
Phase I Desk Study & Site Reconnaissance Report

at: Land north of Camer
Road, Hook Green,
Meopham

for: Icení Projects Ltd

Report Reference: 3741353 R00(01)

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LEAP ENVIRONMENTAL GENERAL NOTES

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

CONTENTS

EXECUTIVE SUMMARY.....	1
1 INTRODUCTION.....	3
1.1 Authority	3
1.2 Objective	3
1.3 Previous studies.....	4
1.4 Scope of works	4
1.4.1 Phase 1 scope	4
1.5 Sustainability considerations	5
1.5.1 Carbon reduction	5
1.5.2 Potential for ground source heating and cooling	5
1.6 Limitations	6
2 PHASE I – DESK STUDY	7
2.1 Environmental setting	7
2.1.1 Site location and description	7
2.1.2 Geology.....	8
2.1.3 Hydrogeology.....	10
2.1.4 Hydrology	10
2.1.5 Flooding	10
2.1.6 Designated environmentally sensitive sites	11
2.1.7 Ground workings.....	11
2.1.8 Mining, extraction and natural cavities	12
2.2 Site usage	12
2.2.1 Current land use	12
2.2.2 Evidence of onsite contamination	12
2.2.3 Site history	13
2.2.4 Unexploded ordnance (UXO)	18
2.2.5 Waste planning and landfill records.....	18
2.2.6 Radon	19
2.3 Previous Investigations	19
2.3.1 Former Meopham Coal Yard	19
3 PRELIMINARY RISK ASSESSMENT.....	21
3.1 Preliminary geoenvironmental conceptual site model	21
3.1.1 Approach.....	21
3.1.2 Potential sources of contamination	21
3.1.3 Potential receptors	23
3.1.4 Potential contaminant linkages	24
3.1.5 Summary of geo-environmental preliminary risk assessment.....	25
3.2 Geotechnical risk assessment	25
3.2.1 Preliminary ground model.....	25
3.2.2 Geotechnical risk register	27
3.2.3 Summary of preliminary geotechnical risk register	27
3.3 Sustainability considerations	27
3.4 Data gaps and uncertainties	27

3.5 Recommendations for intrusive ground investigation.....	28
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Appendices

Appendix A – Service constraints

Appendix B – Figures and drawings

Appendix C – Photographic record

Appendix D – Groundsure report

Appendix E – Preliminary risk assessment and geotechnical risk register tables

EXECUTIVE SUMMARY

The 43.18 ha site is located to the north of Camer Road and Norwood Lane, Meopham, Kent with the nearest postcode being DA13 0YF, comprising of a predominantly flat, roughly triangular parcel of agricultural land cultivated with wheat/ barley, and two areas on ancient woodland. It is proposed to develop the site into residential dwellings, a country park extension, a school and possible employment land.

The site is mapped as being underlain by the Thanet Sand Formation in the central eastern area of the site (Secondary A aquifer), and the Seaford Chalk Formation in the west and far east (Principal aquifer). Superficial Head deposits are locally mapped in the northwest and east of the site (Secondary Undifferentiated aquifer). The site is situated within groundwater SPZ2 in the west of the site and SPZ3 in the centre, north and south of the site, and relate to the SPZ1 650 m northwest of the site in Meopham. Groundwater is anticipated to be at depth below ground level (>40mbgl).

According to the Environment Agency, the site is located within a Flood Zone 1, where there is a low probability of flooding from rivers and the sea.

The site is not effected by radon gas to a level where protection measures are required.

The site was first mapped in 1867 as agricultural fields with woodland, footpaths, and a structure to the west. By 1895, a courtyard-style structure appeared in the southeast, later removed by 1985 with only the courtyard wall remaining. Aside from electricity pylons added in 1931, the land has remained largely agricultural and unchanged.

Offsite land use changed from open fields, orchards, and railway activity in 1867 to more industrial uses by the late 19th and early 20th centuries. A refuse depot was established west of the site by 1895, while a varnish factory with a chimney was added beyond the northern boundary in 1931 and expanded by 1939. The refuse depot closed after the 1950s, and the varnish factory reportedly ceased production in 1988, and the cleared land is now occupied by residential areas and small businesses with the wider area defined by residential and agricultural use.

The risk of UXO has been assessed by reference to the unexploded WWII aerial delivered bomb (UXB) regional risk maps produced by Zetica, which indicate a moderate risk, however since the proposed development does not include any large excavations (the largest anticipated to be footings) the overall UXO risk is anticipated to be low/moderate.

The report has identified a number of potential sources of contamination associated with current and historic site uses. These include potential made/ reworked ground, bonfire sites, historic agricultural use, storage of sludge, the former varnish factory beyond the northern boundary, and the former refuse depot beyond the western boundary with an anecdotal landfill. Contaminants of concern from these sources include pesticides, PFAS, heavy metals, asbestos, polycyclic aromatic hydrocarbons (PAHs), petroleum hydrocarbons, inorganic compounds, acids/bases and organic solvents. Mapped reworked ground beyond the northeastern boundary and the anecdotal landfill at the former refuse depot have also been identified as potential offsite sources of ground gases

including volatile organic compounds (VOCs). The preliminary risk assessment has determined there to generally be a low or moderate/low risk to human health from the contaminants of concern associated with the potential sources. Asbestos has been determined to have a moderate risk due to its severity but the likelihood of exposure is considered to be low.

The report has identified geotechnical risks on site, including frost-susceptible soils within the chalk, posing a risk to foundations and infrastructure, and ground dissolution and natural cavities in the chalk which present a substantial risk of difficult ground conditions and localised subsidence. On the basis of the initial review and preliminary risk assessment, the site is given **a Geotechnical Classification of Geotechnical** Category 1 in accordance with EN1997-1 §2.1(14)-(21).

