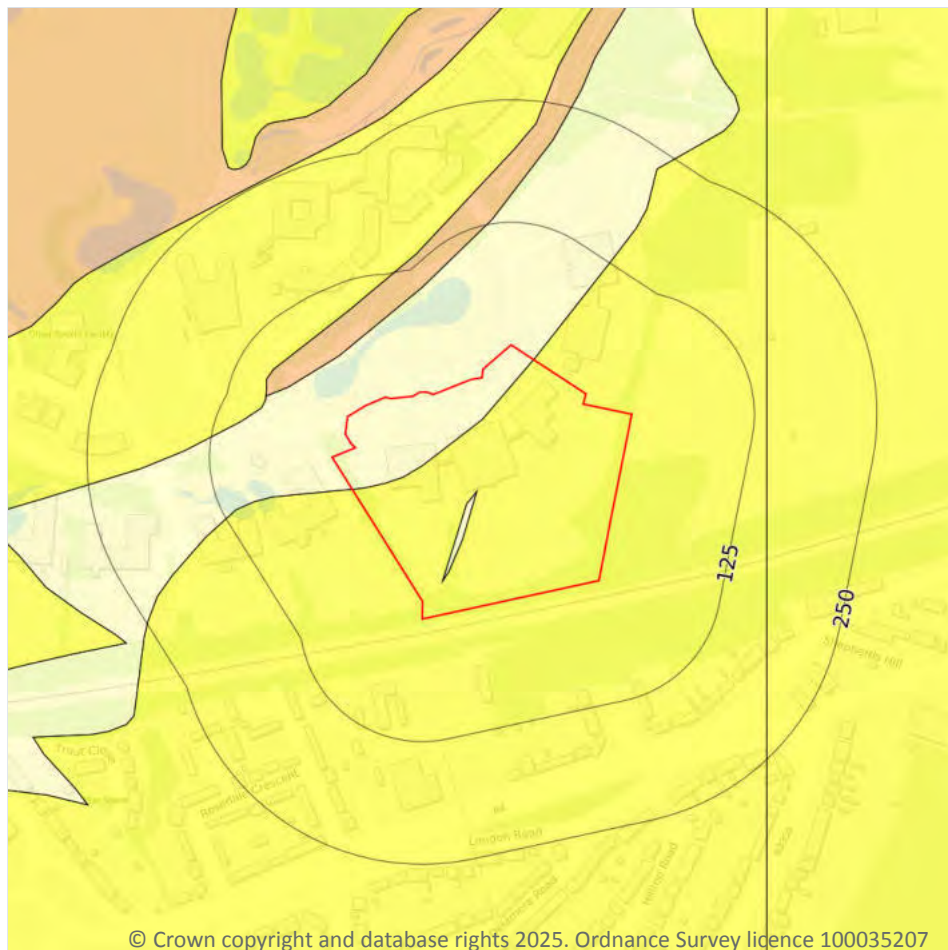
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 109](#) >

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.
On site	Moderate	Ground conditions predominantly high plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.2 Running sands

Records within 50m

2

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on [page 111](#) >

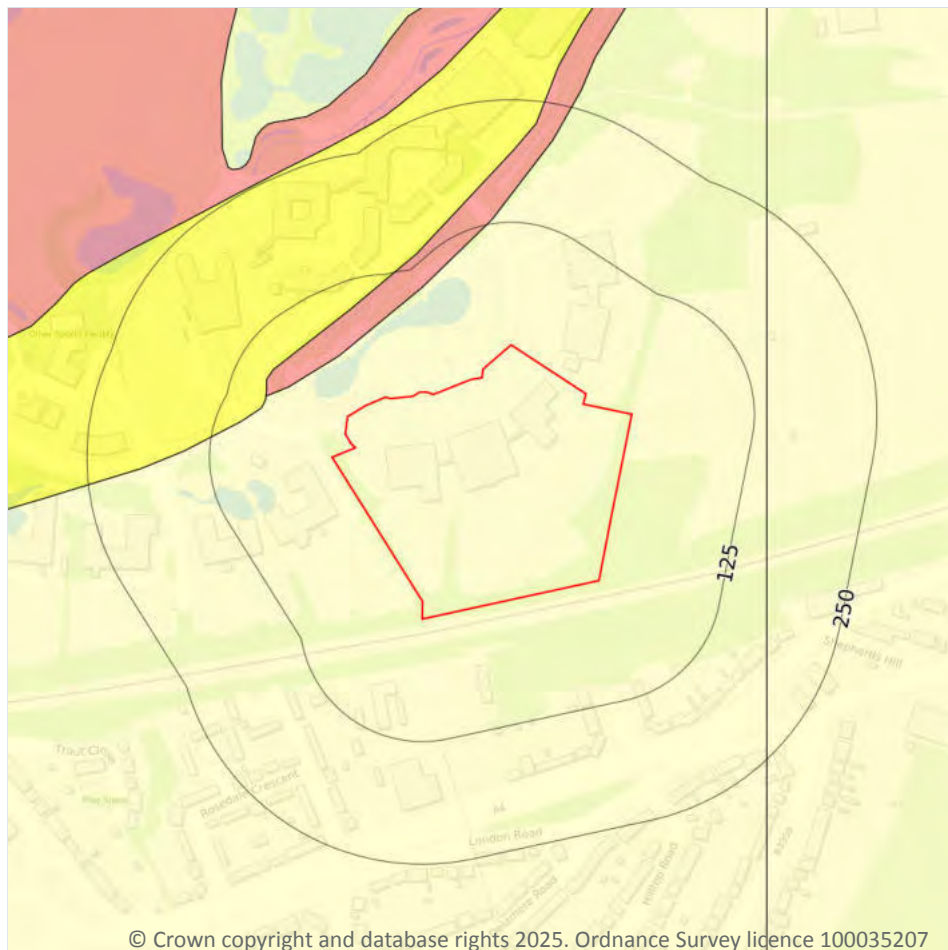
Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