Intrusive investigations and laboratory testing are recommended to confirm the actual ground conditions of the site to identify possible solution features and inform foundation, road pavement and concrete design. Intrusive locations should be distributed to give general coverage across the site, while also targeting potential areas of contamination including the potential made ground in the southeast. It is also recommended that gas monitoring standpipes are installed to monitor for potential ground gases and vapours (VOCs) associated with the anecdotal landfill offsite, reworked ground north of the site and former varnish factory offsite.

1 INTRODUCTION

1.1 Authority

RSK Environment Ltd trading as Leap Environmental (hereafter referred to as **LEAP**) were engaged by Icen Projects Ltd, Da Vinci House, 44 Saffron Hill, London EC1N 8FH, company number: 05359427, herein referred to as the “Client” to carry out a Phase I Desk Study and Site Reconnaissance at the land referred to as Land North of Camer Road in Hook Green, Meopham, Gravesend DA13 0YE.

The works were undertaken by means of **LEAP's** fee proposal letter dated 13th March 2025 Ref: TH/25/LPQ12151, which forms the appointment between **LEAP** and the Client.

References in this report to ‘we’, ‘us’ or ‘our’ shall mean **LEAP** Environmental as a trading name of RSK Environment Limited (company no.SC115530) at registered address 65 Sussex Street Glasgow G41 1DX.

The report should be read and used in accordance with the limitations and constraints identified in the report text, and at **Appendix A** – Service Constraints.

The site is approximately 43.18Ha in size and is located at the National Grid Reference TQ 65022 67499, with the nearest postcode being DA13 0YE (Drawing No.11101, **Appendix B**).

1.2 Objective

LEAP understands that the site is currently owned by private landowners and it is proposed to redevelop the site with residential dwellings, a potential primary school, potential employment land, and an extension of Camer Country Park, as per the attached layout in **Appendix B** Drawing No. 11601.

The proposed development is currently being submitted for outline planning and has been assessed in accordance with BS EN 1997¹, as including **Geotechnical Category 1** structures.

The objectives of this report are to:

- provide information on the geotechnical and environmental quality of the ground present on the site with respect to the proposed development in
- assess the potential health and other environmental risks posed by the site to the proposed development and to other specifically identified receptors
- assess the potential for offsite contamination to adversely affect the proposed development.

¹ BS EN 1997-1(2004)+A1:2013 Eurocode 7:Geotechnical Design: General Rules

1.3 Previous studies

The site has not been the subject of previous investigations by others. The following site investigation report has been downloaded from Gravesham Borough Council planning portal outlining a stage 1 geotechnical assessment of the former coal yard situated 250 m west of the site. The reader is referred to this earlier report which should be read in conjunction with this report.

- Eldred Geotechnics Ltd stage 1 geoenvironmental assessment, REF G1207-RP-01-E1, dated 29 June 2012

1.4 Scope of works

This report describes a process whereby the site risks are assessed. The terms geotechnical and geoenvironmental are referred to throughout the report.

Geoenvironmental refers principally to the chemical nature of the ground and the degree of soil, water and/or land gas contamination and the impact that contamination may have on current or future development and also on the wider environment.

Geotechnical refers to all other aspects of the ground conditions and the impact they may have on the physical construction of existing or future development, principally foundations, slope stability, drainage, pavement and road design and groundwater control.

1.4.1 Phase 1 scope

The report presents the results of a desk study and site reconnaissance. It provides a review of a nearby previous site investigation, where LEAP has been able to locate that information from third party sources. The previous reports referred to are detailed above. The following publicly accessible sources of information² have also been reviewed:

- British Geological Survey (BGS) 1:50,000 Series Geological Map Sheet 18/07/2025
- BGS 'Geology of Britain' online viewer accessed on 14/07/2025
- BGS Borehole log ref: TQ66NW41 located 124m West of the site boundary
- Defra 'MAGIC' website accessed on 18/07/2025
- Groundsure.io website accessed on 14/07/2025
- Groundsure database report (Ref: GS-3DH-6RB-LH1-MTY)
- Unexploded WWII aerial delivered bomb (UXB) regional risk maps produced by Zetica
- Interrogation of the World Wide Web on 16/07/2025 for general information pertaining to the site history
- Interrogation of Gravesham Borough Council Planning records.

² The report contains British Geological Survey materials ©UKRI 2019 and public sector information licensed under the Open Government Licence v3.0.

A site reconnaissance was carried out on 22 July 2025. Current residents of the onsite property were interviewed and they provided anecdotal information.

The desk study and site reconnaissance have been used to develop an initial conceptual site model, which forms the basis for the site investigation strategy. The initial site conceptual model is used to identify geotechnical and geoenvironmental hazards and the qualitative degree of risk associated with them. In terms of the geoenvironmental assessment the conceptual site model is used to identify potential sources of contamination, potential receptors and pathways by which the two may be connected. These are known as possible contaminant linkages and it is these contaminant linkages that are key to contaminated land risk assessment.

The Phase I investigation is also referred to as a Preliminary Investigation³.

1.5 Sustainability considerations

1.5.1 Carbon reduction

There is an urgent need to optimise redevelopment to significantly reduce the carbon footprint of the process without compromising the requirement for delivering a safe and suitable use of the site. With that in mind, LEAP has worked in partnership with the University of Surrey to develop a series of carbon reduction design tools (CReDiT). These provide information on the embodied carbon cost of its report recommendations and encourage the conversation about carbon at an early stage in the design process.

Consideration has been taken throughout the report to align the recommendations with climate protection, circular economy and sustainable materials.

LEAP recognises the unique position that it occupies at the very beginning of development projects and the value of informing clients on the carbon cost of design recommendations. As such, headline information from the CReDiT tools are provided in site investigation reports without additional cost to the client. This is being done to engage furthermore detailed consultation where the full range of LEAP's sustainability capabilities can be deployed.

1.5.2 Potential for ground source heating and cooling

Most locations in the UK are suitable for the installation of ground source heating or cooling (GSHC) systems. The most appropriate type of installation is determined by the available space, heating and cooling demands of the proposed development and a number of geological and hydrogeological factors, and drilling risks (amongst other factors). LEAP can appraise these site-specific conditions through a desk-based feasibility study to assist in determining the viability of this sustainable source of heating/cooling energy at the site, should this be of interest to you. We also have in-house capability to undertake field assessments including soil thermal conductivity surveys and soil thermal response test (TRT), as well as the design and installation of GSHC systems.

³ BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites – Code of Practice.

1.6 Limitations

This report is subject to the RSK service constraints given in **Appendix A** and limitations that may be described below and throughout this document.

This report was prepared in accordance with good practice guidance at the time of issue. Consideration should be considered in the light of changes in legislation, statutory requirements, or industry practices subsequent to the date of issue.

The opinions expressed in this report, and the comments and recommendations given, are based on the information obtained from the desk assessment and the site reconnaissance survey. No intrusive investigations have been undertaken to confirm the actual ground conditions and hence the environmental status of the site.

The study aims to principally identify and assess the potential risks and liabilities associated with contamination of the ground, on and in the vicinity of the site. While this includes consideration of current operations and housekeeping on the site, the report does not constitute a comprehensive environmental audit of the site, as covered under ISO 14001.

As per the landowners request, the walkover was completed following footpaths and tram lines therefore risks associated with areas not following these routes were not assessed during the walkover.

Although asbestos may not have been encountered as part of these works, asbestos could be present in soil in discrete areas and may be encountered in future ground investigation.

A detailed survey of invasive plant species is outside the scope of this investigation therefore detailed comments with regards to such species have been omitted from this report.

The comments given in this report and the opinions expressed are primarily based on third party data and investigations, while RSK have undertaken a review of the information provided RSK cannot be held liable for the quality of the data provided. There may be conditions pertaining to the site that have not been disclosed by the investigations and therefore could not be taken into account.

2 PHASE I – DESK STUDY

2.1 Environmental setting

2.1.1 Site location and description

The site is located to the north of Camer Road and Norwood Lane, Meopham, Kent with the nearest postcode being DA13 0YF as shown in Drawing Number 11101, **Appendix B**.

The approximate National Grid Reference of the site is TQ 65022 67499. The site lies at an estimated elevation of between 85 m and 104 m Above Ordnance Datum (mAOD).

2.1.1.1 General description and boundaries

The current site layout is shown in Drawing Number 11201, **Appendix B**. A walkover survey was carried out on 22 July 2025 and photographs are included within **Appendix C**. The Groundsure report is provided as **Appendix D**.

Onsite

At the time of the walkover, the 43.18Ha site comprised a roughly triangular parcel of agricultural land cultivated with wheat/ barley, a residential property and woodland.

The site was predominantly flat, with gentle variations in topography. A ~4° slope was observed in the east, falling northeast before rising again toward the western boundary. The western portion of the site featured a gentle ~4° slope, followed by an additional gentle ~3° slope further west. The land north of the site, occupied by the Dover railway, lies approximately 1.00–2.00 m below the site level. Norwood Lane, beyond the southwestern boundary, was 0.50m–1.00m lower than the site.

The northern boundary of the site was defined by mature hedgerows, including several mature Oak trees, and metal fencing. Overhead powerlines trended onto the site from the southeast and transition underground near the northern boundary. Three pylons crossed the site from east to north.

In the southeastern area, adjacent to the boundary, remains of a derelict brick structure was noted. The structure and surrounding area were heavily overgrown with nettles, brambles, and trees. Immediately west, there was an ~25m³ stockpile of soil and vegetation, alongside fly-tipped waste such as concrete, plastic, sandstone, wood, glass, metal, and bricks. To the north of the building was a 300m³ stockpile of dark, dried organic material which the onsite occupant of the residential structure in the west indicated is likely agricultural fertiliser.

In the centre of the site was the 'Blundell's Shaw' woodland, comprising mature alder, maple, hawthorn and oak trees. Within it, two bonfire sites containing burnt wood, plastic, sofa parts, metal, bottles, cans, and food packaging were observed. In the central-southern part of the site lies a second woodland area (unnamed) consisting of many mature trees, which was inaccessible during the walkover.

A public footpath crossed the site. This trended from the railway pedestrian overpass in the north, before following the western perimeter of Blundells Shaw woodland and then diverting west towards residential properties that like some ~0.5m higher in elevation than the adjacent agricultural land.

The westernmost extent of the site was defined by overgrown grassland. Also in the west was a two story residential property with a garden and multiple out-houses including an office and a pool. A rectangular area within the residential garden is understood to have been formerly used as a horse manège and at the time of the walkover, included the storage of agricultural equipment (including rusty ploughs, trailer, tyres, and a plastic roller), together with a bonfire area. Adjacent to this area was a three-door wooden stable, currently being used to store domestic items including ladders, cardboard boxes and furniture.

Offsite

Immediately beyond the northern boundary was an area of hardstanding and the Dover railway line, secured by barbed metal fencing with warning signage. Also to the north was 'Storage Box Self Storage Ltd' - a storage facility operating from multiple metal shipping containers. The land surrounding the company could not be closely inspected during the walkover as the privately owned land was fenced off. From the limited view of the site, the site was surfaced by concrete

Between the site and railway to the northeast was a fenced off area containing railway-related construction materials, including timber pallets, plastic piping, metal tracks, plastic containers, and what appeared to be stockpiled chalk and sandstone. A small, disused concrete structure with a felt roof containing plastic waste was also noted. Also to the northeast, the Sole Street station car park contained a 400V electrical box. Adjacent to the station was 'The Railway Inn', a stone-built pub with outdoor seating, situated along the northeastern site boundary, which was enclosed by a 1.00m high wooden fence.

Camer Road borders the eastern site boundary, with a large open access point onto site. Beyond these areas are residential properties and 'Royal Hounds Dog Park', a dog training centre. To the south, Camer Road joins Norwood Lane, which borders residential properties and further agricultural land.

Residential development also borders the western boundary of the site. Meopham Station is located just beyond the northwestern boundary.