1

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

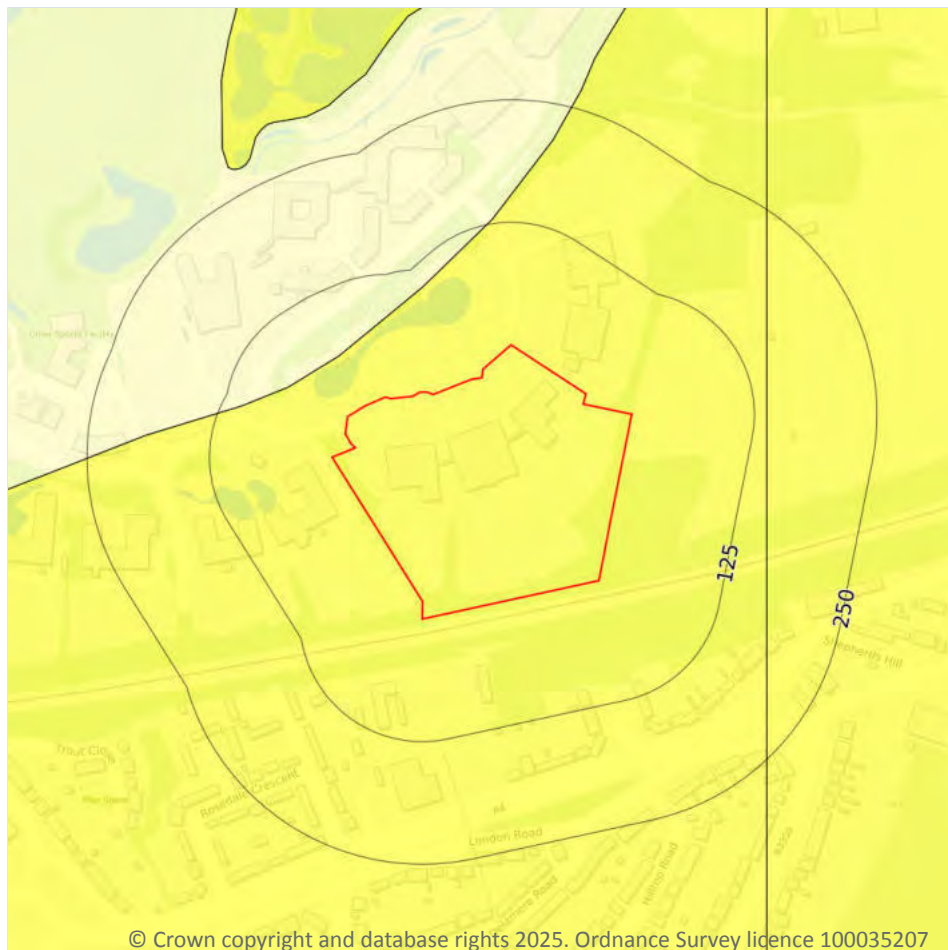
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 113](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

1

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

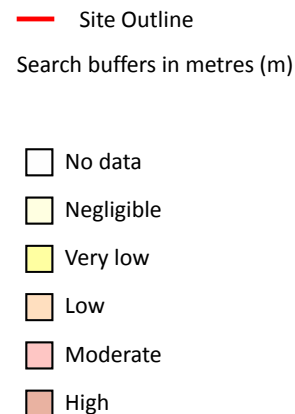
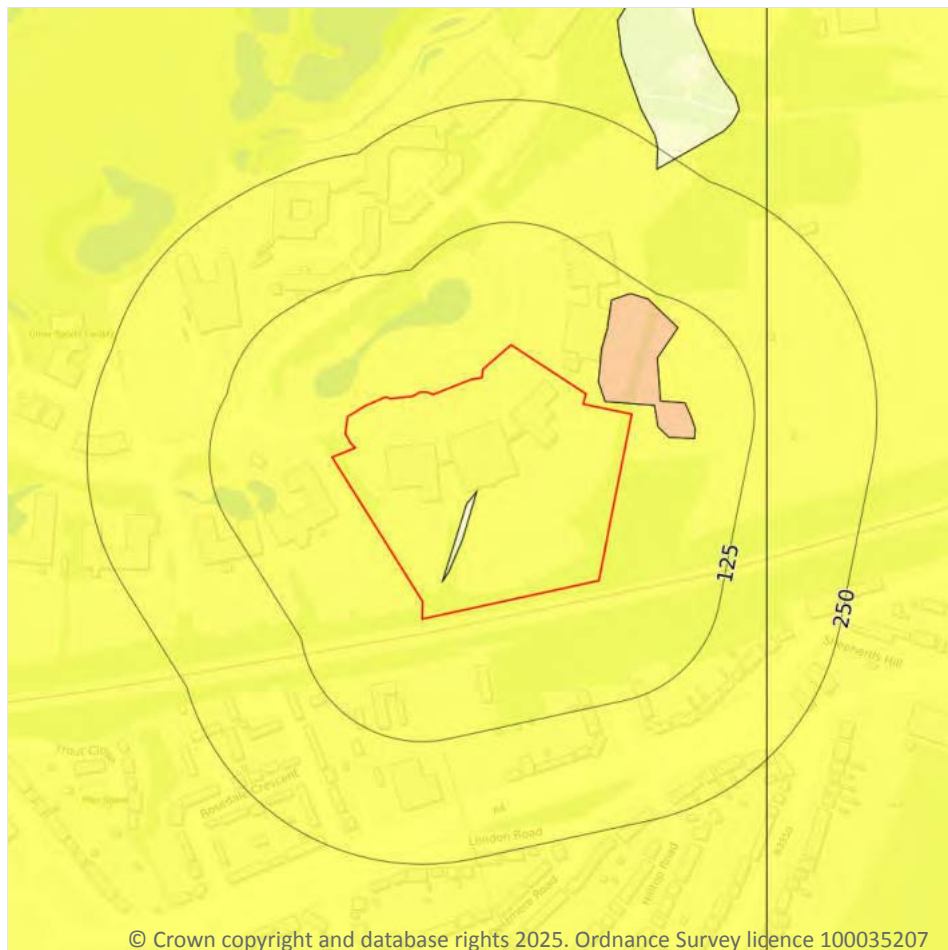
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 114 >](#)

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m

3

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on [page 115 >](#)

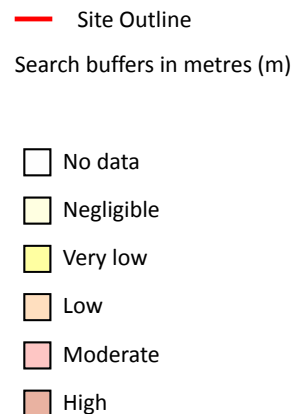
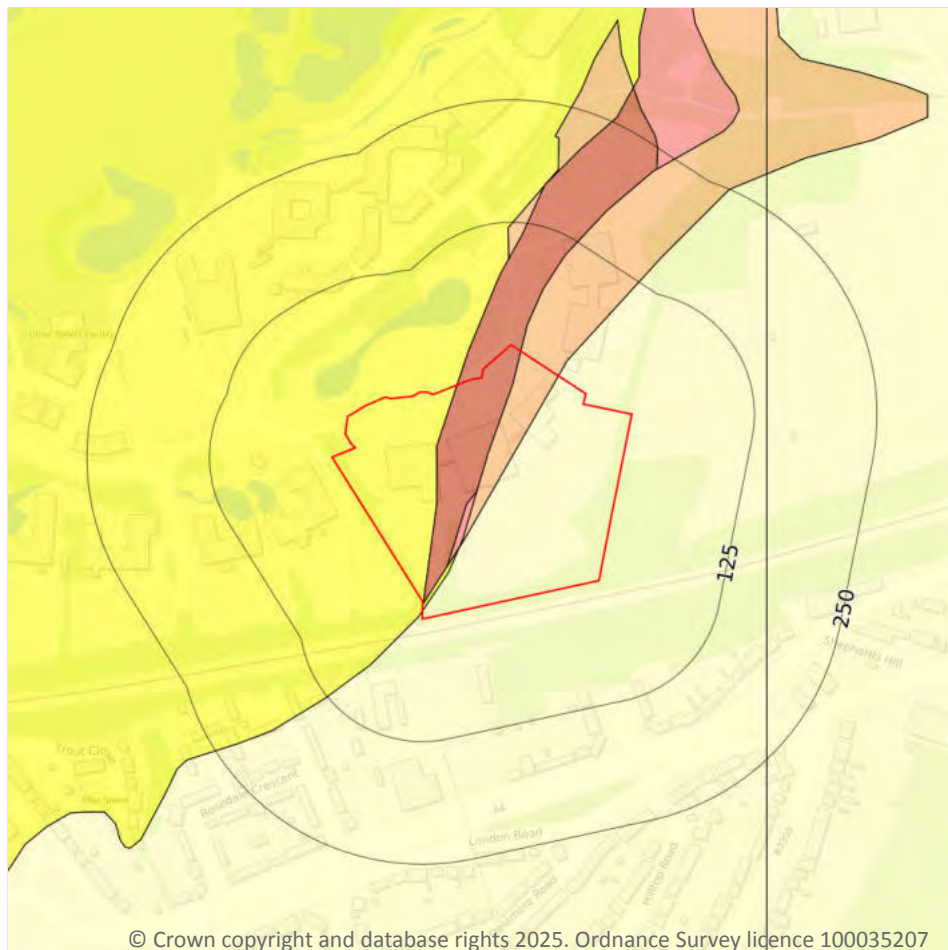
Location	Hazard rating	Details
On site	Negligible	Slope instability problems are not thought to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.
7m N	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

5

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 117](#) >

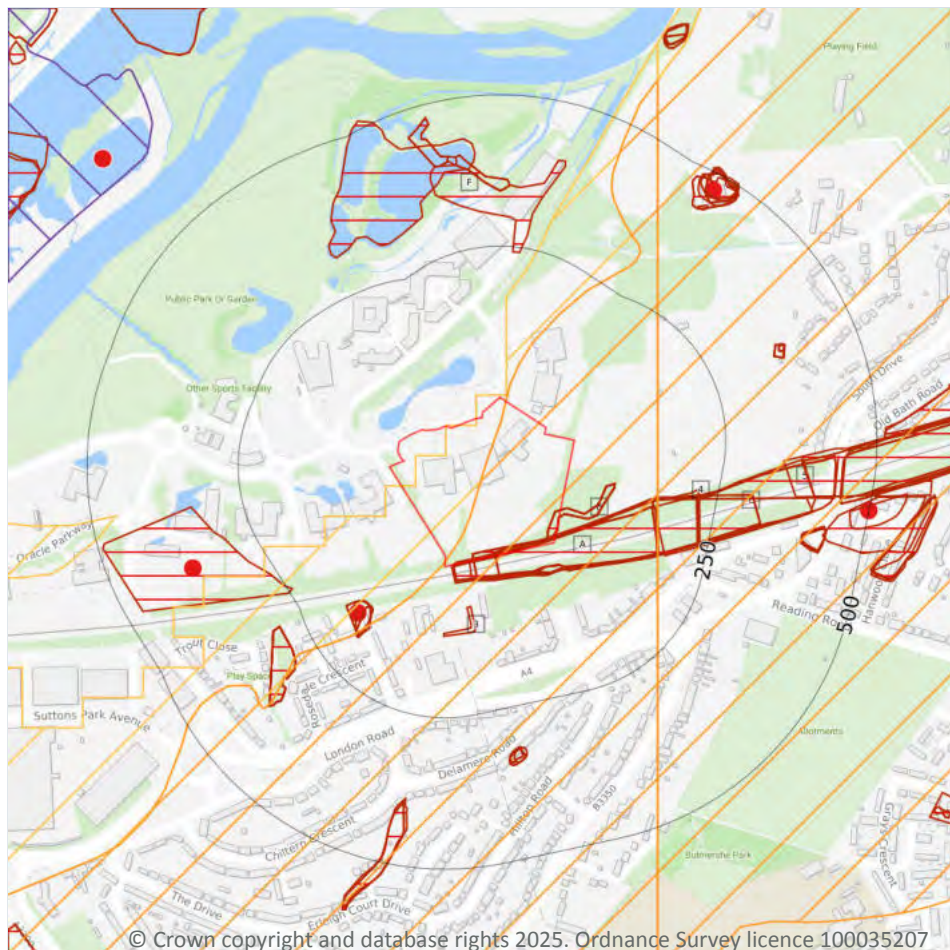
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

Location	Hazard rating	Details
On site	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.
On site	Low	Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.
On site	Moderate	Soluble rocks are present within the ground. Many dissolution features may be present. Potential for difficult ground conditions are at a level where they should be considered. Potential for subsidence is at a level where it may need to be considered.
On site	High	Soluble rocks are present within the ground. Numerous dissolution features may be present. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered.

This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m

3

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on [page 119](#) >

ID	Location	Details	Description
D	164m SW	Name: New Town Gravel Pit Address: New Town, READING, Berkshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
G	365m SW	Name: New Town Brick Works Address: New Town, READING, Berkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
P	473m NE	Name: Holme Park Farm Gravel Pit Address: Sonning, READING, Berkshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	31
----------------------------	-----------

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on [page 119](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Cuttings	1989	1:10000
A	On site	Cuttings	1979	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Cuttings	1962	1:10560
A	On site	Cuttings	1973	1:10000
A	On site	Cuttings	1938	1:10560
A	On site	Cuttings	1913	1:10560
A	On site	Cuttings	1898	1:10560
A	On site	Cuttings	1994	1:10000
A	On site	Cuttings	1938	1:10560
A	On site	Cuttings	1933	1:10560
B	On site	Unspecified Ground Workings	1989	1:10000
B	On site	Unspecified Ground Workings	1979	1:10000
B	On site	Unspecified Ground Workings	1973	1:10000
B	On site	Unspecified Ground Workings	1994	1:10000
3	73m S	Unspecified Ground Workings	1933	1:10560
D	139m SW	Unspecified Ground Workings	1938	1:10560
D	139m SW	Unspecified Ground Workings	1938	1:10560
D	140m SW	Old Gravel Pit	1898	1:10560
D	142m SW	Unspecified Pit	1938	1:10560
D	142m SW	Unspecified Pit	1913	1:10560
E	154m E	Cuttings	1960	1:10560
E	154m E	Cuttings	1977	1:10000
E	155m E	Cuttings	1986	1:10000
4	162m E	Unspecified Ground Workings	1938	1:10560
E	218m E	Cuttings	1932	1:10560
E	218m E	Cuttings	1938	1:10560
E	218m E	Cuttings	1910	1:10560
E	218m E	Cuttings	1898	1:10560
5	227m E	Cuttings	1900	1:10560
F	241m N	Refuse Heap	1979	1:10000



ID	Location	Land Use	Year of mapping	Mapping scale
G	243m SW	Disused Brick Works	1898	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0
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Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0
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This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0
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Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	8
-----------------------------	----------

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining and ground workings map on [page 119](#) >

ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
2	On site	Not available	Chalk	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.
C	138m E	Not available	Chalk	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.
7	460m W	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
8	585m NE	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	722m W	Not available	Chalk	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	821m NE	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	846m NE	Not available	Chalk	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.

This data is sourced from the British Geological Survey.



18.7 JPB mining areas

Records on site

1

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

Location	Details
On site	Whilst outside of an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) may have information such as mining plans and maps held within their archive that have occurred within 1km of this property. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk ↗.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

2

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

Location	Mineral type
270m NW	Stone
432m NE	Stone

This data is sourced from Groundsure.