2.1.2 Geology

The geology of the site has been ascertained by reference to the 1:50,000 British Geological Survey, the BGS website (www.bgs.ac.uk) and the Groundsure report. The site is mapped as being underlain by the Thanet Sand Formation in the central eastern area of the site, and the Seaford Chalk Formation in the west and far east. Superficial Head deposits are locally mapped in the northwest and east of the site.

The Groundsure report records worked ground to be present immediately northeast of the boundary, which given the area, is likely related to the Dover Railway.

2.1.2.1 Head Deposits

Head deposits accumulated largely by solifluction (the slow downslope movement of soil in response to the seasonal freezing and thawing of ground) and hill wash, mainly under periglacial conditions during the Quaternary glaciations. In general it occurs beneath concave slopes on the

flanks and floors of valleys. It is locally derived and its content reflects the base geology, in this instance it comprises of variable deposits of impure clays, silts and sands, locally gravelly.

2.1.2.2 Thanet Sand Formation

The Thanet Sand Formation consists of fine grained pale yellow and grey mottled silty sands. The boundary with the underlying chalk is very irregular and often marked by a bed of green coated flints and glauconitic sand and clay (the Bullhead Beds).

Solution features are commonly encountered in or near Thanet Sands outcrops (particularly where there was a layer of overlying clay). This formation and the underlying chalk are also often worked.

2.1.2.3 Seaford Chalk Formation

The Seaford Chalk Formation (White Chalk Subgroup) underlays the Head deposits and Thanet Sand Formation across the site.

Chalk is a very fine grained white limestone. It consists predominantly of the disaggregated skeletal remains of tiny planktonic algae, composed of almost pure calcium carbonate.

The Seaford Chalk Formation contains semi-continuous nodular and tabular flint seams. Hardgrounds and marls can also be found within the lowest beds.

Chalk is particularly 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.

2.1.2.4 BGS boreholes

The online BGS Geoindex (<http://www.bgs.ac.uk/geoindex/>) has been reviewed for detailed local geological and hydrogeological information. 2 No. boreholes have been identified within 500 m of the site. Borehole ref TQ66NE17 located in the southeast of the site is recorded to be confidential and no information is available for review. Borehole ref TQ66NW41, located 124 m west of the site indicates ground conditions comprise hard white horizontally laminated chalk (Upper Chalk) from 2.10 m bgl, with a band of subrounded flint at 4.50 m depth, until the end of the borehole at 10.60mbgl. An SPT 'N value' was recorded as 55 at 10.25 m depth. The log shows groundwater was not encountered within the exploration depth of 10.60 mbgl.

2.1.2.5 Solution features

Solution features generally occur where preferential weathering of the chalk occurs along discontinuities or joints. They are more common along geological boundaries, where surface water runoff from impermeable soils meets the more permeable underlying chalk. They are generally infilled with loose/soft soils, and can be visible at ground level due to surface depressions, although this may be masked by overlying superficial deposits. They may lie dormant for many years, and are generally reactivated by the introduction of water from, for example, a leaking drain, soakaway etc.

2.1.3 Hydrogeology

Table 1: Hydrogeology

Superficial Deposit	Head Deposits	Secondary Undifferentiated aquifer
Bedrock	Thanet Sand Formation	Secondary A aquifer
	Seaford Chalk Formation	Principal aquifer
Source Protection Zone (SPZ)	West of site	Source Protection Zone 2
	Centre, north and south of site	Source Protection Zone 3

The hydrogeology of the site has been ascertained from the Groundsure report. The source of the data is reported to be the Environment Agency's groundwater vulnerability mapping.

The superficial Head deposits, which are mapped in the east and west of the site, are classified as a Secondary Undifferentiated aquifer whilst the underlying Seaford Chalk Formation, classified as a Principle bedrock aquifer. The Thanet Sand Formation found in the centre of the site is classified as a Secondary A bedrock aquifer.

The site is situated within groundwater SPZ2 in the west of the site, and SPZ3 in the centre, north and south of the site. A SPZ1 is located some 650 m northwest of the site. The easternmost extent of the site is not located within a groundwater Source Protection Zone.

The Groundsure report lists 5 No. active abstraction licences within 2000 m of the subject site. The nearest located 1358 m to the southeast of the site and is licenced for potable water supply (direct), sourced from the Southern Region Groundwater.

Based on the location of the groundwater Source Protection Zone and associated abstraction (northwest of the site), together with the geological structure of the chalk of the North Downs, groundwater is anticipated to flow approximately to the north/northwest.

2.1.4 Hydrology

There are no surface water features listed in the Groundsure Report with the nearest being a pond located some 520 m north of the site.

The Groundsure report indicates that there are no discharge consents or pollutant releases within 250 m of the site.

2.1.5 Flooding

According to the Environment Agency, the site is located within a Flood Zone 1, where there is a low probability of flooding from rivers and the sea.

The Groundsure report indicates that there are no historical flood events within 500 m of the site.

The highest risk of surface water flooding is recorded to be a 1 in 30 year event with depths of between 0.30 m – 1.00 m located in the north western corner of the site. The risk of groundwater flooding is recorded to be low/negligible.

2.1.6 Designated environmentally sensitive sites

A review of designated environmentally sensitive sites presented within the Groundsure report has been carried out. The dataset makes reference to a number of sensitive sites including the following:

- Sites of Special Scientific Interest (SSSI)
- Records of National Nature Reserves (NNR)
- Areas of Special Conservation (SAC)
- Records of Special Protection Areas (SPA)
- Records of Ramsar Sites
- Records of Local Nature Reserves
- Records of Ancient Woodland
- Records of Green Belt Areas
- Visual and cultural designations

The Groundsure report lists the site to be included within the London Green Belt, which is defined as an area designated to prevent urban sprawl by keeping land permanently open.

Visual and cultural designations listed in the Groundsure report include the Kent Downs 6m southeast of the site boundary (an Area of Outstanding Natural Beauty), and 10 listed buildings within 250 m of the site boundary (the nearest being Norwood Farmhouse 13 m southeast of the site).