18.10 Mining record office plans

Records within 500m

0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site

0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site

0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.



18.15 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0
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Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

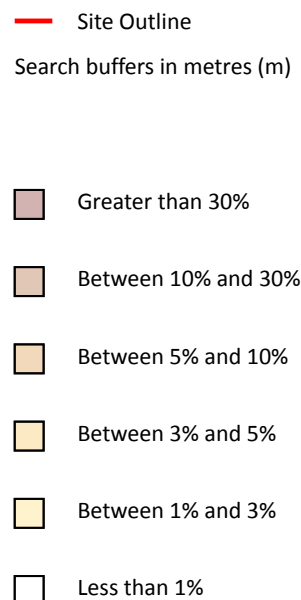
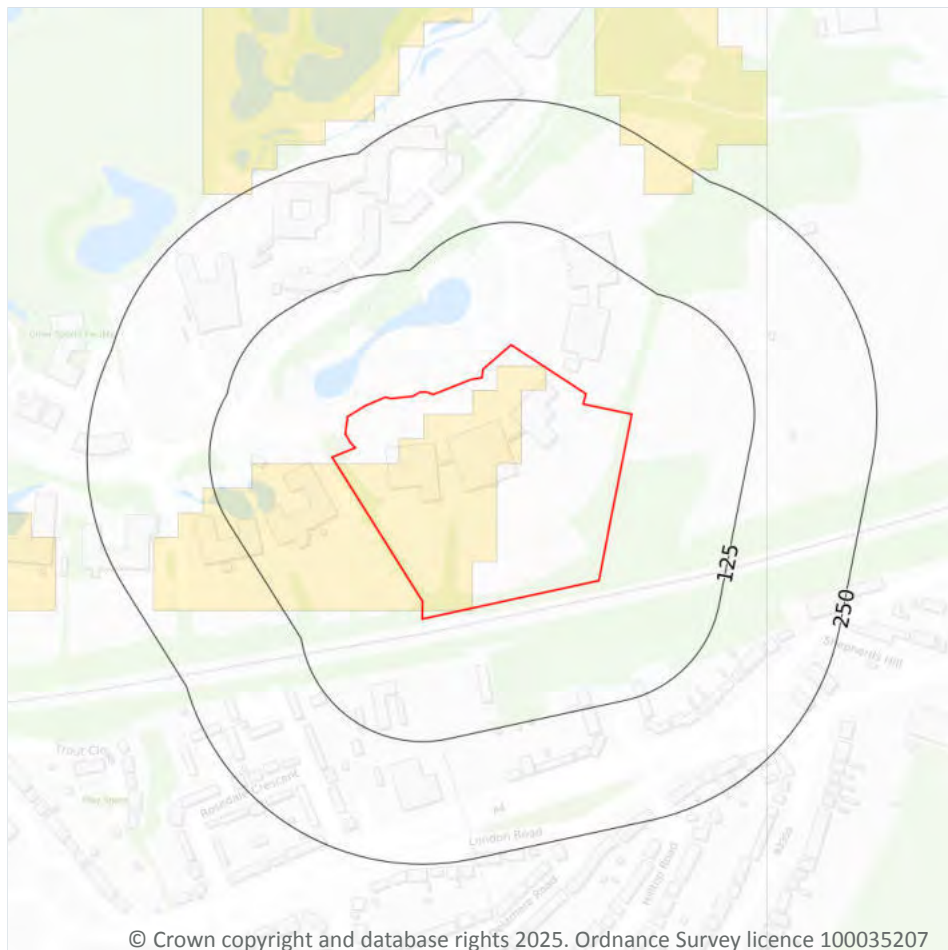
Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



20 Radon



20.1 Radon

Records on site

2

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on [page 129](#) >

Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	None



Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None

This data is sourced from the British Geological Survey and UK Health Security Agency.



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

10

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.



21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

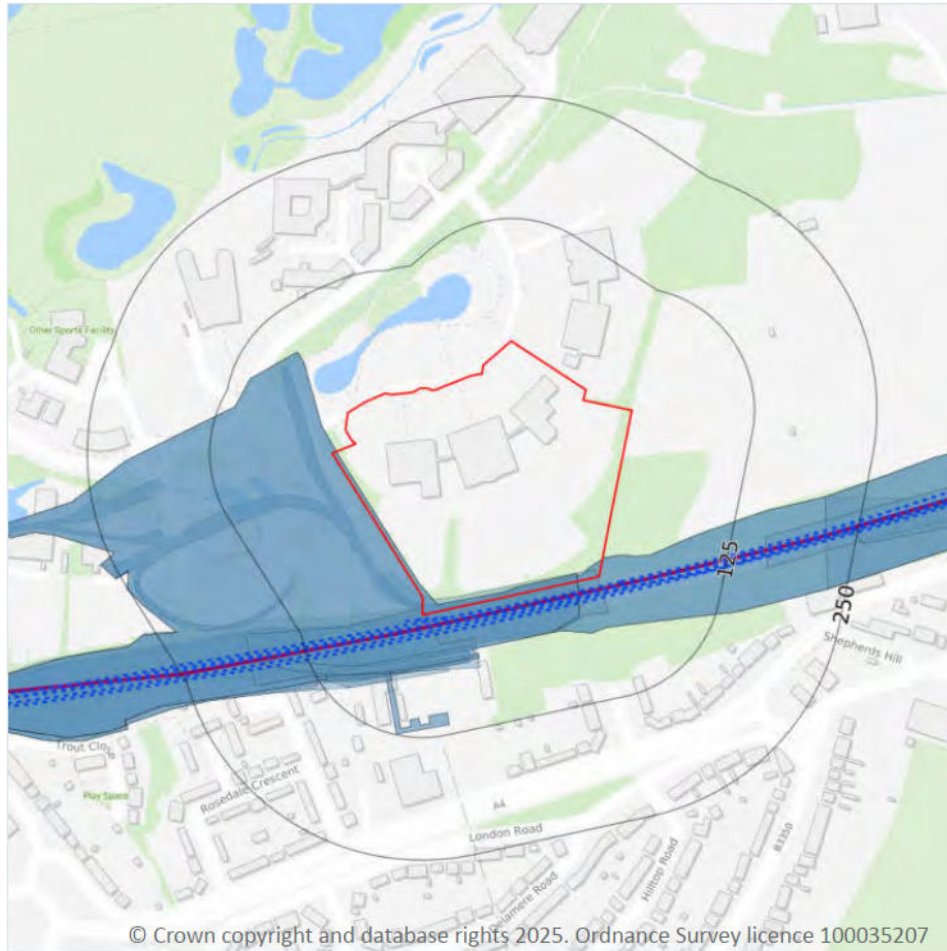
0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- ... Active railways
- ... Active tunnels
- ... Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

22.1 Underground railways (London)

Records within 250m

1

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

Features are displayed on the Railway infrastructure and projects map on [page 133](#) >

Location	Line Name	Line Section	Track Type	Depth (m bgl)	Operational hours
13m S	Elizabeth Line	Elizabeth Line	Surface Track	0	Mon-Thu: Early 0500 Late 0111, Fri: Early 0523 then a 24h service until Sun, Sun: Late 0001

This data is sourced from publicly available information by Groundsure.



22.2 Underground railways (Non-London)

Records within 250m**0**

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m**43**

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on [page 133](#) >

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1989	10000
On site	Railway Sidings	1979	10000
On site	Railway Sidings	1962	10560
On site	Railway Sidings	1973	10000
On site	Railway Sidings	1938	10560
On site	Railway	1933	-
On site	Railway	1899	-
On site	Railway Sidings	1960	2500
On site	Railway Sidings	1997	1250
On site	Railway Sidings	1973	1250
On site	Railway Sidings	1964	1250
On site	Railway Sidings	1956	1250



Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1958	2500
On site	Railway Sidings	1970	2500
On site	Railway	1872	-
4m S	Railway	1910	-
6m S	Railway	1932	-
12m S	Railway Sidings	1899	2500
12m S	Railway Sidings	1912	2500
12m S	Railway Sidings	1932	2500
17m W	Railway Sidings	1965	1250
17m W	Railway Sidings	1966	2500
25m W	Railway Sidings	1912	2500
25m W	Railway Sidings	1932	2500
40m S	Railway Sidings	1933	10560
48m S	Railway Sidings	1932	2500
72m SW	Railway Sidings	1965	1250
101m SW	Railway Sidings	1958	2500
101m SW	Railway Sidings	1960	2500
111m W	Railway	1898	-
114m W	Railway Sidings	1899	2500
136m SW	Railway Sidings	1970	2500
143m SW	Railway Sidings	1996	1250
143m SW	Railway Sidings	1964	1250
143m SW	Railway Sidings	1973	1250
143m SW	Railway Sidings	1956	1250
151m SW	Railway Sidings	1988	1250
151m SW	Railway Sidings	1991	1250
153m SW	Railway	1872	-
155m W	Railway Sidings	1956	1250



Location	Land Use	Year of mapping	Mapping scale
159m E	Railway Sidings	1960	10560
211m E	Railway	1912	-
242m E	Railway Sidings	1932	10560

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m **0**

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m **0**

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m **9**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

Features are displayed on the Railway infrastructure and projects map on [page 133](#) >

Location	Name	Type
4m S		rail
5m S		rail
7m S	Great Western Main Line	rail
11m S	Great Western Main Line	rail
15m S	Not given	Multi Track
15m S	Not given	Multi Track



Location	Name	Type
18m S	Great Western Main Line	rail
22m S	Great Western Main Line	rail
23m E	Great Western Main Line	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <https://www.groundsure.com/sources-reference> ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.



APPENDIX E – UXO Risk Assessment

STAGE 1 PRELIMINARY UXO RISK ASSESSMENT

Report Ref: PRA-26-3011 | Author: DS | Reviewer: WS

Client: Onyx Geo Consulting Ltd
Project: Thames Valley Park Drive, Wokingham
Date: 12/03/2026



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INTRODUCTION

The Stage 1 Preliminary Risk Assessment aims to identify potential sources of unexploded ordnance (UXO) that may impact the site. The assessment determines if further investigation through a Stage 2 Detailed UXO Risk Assessment is necessary.

This desktop study follows the Construction Industry Research and Information Association (CIRIA) C681 Guidelines: ‘Unexploded Ordnance, a Guide for the Construction Industry’ (published in 2009). It incorporates multiple historical datasets, including available wartime records, Ordnance Survey (OS) mapping, aerial imagery and the Brimstone UXO Sources Database.

THE SITE

National Grid Ref: SU 74726 74102 **What3Words:** either.edgy.bronze

Location: Situated in Reading, within the county of Berkshire, approximately 3km north-east of Reading railway station (or other reference point).

Site Composition: Comprises three commercial structures within Thames Valley Park, as well as associated hardstanding carparks and landscaping / mature vegetation.

Surroundings: Bound to the north by Thames Valley Park Drive, to the east by an area of mature vegetation, to the south by a railway line, and to the west by a hardstanding carpark.



THE PROPOSED WORKS

Site Investigation (SI) Works	SI works will comprise three cable boreholes to 20m below ground level (bgl) and up to 18 window sampler boreholes to 4m bgl.
Development Works	Brimstone was not made aware of any upcoming development works occurring on Site.

SITE HISTORY

Pre-WWII	The Site comprises entirely undeveloped ground, likely utilised for agriculture.
WWII-era	No notable developments appear to have occurred.
Post-WWII	According to modern satellite imagery, the existing structures and associated carparks were constructed / laid by 2003. General maintenance and laying of hardstanding will have disturbed WWII-era soil to very shallow (<1m bgl) depths across the Site. Construction of the existing structures will have disturbed WWII-era soil to shallow (1-2m bgl) depths in their footprints. No deep (>2m bgl) intrusions are anticipated to have occurred across the Site.

ENEMY ACTION DURING WWI	
WWI German Bombing	No air raids affected Reading during WWI.
ENEMY ACTION DURING WWII	
British District Bombing Density Statistics	The Site is situated in the WWII-era Rural District of Wokingham, which sustained 5.8 bombs / 1,000 acres, a low bombing density. The Site was also situated within an approximate 500m of the administrative border for the Rural District of Henley, which sustained 3.1 bombs / 1,000 acres, a very low bombing density.
Evidence of Bomb Strikes	An in-house geodata set records one bombing incident at Sonning, approximately 855m north-east, while five bombing incidents were recorded in Woodley, approximately 1.7km south-east; however, it should be noted that this source does not provide the precise locations of recorded strikes. Anecdotal evidence of bombing over Woodley and the wider area does not record any bombing incidents within an approximate 500m radius of the Site; the closest identified strike, comprising one high-explosive (HE) bomb strike, was recorded approximately 660m south-west. ¹
Evidence of Bomb Damage	No immediately obvious evidence of bomb damage, such as cratering, visible on Site or in the vicinity within WWII-era or post-WWII aerial photography.
Local Bombing Decoy Sites	None within a significant distance. The closest recorded decoy was approximately 5.4km south-east.
Local German Bombing Targets	The closest identifiable primary Luftwaffe target was Woodley Airfield, approximately 2.5km south-east. Railway infrastructure, immediately south of the Site, or an electricity works approximately 75m west, may have been identified as targets of opportunity.
UXO Finds	An incident occurred in October 1999, in which an unexploded 1,000kg HE bomb was identified near the Paddington railway line in Woodley, approximately 1.5km east of the Site. ² An EOD team attended the scene and worked to make the UXB safe. However, due to its distance removed, this incident is not considered significant regarding UXO contamination on Site.
BRITISH / ALLIED MILITARY ACTIVITY	
Potential Source of UXO	Details
WWII Home Guard (HG) Activity	Soldiers of the 7 th Berkshire (Reading) HG Battalion will have been active locally during WWII. The possibility that the Site was accessed by armed HG troops on patrol cannot be discounted at this stage due its open, undeveloped nature during WWII.
Historic or Current Military Activity	No evidence of activity occurring on Site found at this stage within an in-house geo data set or a local Historic Environment Record (HER).