Henly Wood, a designated ancient woodland, has been identified 428m southeast of the site boundary.

No other designated environmentally sensitive sites have been identified within 500 m of the site.

The site is located within the North Kent Nitrate Vulnerable Zone. This is an area where water draining from the land can impact nitrate levels in groundwater.

The site is not located within an affected by Nutrient Neutrality.

2.1.7 Ground workings

Surface ground workings have been reported from the historic refuse depot offsite between 1895 and 1939, adjacent to the western site boundary and extending some 234 m west. Although these works are primarily marked offsite, some of the workings extend into the western site boundary.

Additional ground workings are recorded adjacent to the northern site boundary, associated with the trainline. 7 No. records of cuttings have also been identified in this railway area. The cuttings span in length from 2.00 m north of the site to 139.00 m east of the site, between 1867 and 1955.

A brick field dating from 1867 is located 260 m north of the site has been identified. A Brit Pit entry associated with this activity has also been identified in the same area.

No underground workings have been identified within 1000 m of the site.

2.1.8 Mining, extraction and natural cavities

The Groundsure report states the site is not situated within an area affected by coal mining.

An area of natural cavities, including 10 No. solution pipes is present, trending east to 500 m of the site and extending into the north eastern. Additionally, 3 No. natural solution pipes have been identified at a point 33 m south of the site.

2.2 Site usage

2.2.1 Current land use

The current site layout is shown in Drawing No. 11201, **Appendix B**.

The site is currently used arable agricultural land, with areas of woodland and grassland in the centre and a residential dwelling in the southeast. Current onsite industrial land uses listed in the Groundsure Report include 3 No. pylons crossing the site from the east to north.

There are no active contemporary trade directory entries on site reported in the Groundsure report database search.

2.2.2 Evidence of onsite contamination

A walkover survey was carried out on 22 July 2025. The walkover was completed following footpaths around the perimeter of the site and tramlines through the central parts of the site, as requested by the landowner. Areas outside of these routes were not fully inspected during the walkover, with the general surface cover across much of the site formed of wheat/barley. The woodland area in the south of the site was not entered due to the lack of pathways leading to the area and dense vegetation.

The following features were identified as possible sources of contamination:

Onsite

- Widespread arable agricultural land.
- 2 No. bonfire sites with burnt materials (wood, metal, sofa parts, plastic) and fly tipped waste materials (metal, bottles, cans, and food packaging) within Blundell's Shaw Woodland in the centre of site.
- 1 No. ~25 m³ stockpile of soil, overgrown vegetation, metal, plastic, concrete and bricks in the southeast of the site.

Offsite

- Dover Railway immediately north of the site.

No fuel storage tanks were identified onsite and the current land owner confirmed that they were not aware of any on site.

2.2.3 Site history

The contaminative and development history of the site has been ascertained with reference to the Ordnance Survey historical maps, and Google Maps Aerial Imagery.

The earliest available historical mapping from 1867 shows the site comprises agricultural fields with tramlines, divided by footpaths, with 'Blundells Shaw' woodland area in the centre and a smaller woodland area to the south, and a structure in the west of the site. In 1895, a structure with a courtyard-like feature is mapped in the southeast of the site. Aerial imagery in 1985 indicates the house has been removed, and the courtyard brick wall remains, which is still mapped until the present day. In 1931, 3 No. electricity pylons were mapped trending across the northeast of the site.

Aerial imagery from 1994 and 1995 shows the west of the site as grassland as opposed to agricultural land. Planning applications confirm this land was used as a grazing area for horses. At the same time, a manège and stable were constructed within a fenced off triangular area adjacent to the structure in the west of the site. Since then, the site has remained largely unchanged.

In 1867, the surrounding area comprised open fields, woodland, orchards, residential dwellings, and the London, Chatham and Dover Railway to the north. By 1895, a refuse depot (Newington Vestry) was established west of the site, later taken over by Southwark Corporation by 1931, alongside allotment gardens. Industrial uses developed in the early 20th century along the northern boundary, likely associated with the railway line. 'Goods Yard' was mapped northeast of the site in 1908 and a varnish factory and associated chimney was mapped along the northern boundary in 1931, which was further expanded by 1939. Also in 1931, a 'Nursery' was labelled in the same areas as the glazed roof rectangular structure west of the site. Aerial imagery records coal storage bays northwest of the railway in 1970, which were repurposed as a general storage area in 2007. Industrial decline followed with the refuse depot no longer labelled after the 1950s, 'Goods Yard' removed by 1975, and varnish factory no longer present from the 1988 mapping; the site was cleared in 1966 and is now occupied by a 'Storage Box Self Storage Ltd' operating from metal shipping containers. By 1973, the surrounding land is defined by residential development and agricultural land.

2.2.3.1 Historical map evidence

The historical Ordnance Survey maps provided spanned the period from 1864 to present day at scales of 1:10,000, 1:2,500 and 1:1,250. The maps are included in full in **Appendix D**.

Table 2: Summary of historical map evidence

Year	On site	Surrounding area
1864	The site comprises multiple open fields, divided by footpaths and tracks, with an area of woodland in the very north west corner. 2 No. structures associated with residential housing are mapped in the west of the site adjacent to the site boundary. A pond feature is also	The site is generally surrounded by open fields, woodlands, orchards and residential dwellings. 'London, Chatham and Dover Railway' trends east to west, and is situated adjacent to the northern site boundary. Adjacent to the northwest corner of the and extending some 220m to the west is a cutting