¹ <https://www.woodley.gov.uk/our-community/local-walks/woodley-history-walks/world-war-ii/>

² <http://news.bbc.co.uk/1/hi/uk/480871.stm>

WWII Light and / or Heavy Anti-Aircraft (LAA and HAA) Batteries	Six permanent HAA batteries were active within range of the Site during WWII. LAA guns may have defended vulnerable points in the wider study area. Luftwaffe activity in the region was relatively infrequent and as a result these guns would not have fired a considerable amount of ordnance. It is unlikely, albeit not impossible, that an unexploded AA shell struck the Site.
LIKELIHOOD OF UXB DETECTION	
Access Levels	Access levels are anticipated to have been infrequent during WWII, owing to the Site's undeveloped nature; although, this would have depended on the landowner(s) and seasonal agricultural activity.
Ground Cover	Wartime ground cover present is considered uncondusive to the visual detection of a UXB strike, given its undeveloped nature.
RISK MITIGATING FACTORS	
Likelihood of UXO Remaining	The risk associated with (any) very shallow buried UXO will have likely been largely mitigated across the Site. The risk associated with (any) shallow buried UXO will have likely been partially mitigated in the footprints of the post-WWII structures. The risk associated with (any) deep buried UXO almost certainly remains unmitigated.
CONCLUSIONS	
German UXO: - No bombing incidents identified on Site. An in-house geodata set records one bombing incident within Sonning, as well as five within Woodley. Anecdotal evidence identifies the closest incident, a HE bomb strike, approximately 660m south-west of the Site. - No immediately obvious evidence of bomb damage, such as cratering, identified on Site or in the vicinity. Note, the ground over present may be obscuring such evidence. - Wartime ground cover was likely uncondusive to the visual detection of German UXBs, and the Site is anticipated to have experienced an infrequent level of access, dependent on the landowner(s) and seasonal usage. - Despite this, given the lack of evidence of bombing on Site, the risk of encountering German UXBs is not considered elevated above the 'background level' for the country, and further research is not deemed necessary.	
British / Allied UXO: - No evidence of significant military activity specifically on Site has been found and none is likely to have occurred. - It is possible that an unexploded British AA shell struck the Site during WWII. However, as above, the likelihood of such UXO penetrating the ground on Site and remaining in situ is not considered likely.	
RECOMMENDATIONS	
SI Works	A Stage 2 Detailed Risk Assessment is not considered necessary prior to SI works commencing. However, the possibility of UXO remaining on Site cannot be completely ruled out at desktop stage. Therefore, a UXO Safety Briefing to all personnel conducting ground works would be considered prudent.
Development Works	



APPENDIX F – PRELIMINARY RISK ASSESSMENT AND GEOTECHNICAL RISK REGISTER

Contaminant	Receptor	Pathway ¹	Likelihood of Exposure	Severity of Exposure	Risk Classification	Notes
Potential contaminants of concern (non-volatile) in made ground or near surface soils during and following the development of the site	Future occupants and maintenance workers	Dermal contact, ingestion of soil and dust particles, indoor and outdoor inhalation of soil derived dust	Low likelihood	Mild	Low risk	Future site workers and future maintenance workers may be exposed to potential contaminants of concern if they remain present in uncovered near surface soils and also if excavation into the ground is required (e.g. future landscaping or utility maintenance). The site was not heavily developed prior to current land use, historical mapping indicates it remained as open fields until late 1990s. Significant ground contamination is not anticipated. There is the potential for some made ground in areas of groundworking or if levels were raised during the development of the business park. Localised areas of made ground could be a contaminant source. If potential contaminants of concern are identified that pose an unacceptable risk to future site workers then remediation will be required. Following remediation and verification the risk will be mitigated. Risks to maintenance workers can be mitigated by producing suitable risk assessments and methods statements for intrusive ground work. These should follow relevant health and safety guidance and legislation such as CDM:2012 and Health and Safety at Work Act 1974 to mitigate potential risks to the work force. The client should supply all relevant information to the principal contractor / contractor(s) to inform their assessments.

Contaminant	Receptor	Pathway ¹	Likelihood of Exposure	Severity of Exposure	Risk Classification	Notes
	Construction workers	Dermal contact, ingestion of soil and dust particles, indoor and outdoor inhalation of soil derived dust	Low likelihood	Mild	Low risk	Construction workers during groundworks excavations may be exposed to potential contaminants of concern if present in made ground soils. Risks to maintenance workers can be mitigated by producing suitable risk assessments and methods statements for intrusive ground work. These should follow relevant health and safety guidance and legislation such as CDM:2012 and Health and Safety at Work Act 1974 to mitigate potential risks to the work force. The client should supply all relevant information to the principal contractor / contractor(s) to inform their assessments.
	Neighbouring residents, offsite commercial land users and the public	Fugitive dust migration	Unlikely	Minor	Very low risk	During the the groundworks phase there is the potential for dust generation and migration from site soils. If excavated soils are stockpiled and contain potential contaminants of concern there is the potential for dust generation and migration from stockpiles. Dust suppression methods during dry conditions would assist in minimising this potential pathway linkage becoming active.
	Groundwater (Secondary A and Principal aquifers)	Rainwater percolation and mobilisation of potential contaminants of concern in soils. Vertical migration of contaminants of concern impacting Secondary A and Principal aquifers	Low likelihood	Mild	Low risk	Significant ground contamination is not expected from historical land uses on site.

Contaminant	Receptor	Pathway ¹	Likelihood of Exposure	Severity of Exposure	Risk Classification	Notes
	Surface water (Offsite lake, inland rivers and River Thames)	Surface water run-off or if there is a hydraulic connection between the surface water and groundwater	Unlikely	Mild	Very low risk	Following the development no new pathways are anticipated to be created and surfacing is expected to have large areas hardstand covered. If there are potential contaminants of concern in near surface soils these are unlikely to be mobilised through surface water interaction and surface water run off. Groundwater flow in superficial and bedrock aquifers is anticipated to be away from the lakes and river Thames
Potential contaminants of concern in groundwater	Surface water (Offsite lake, inland rivers and River Thames)	Lateral migration of contaminants in groundwater	Unlikely	Mild	Very low risk	The development is not considered to create new pathways that would increase connectivity between onsite groundwater and the surface water receptors. Onsite groundwater is not anticipated to be significantly contaminated from onsite land uses
	Onsite Secondary A and Principal Aquifers	Lateral migration of contaminants in groundwater from offsite groundwater onto site	Unlikely	Medium	Low risk	Historical electrical works to the immediate west of the site could have caused contamination of the chalk aquifer. Groundwater is anticipated to flow in an easterly direction and this may have impacted the site. However, the activities halted in the 1980s, as such continuing levels of contaminants of concern if present are not anticipated to be significantly above ambient levels.
	Offsite Secondary A and Principal Aquifers	Lateral migration of contaminants in groundwater from onsite groundwater	Low likelihood	Mild	Low risk	Onsite groundwater is not anticipated to be significantly contaminated from onsite land uses
	Construction workers	Dermal contact and ingestion	Low likelihood	Mild	Low risk	Shallow groundwater is not anticipated on site, as such the likelihood of direct contact is considered to be low.
Asbestos fibres in soils following and during the development of the site	Future land users	Inhalation of asbestos fibres	Low likelihood	Severe	Moderate risk	Potential for asbestos containing materials to be present in made ground soils or recycled construction and demolition materials if used as sub-base to car park areas.