Year	On site	Surrounding area
	present and (possible) well, located within the marked boundary of the two structures.	(for the railway line) with sidings and a station. An area of cuttings and structures associated with the railway station are mapped from the northeastern boundary to 50m beyond. Roads are mapped along the eastern, southern and western site boundary. The 'Railway Inn', a series of structures immediately northeast of the site boundary is mapped.
1867	A woodland area labelled 'Blonden Shaw' is mapped in the centre of site, and a slightly smaller area of woodland is mapped in the southern area of the site. Footpaths and tracks across the site divide the open fields. A road labelled 'Eastlands Lane' connects the two wooded areas, trending from the centre of site to the southeast.	No significant changes.
1868	Map unavailable	Map unavailable
1895	'Blonden Shaw' is relabelled 'Blundells Shaw' 'Eastlands Lane' is no longer labelled and mapped as a track. A small L-shaped structure is mapped in the southeast of the site, at the end of the track.	A rectangular structure with a glazed roof mapped 44m west of the site boundary. Directly adjacent (south) to the railway sidings northwest of the site show a series of three sided 'bay' structures present labelled as 'Meopham Refuse Depot (Newington Vestry)' 2 No. structures associated with the 'Railway Inn' have been removed.
1896	The pond feature in the west of the site is no longer present, with minor changes to the outline of the structures and a well is labelled as present.	A circular structure labelled 'Tank' is mapped 200m southwest.
1907	No significant onsite changes.	'Tanks' mapped 185m north and 265m west of the site boundary.

Year	On site	Surrounding area
1908	No significant onsite changes.	'Goods Yard' labelled immediately northeast of the site boundary. 'Allotment Gardens' are mapped immediately northwest of the site.
1931	3 No. electricity pylons are mapped in the northeast site area.	A 'Varnish Factory' is mapped, along the northern boundary. 'Meopham Refuse Depot (Newington Vestry)' relabelled as Meopham Refuse Depot (Southwark Corpn.)' adjacent to allotment gardens.
1933 – 1938	No significant onsite changes. The well in the west of the site is no longer shown as present.	Rectangular glass structure west of site now labelled as 'Nursery' a number of small unlabelled structures are also present adjacent to an access road on the eastern side of the nursery.
1939	No significant onsite changes.	'Tank' 185m north no longer mapped'. Additional structures mapped associated with the 'Vanish Factory'.
1955	No significant onsite changes	'Meopham Refuse Depot' no longer labelled but the large rectangular building with a glass roof is still mapped.
1960	No significant onsite changes	The nursery glasshouse is now mapped as a smaller square structure. The allotment gardens northwest of the site and adjacent to the railway has been partially redeveloped to form four buildings. A well is also marked directly adjacent. A residential development is mapped, adjoining the western site boundary. The circular structure labelled 'Tank', 200m southwest is no longer mapped.
1965-1966	No significant onsite changes	No significant offsite changes
1968	No significant onsite changes	The glasshouse 'Nursery' is shown as a rectangular structure and is adjacent to new residential housing to the west and north associated with Nursery Road. Residential expansion to the southwest. The orchard mapped northwest of the site are no longer mapped and several

Year	On site	Surrounding area
		unlabelled buildings are mapped in their place. Further development adjacent to the railway line (northwest) has occurred, with the allotments now no longer present and additional buildings now present. Three of the original buildings are no longer present.
1973	No significant onsite changes	The 'Nursery' glasshouse is no longer mapped, and area has been developed into residential housing. Further development is shown adjacent to the railway line (northwest) with additional buildings now present. Northeastern and western areas beyond the site boundary is predominantly residential developments. A chimney ('Chy') is labelled associated with the Varnish Factory.
1974	No significant onsite changes	No significant offsite changes
1975	No significant onsite changes	'Goods Yard' no longer mapped. Varnish Factory now labelled as 'Factory'.
1977 / 1979	No significant onsite changes.	No significant offsite changes
2001	The structure in the southeast is no longer mapped.	Varnish Factory and associated chimney are no longer mapped'.
2003 (landline maps)	Overhead powerline mapped from the east to the north of site.	No significant offsite changes.
2010	No significant onsite changes.	No significant offsite changes.
2025	No significant onsite changes	No significant offsite changes

2.2.3.2 Other evidence

Historical Aerial/ Satellite Imagery

Onsite

In 1940, the site consisted of open fields with electricity pylons trending from north to east. In 1960, the structure shown on the Groundsure historical maps appears to be an 'L' shaped building with a courtyard like feature. By 1985, the building had been removed, though the courtyard like walls remain and gradually become overgrown with vegetation until the most recent available map in

2024. By 2003, agricultural tramlines were visible across most of the site, except in the west, which has remained as grassland from 2003 to present. In 2003, a triangular parcel in the west of the site was enclosed by hedge lines and fencing, containing a rectangular area of disturbed ground. From 2011 onwards, this area became increasingly vegetated. A stable adjacent to the disturbed ground has been present from 2003 to the last available imagery in 2024.

In May 2018, August 2022 and August 2025, a dark brown stockpile is noted in the southeast of site, adjacent to the remaining walls of the former structure onsite.

Offsite

In the aerial imagery from 1940-1960, a long rectangular structure and associated smaller structures, including a chimney, are mapped in the vicinity of the 'Varnish Factory'. By 2003, all structures have been demolished, with overgrown hardstanding remaining, until 2022, where multiple rectangular shipping containers are mapped.

The aerial imagery from 1940 shows a large rectangular structure, approximately 50m west of the site. By 1960, the structure has reduced in size to a smaller rectangular structure with the former structures footprint still visible and surrounded by residential development. The next available imagery in 2003 shows this structure to no longer be present and replaced by further residential properties, as per the current layout.

In 1960, 150m northwest of the site and south of the railway, is an area where black granular material (presumed coal) is visibly stored in bays. In 2007, the bays are still present however they are used for storage of machinery/ containers, and by 2011, the area within the bays is clear. Over time the bays became more vegetated and by 2018, the area had been cleared and used for storage of containers and vehicles.

In 2007, an area of hardstanding and caravans is noted 20m north of the site boundary. By 2011, the area appears to be re-vegetated, and from 2020, is seen to be an area of reworked ground.

Groundsure Historic Aerial Photography

Aerial photography provided by the Groundsure report has been reviewed and no additional information to the above has been noted.

Gravesham Borough Council Planning history

Onsite planning applications.

Planning records indicate a series of applications (referenced GR/93/620W, GR/95/33W, REF:19950706 and GR/19970903) relating to the change of use of agricultural land to grazing and equestrian purposes for the land immediately north of the onsite residential property. This includes construction of a stable block, paddock and manège.

Former Varnish Factory

A Review of Gravesham Borough Council's planning applications have provided a detailed history of the Varnish factory immediately beyond the northern site boundary. The earliest record dates to 1931, noted during refusal of a residential development proposal in the area. Post WWII, the site

was continually used for varnish production. In 1952, Nissen huts were erected for paint and varnish storage, with a third added in 1954.

In 1975, permission was granted to replace asbestos wall cladding with brickwork. A 1979 application to convert the site for a plant hire business, including the addition of a workshop and office, was refused on the grounds of its location within the London Green Belt. By 1982, the factory was manufacturing resins, varnishes, and printing inks. It is understood that by the late 1980s, varnish production ceased, and the premises were occupied, without authorisation, by a plant hire business operating in substandard conditions; this use later ceased (REF: GR/06/0330)⁴.

The site remained vacant until 1996, when rubble and an unstable chimney were removed. There is no recorded planning history between 1996 and the present. It is understood from the recent site walkover and an online search that the area is occupied a self-storage facility operating from metal shipping containers.

No records of intrusive investigations or remediation works have been identified.

2.2.4 Unexploded ordnance (UXO)

The risks from unexploded ordnance have been assessed in accordance with CIRIA guidance⁵. A non-UXO specialist preliminary screening assessment has been carried out. The risks have been assessed by considering firstly the likelihood of military activities on, or in the vicinity of the site as determined from the desk study and historical review. Secondly the risk of UXO has been assessed by reference to the unexploded WWII aerial delivered bomb (UXB) regional risk maps produced by Zetica.

The Zetica risk maps indicate a moderate risk however high risk bomb areas are recorded 1km north and 2km west. No military activity is evident within a 1 km radius of the site. The historic maps do not indicate that there was any evidence of ruins onsite or within 500 m of the site boundary, and the surrounding area is generally rural, indicating a low potential for aerial derived UXO to be present. However, there has been no onsite post-war development which slightly increases the UXO potential. The proposed development does not include any large excavations (the largest anticipated to be footings) therefore the overall UXO risk is anticipated to be **low/moderate**.

2.2.5 Waste planning and landfill records

2.2.5.1 Recorded landfill sites

The Environment Agency website and Groundsure report contain details on areas of historic and active landfilling in the vicinity of the site.

There are no areas of historic or active landfill listed within 500m of the subject site. According to the Groundsure report, landfill records have been provided by the Environment Agency and Local Authority Records.

⁴ <https://democracy.gravesham.gov.uk/documents/s283/Norbond%20Site.pdf>

⁵ CIRIA C681 2009. Unexploded ordnance (UXO) - A guide for the construction industry

2.2.5.2 Waste management facilities

2 No. records of refuse deposits have been listed within 250 m from the site boundary, 50 m west in 1938 and 129 m northwest in 1895. No other information is available about these depots.

According to the Groundsure report, historical waste site records have been provided by local authority planning records and high detail historical mapping.

2.2.5.3 Waste transfer or treatment sites

The Environment Agency website and Groundsure report contain details on areas of historic and active landfilling in the vicinity of the site.

2.2.5.4 Waste Exemptions

The Groundsure Report lists 4 No. waste exemptions onsite for the storage of sludge. Two refer to 'non-agricultural waste only' located in the north of site nearby Blundells Shaw woodland, and in the southeast. The other two refer to the storage of sludge 'on a farm' both within the southeast of the site.

2.2.6 Radon

The Groundsure report (referenced GS-3DH-6RB-LH1-MTY) dated 11 July 2025 indicates that the centre of the site is located in an area where less than 1% of homes are above the action level (200Bq m³), and the rest of the site is in an area where between 1% and 3% of homes are above the action level (200Bq m³). Hence no radon protection measures were considered to be required.

2.3 Previous Investigations

A review of Gravesham Borough Council's planning portal has been undertaken to identify any relevant information on the ground conditions and potential sources of contamination in the vicinity of the site.

2.3.1 Former Meopham Coal Yard

The former Meopham Coal Yard, located approximately 250m west of the site was redeveloped into residential dwellings in the mid-2010s. A Stage 1 Assessment was included within the application reference 20120565 (Eldred Geotechnics Ltd stage 1 geoenvironmental assessment, REF G1207-RP-01-E1, dated 22nd June 2012) which provides a summary of the ground conditions, history of the site, and potential sources of contamination.

At the time of the walkover, the former Coal yard comprised a disused, overgrown concreted area paved with stone setts, with a derelict structure and an inaccessible storage/parking area.

No intrusive works were carried out during this investigation, therefore the information was provided by a Groundsure Report dated 8 June 2012. The site was recorded to be underlain by the Upper Chalk, with superficial Head deposits through the centre of the site. The risk of solution features across the site ranges from low (eastern end) to high (western end). The report identifies that the site underlain by a Principal aquifer and located within SPZ 2. The report states the maximum depth of the groundwater is expected to be 40- 50 m bgl, likely to be flowing north.

The report states that the site appeared to form the entrance to the refuse depot for Newington Vestry, which was later owned by the Southwark Corporation. The report concluded that wastes were stored in the buttress bays along the railways sidings, before being carted to the depot for 'disposal to the ground'. The report considers that the refuse would have mainly consisted of 'dust' containing mainly ash, hard waste, and minute amounts of putrescible material. Based on the age, the report considers that anthracite coal would have been stored.

The report highlights main contamination (potentially relevant to the Land north of Camer Road site) to include was anticipated to be:

- Putrescible waste from the former refuse depot is anticipated to have been deposited into the ground, creating a ground gas risk.
- Pesticides introduced during the former nursery

LEAP have not reviewed any subsequent intrusive investigation, contamination test results or risk assessment connected to the proposed development. It is not clear how the former refuse depot and nursery, as indicated by the historic mapping, relate to the mapped structures/buildings. This is further discussed in Section 3.