Contaminant	Receptor	Pathway ¹	Likelihood of Exposure	Severity of Exposure	Risk Classification	Notes
	Construction and maintenance workers	Inhalation of asbestos fibres	Low likelihood	Severe	Moderate risk	Potential for asbestos containing materials to be present in made ground soils or recycled construction and demolition materials if used as sub-base to car park areas.
Volatile contaminants in soils and groundwater	Future site users and maintenance workers	Inhalation of volatile vapours (onsite sources)	Unlikely	Mild	Very low risk	The historical land uses do not suggest onsite use of solvents or volatile hydrocarbons that would pose a significant risk to future land users. There could be very localised fuel or oil spills in the car parking area.
		Inhalation of volatile vapours (from off site sources)	Unlikely	Medium	Low risk	A number of historical tanks are mapped on the western site boundary. If these leaked and the spill was not cleaned up hydrocarbons could have migrated onto site. However the tanks were located down gradient of the site. On this basis, it is considered unlikely that a vapour plume would significantly impact the site
	Construction workers	Inhalation of vapours migrating from on-site contamination (outdoors)	Low likelihood	Mild	Low risk	As above
		Inhalation of vapours migrating from off-site contamination (outdoors)	Unlikely	Mild	Very low risk	As above
Soil gases generated from fill materials on site	Future site users Structures on or adjacent to the site	Vertical and lateral migration through unsaturated pore space. Ingress into buildings via service penetrations, floor construction and cracks, wall cavities, etc. resulting in accumulation in enclosed spaces within buildings. Migration via preferential pathways such as below ground service trenches.	Low likelihood	Mild	Low risk	Large areas of deep made ground or fill material with a high gas generating potential on site are not anticipated
	Construction workers	Vertical and lateral migration through unsaturated pore space.	Low likelihood	Mild	Low risk	Large areas of deep made ground or fill material with a high gas generating potential on site are not anticipated

Contaminant	Receptor	Pathway ¹	Likelihood of Exposure	Severity of Exposure	Risk Classification	Notes
Offsite landfills	Future site users, maintenance and construction workers Structures on or adjacent to the site	Vertical and lateral migration through unsaturated pore space. Ingress into buildings via service penetrations, floor construction and cracks, wall cavities, etc. resulting in accumulation in enclosed spaces within buildings. Migration via preferential pathways such as below ground service trenches.	Unlikely	Severe	Moderate/low risk	The offsite landfills are down gradient of the site. They are mapped at 110 m to the north at the closest extents. The site is separated from the landfills by low permeable Langley Silt Member, a lake, inline water courses and a large area of public open space.

THIS TABLE MUST NOT BE READ IN ISOLATION FROM THE MAIN REPORT

The classification is based upon the consideration of both the magnitude of consequence and the likelihood of exposure as follows:

Likelihood		Consequence			
		Severe	Medium	Mild	Minor
	High likelihood	Very high risk	High risk	Moderate risk	Low risk
	Likely	High risk	Moderate risk	Moderate/low risk	Low risk
	Low likelihood	Moderate risk	Moderate/low risk	Low risk	Very Low risk
	Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

Derived from Annex 4 of NHBC, Environment Agency & CIEH 'Guidance for the Safe Development of Housing on Land Affected by Contamination' R&D66. 2008.

Geotechnical risk is the risk to the construction work created by the ground conditions. This Geotechnical Risk Register (GRR) has been compiled to provide an assessment of the likely risks that may impact on the proposed development of the land at, Thames Valley Park Drive, Wokingham and incorporation into the Phase 1 Desk Study Report.

The risk in the register does not indicate that the risk is present, rather the likelihood of mitigation measures being required due to that risk, based on the available data. Equally, a risk classified as low indicates that mitigation measures are unlikely to be required for the hazard identified based on the available data. The potential risks should be continually reassessed throughout the design and construction process as new information comes to light or due to site specific or weather specific conditions.

The risk register is a live document and should be refined throughout the design and construction process such that it will enable the management of geotechnical risk. The risks reported in this register comprise of both H&S related risks, and project risks. The severity scale accounts for both types of risks.

The GRR has been developed following that described in Clayton C.R.I (2001) Managing Geotechnical Risk ICE and CD622 "Managing Geotechnical Risk" (2025). The risk is determined by combining the likelihood of a hazard occurring and the severity of the hazard on the project. The severity may be measured in one or more aspect e.g. increased cost, delays in the program, health and safety etc. The scale of the likelihood, severity and risk are determined as follows.

Likelihood		Severity				
		1	2	3	4	5
		Minor	Moderate	Serious	Major	Catastrophic
1	Extremely unlikely	1	2	3	4	5
2	Unlikely	2	4	6	8	10
3	Likely	3	6	9	12	15
4	Extremely likely	4	8	12	16	20
5	Almost certain	5	10	15	20	25

Risk Classification	
Trivial (1-4)	Ensure assumed control measures are maintained and reviewed as necessary
Tolerable (5-9)	Consider more cost effective solutions or improvements
Substantial (10-15)	Work must not start until the risk has been reduced.
Intolerable (16-25)	Activity not permitted. Hazard to be avoided or the risk reduced.

Potential severity of harm occurring		
1	Minor	Minor damage or loss (no human injury)
2	Moderate	Moderate damage or loss (slight injury or illness)
3	Serious	Substantial damage or loss (serious injury or illness)
4	Major	Major damage or loss (fatal injury)
5	Catastrophic	Catastrophic loss or damage (multiple fatalities)

Risk ID	Hazard	Consequence	Likelihood	Severity	Risk	Mitigation
1	Soils susceptible to shrinkage and swelling	The Langley Silt Member often exhibits high plasticity. The Lambeth Group can exhibit low to medium plasticity. Given the presence of trees and hedges on site and the potential for variable plasticities it is likely to impact foundation design.	3	3	9	Ground investigation to investigate the shrink swell potential of soils. If found to be high foundations may require deepening or piling to account for the potential volume change of the shallow soils. Consideration for void formers or compressible layers.
2	Limited information on aggressive ground conditions for concrete design	Potential for chemical attack on below ground concrete. This can cause expansion and cracking and deterioration of foundations or load bearing structures. However, the mapped soils are not	2	3	6	Ground investigation to include testing for ground aggressivity. Based on test results design the concrete in accordance with BRE Special Digest 1
3	Potential for bottom ash or PFA to have been deposited on site from the historical coal fired power station present to the west of the site from 1942-1982	Potential for unacceptable settlement of foundations as well as difficulty during construction. Not considered likely as there are a number of off site landfills that were registered to the power station. It is anticipated that ashes and waste materials would have been deposited in these locations	1	3	3	Ground investigation to establish ground conditions including chemical composition and depth of made ground. If present then foundations should extend through any made ground into suitable load bearing strata below. Excavations in made ground are likely to be unstable and lateral support
4	Potential for deep made ground on site	Potential for unacceptable settlement of foundations as well as difficulty during construction. Deep made ground is not anticipated on site other than around basements. Shallow made ground may be present within the footprint of the existing structures and is mapped in the southeast of the site by the BGS.	2	3	6	Ground investigation to establish ground conditions including chemical composition and depth of made ground. If present then foundations should extend through any made ground into suitable load bearing strata below. Excavations in made ground are likely to be unstable and lateral support may be required.
5	Variable or compressible soils	Potential for compressible and variable soils in the Langley Silt Member and the Lambeth Group Formation. Although the Groundsure report reports that compressible strata are not thought to occur	2	2	4	Ground investigation to establish ground conditions. Foundations should be designed to extend through any compressible strata to intact strata at depth.
6	Frost susceptible strata	Potential for frost susceptible soils in the Langley Silt Member and the Lambeth Group Formation.	3	2	6	Foundations in frost susceptible soils should extend to a suitable depth to avoid the influence. Allowance should be made for the use of frost-resistant subbase within the construction of any hardstanding for example slabs or roads.
7	Ground dissolution hazards / natural cavities	Parts of the site are highlighted in the Groundsure report as being located in an area at moderate and high risk of dissolution. There is the potential for difficult ground conditions or subsidence	4	4	16	Ground investigation to establish ground condition
8	Limited information on groundwater levels for the site.	Shallow groundwater may be present in the superficial aquifers or perched in the made ground. Seepages from granular horizons including made ground may be expected.	2	2	4	Ground investigation to establish ground conditions. Depending on levels allowance for dewatering of excavations may be required.

Risk ID	Hazard	Consequence	Likelihood	Severity	Risk	Mitigation
9	Railway cutting instability	A railway line in a cutting is present to the south of the site. New loads from the development may cause slope failure, surface deformation at crest, structural damage to services and railway line.	2	2	4	Whilst some evidence of historical slope instability has been noted it is not considered a significant risk at this site (tree growth at angles). A ground investigation to confirm the site ground model and strata properties.
10	Existing slopes on site	The site slopes downwards from 52/50 m AOD to ~29 m AOD in a southeast to northwest direction. Earthworks or retaining walls to accommodate the layout, which impact the cost of the development	3	3	9	A ground investigation is required to confirm the ground model for the site and strata properties
11	UXO risk	The site is located in an area mapped as low risk of UXO.	1	4	4	A preliminary UXO risk assessment recommended an awareness briefing as part of the site investigation works
12	Limited information on in ground obstructions (relict concrete / foundations) that may be encountered during excavation work and foundation construction	Depending on the scope of the demolition works, there is the potential for in ground obstructions that may affect the future development of the site	3	2	6	Consider in ground obstructions at an early stage especially when designing scope of works for demolition / earthworks.
13	Disturbance or damage of recorded and unrecorded utilities.	Current utilities plans indicate that high voltage electricity and high pressure gas mains are present on site. Potential for major hazard and disruption to utility provider	3	4	12	A PAS128 survey was undertaken in November 2025. With respect to the SI design all trial holes are located minimum 10 m away from the high risk services. The proposed development design should ensure prevention of impact on utilities.

APPENDIX G – REGULATORY FRAMEWORK FOR CONTAMINATED LAND ASSESSMENTS

Our assessment has been carried out in accordance with the statutory contaminated land regime in Part 2A of the Environmental Protection Act 1990 and the associated Contaminated Land Statutory Guidance issued under that regime. Part 2A defines “contaminated land” and provides the legal basis for identifying land where contamination poses unacceptable risks to people or the environment.

In addition to the statutory regime, we have followed the Environment Agency’s Land Contamination Risk Management (LCRM) guidance as the current authoritative source on how to assess and manage risks from historic land contamination. It outlines a clear, risk-based approach tailored to decision-makers, regulators, developers, and consultants.

Our assessment method is based on developing a Conceptual Site Model that identifies potential pollutant linkages by considering:

- Sources – potential contaminant presence and origin;
- Pathways – routes by which contaminants might reach receptors; and
- Receptors – people, property, controlled waters, and the wider environment that could be harmed.

Only where a complete pollutant linkage exists and presents an unacceptable risk would land be considered contaminated under Part 2A.

In line with LCRM, risk assessment work is carried out in stages, comprising:

- Preliminary Risk Assessment, including desk-based review and initial conceptual model development;
- Generic Quantitative Risk Assessment (GQRA), comparing measured concentrations with appropriate assessment criteria; and
- Detailed Quantitative Risk Assessment (DQRA) where site-specific criteria are required.

Where applicable, decisions on land contamination also take into account related regulatory requirements, including:

The planning regime (e.g., National Planning Policy Framework), which requires that land be suitable for its proposed use and that risks from contamination are properly assessed and managed prior to development; and

Other statutory provisions such as the Environmental Damage (Prevention and Remediation) Regulations 2009, where environmental damage must be avoided or remediated.

Together, these frameworks ensure that land is assessed and managed in a way that protects human health, the environment, and property, and that risk identification and mitigation are proportionate and evidence based.

APPENDIX A – LIMITATIONS

This report, including any related study, inspection, testing, sampling, or interpretation (collectively referred to as "deliverables"), was prepared by Onyx Geo Consulting Limited (Onyx Geo), for the client specified in the first paragraph, following the terms outlined in Onyx Geo's fee proposal and standard terms (the "Appointment"). Onyx Geo delivered the Services with the level of expertise typical of geo-environmental consultants at the time. The report does not imply any specific fitness for purpose. The Services were completed within the limitations of scope, timing, and resources as agreed between Onyx Geo and the Client.

Except as specified above, Onyx Geo makes no further representations or warranties, either express or implied, concerning the Services. Liability for any actions related to this report expires six years from the report date or as legally specified, unless altered within the Appointment terms.

Onyx Geo conducted the Services exclusively for the Client's intended purpose. If this report or its contents are used by any third party without explicit written consent from Onyx Geo, any risk or liability lies solely with that party. It is recommended that third parties seek their own independent geo-environmental consultation.

The Client may not transfer or assign the benefits of this report to any third party without written permission from Onyx Geo. Should an assignment be agreed upon, any third-party rights provided will require a fee and will not extend beyond the terms initially agreed with the Client.

Onyx Geo understands this report is intended for the purpose outlined in its introduction. Any alterations in the site's intended use may invalidate the report. Onyx Geo is not liable for any use of this report outside its original purpose without a formal review.

Over time, changes in site conditions, regulations, technology, or economic circumstances may affect the accuracy or relevance of this report. For future reliance, written confirmation from Onyx Geo is advised.

The conclusions in this report are based on the specific Services provided as outlined in the Appointment. Onyx Geo holds no responsibility for undiscovered conditions that fall outside the scope of services originally agreed upon.

The Services were based on visible site conditions, historical site data, and publicly available information, relying on third-party data where applicable. Onyx Geo is not liable for inaccuracies in this information or for failing to independently verify third-party data.

Drawings included in this report are illustrative and may not be suitable for precise measurements. Marked features are approximate and for reference only.

Any subsequent review or update of this report may require additional fees at the agreed rates.

The conclusions from ground investigations rely on samples taken from specific site locations and represent only a limited area around these points.

Site conditions, particularly ground and groundwater variables, may change seasonally, and additional variation beyond that reported here cannot be ruled out.



The presence of asbestos, if any, is not fully assessed within this report. A comprehensive asbestos survey is recommended for any thorough evaluation.

Preliminary geotechnical recommendations are provided and should be validated in a final Geotechnical Design Report once structural design plans are confirmed.