3 PRELIMINARY RISK ASSESSMENT

3.1 Preliminary geoenvironmental conceptual site model

3.1.1 Approach

A risk based approach is used in the UK to assess contaminated or potentially contaminated land. For a potential risk to exist, there must be a contaminant linkage in place, i.e. there must be a source of contamination, a potential receptor, and a pathway linking the two. The purpose of this preliminary conceptual site model (CSM) was to systematically identify all of the potential contaminant linkages using the information provided in Section B of this report.

3.1.2 Potential sources of contamination

Based on a review of the available information discussed in Section B of this report the relevant DoE Industry Profiles⁶ and Annex 3 of R&D66⁷, **Table 3** provides a summary of the potential plausible current and historical on- and off-site sources with the anticipated nature and distribution of the sources:

Table 3: Potential plausible sources of contamination

Potential Source	Potential Contaminants of Concern	Anticipated Distribution
On-Site		
Agricultural Use	Pesticides and heavy metals.	Potentially site wide, predominantly in shallower soils.
Bonfire Sites	Heavy metals and polycyclic aromatic hydrocarbons (PAHs).	Localised to the centre of site within woodland area where evidence of 2 No. former bonfire sites and burnt materials were recorded.
Made ground	Wide range of contaminants possible including asbestos, metals, polycyclic aromatic hydrocarbons (PAH), petroleum hydrocarbons and ground gases.	Unknown source, age, composition and thickness. Historic ground workings associated with the former structure with the courtyard-like feature in the southeast of the site.

⁶ Department of the Environment (DoE), Industry Profile 'Railway Land', 'Chemical Works: coatings (paints and printing inks) manufacturing works'. Accessed on 13/08/2025

⁷ NHBC and Environment Agency 'Guidance for the Safe Development of Housing on Land Affected by Contamination' R&D Publication 66: 2008.

Potential Source	Potential Contaminants of Concern	Anticipated Distribution
		Localised within the horse paddock/menage in the west of the site.
Storage of sludge	PFAS and heavy metals	Waste exemption areas in the north of the site nearby Blundells Shaw woodland area, and in the southeast of the site.
Off-Site		
Former Varnish Factory immediately north of the site. (Manufacture of paints, varnish, resins and printing inks)	Heavy metals, inorganic compounds, acids/bases, petroleum hydrocarbons, polyaromatic hydrocarbons and organic solvents (VOCS).	Potential impacts to the soils adjacent to the northeast of the site. Possible risk of vapours for from volatile contaminants. Groundwater risk (and plume beneath the site) possible.
Made ground/ reworked ground (immediately north of the site)	Wide range of contaminants possible including asbestos, metals, polycyclic aromatic hydrocarbons (PAH), petroleum hydrocarbons, ground gases.	Unknown source, age, composition and thickness. Historic ground workings associated with the Railway north of the site.
Refuse Depot c. 300m west of the site – anecdotal landfilling	Ground gases including methane, carbon dioxide, trace volatile organic compounds (VOCs).	Unknown, but potential (if present) on the western side of the site.

The risks associated with the historical landfilling and the former Refuse Depot c. 300m west of the site are currently unknown. No publicly available evidence has been found confirming that any landfilling occurred. No historic earthworks (quarries, pits, etc.) are marked as present in the location of (possible) depot. Additionally, no historic landfilling or waste deposits are indicated within the Groundsure report. Two historic waste sites are indicated to be present to the west of the site, although details are provided on the activities or usage.

Interpretation of the historic mapping, specifically the marked refuse depot and subsequent nursery, is not clear, with only a refuse depot being indicated on the maps initially, and then a refuse depot and nursery in the later map editions. Review of the historic aerial imagery from 1940 potentially shows the building/structure to have a glasshouse roof, indicative of a nursery. Furthermore, the scale of the building (being relatively large) and the absence of deposits/stockpiles/heaps around the structure or clear (substantial) trackways, would also indicate that the structure was not used (entirely) for waste management.

It is considered likely that the refuse depot relates to structures/usage adjacent to or connected with the railway and sidings to the northwest of the site. With the interpretation of the historic mapping being inaccurate due to the positioning of the map labels and (possibly) the scale of the

activities. It may be that the railway was used as part of a waste transfer operation rather than disposal in the Meopham area. Additionally, there are no landfills in the immediate vicinity of the site, with the nearest being Hartley Bottom some 2.1 km to the west. Review of historic aerial imagery from 1940 and 1960 show deposition occurring with direct rail connections into the site.

It is possible that some waste ashes may have been used as part of the allotments and nursery usage. Should any deposited wastes be present to the west of the site, there may be a risk of ground gases migrating on to the site. However, any wastes would be greater than 60 to 70 years in age and the location was redeveloped for residential housing in the 1960's.

The former varnish factory located on the northeastern site boundary poses a potential risk of contamination to the site. The production of varnishes involve a number of processes and chemicals which may have resulted in impacts to the underlying soils.

The factory is shown as present on the historical maps from the early 1930's and was operational until the 1980's. It is unknown how the site operated (including fuel, chemical or waste storage/disposal) or how it was decommissioned. From the walkover and other information sources, it appears that the site remains surfaced by concrete and is currently used as lock-up container storage.

No indication of any intrusive investigation works or remediation of contamination has been identified. As such, it is considered likely that (at least) some contamination would be present in the underlying soils that may pose a risk to the site.

Several potential contamination sources have been discounted from further assessment.

Anecdotal information provided by the current landowner indicated that the stockpile located to the east of the site is likely agricultural fertiliser/manure. This is considered unlikely to cause widespread, long-term contamination due to the short half-lives of coliforms and E.coli.

The railway to the north of the site is also considered unlikely to pose a contamination risk. Any contamination is expected to be localised to the railway sidings, which was noted during the walkover to be at a 1.50 m to 2.00 m lower elevation than the site, therefore there is a lack of pathway for contamination to migrate onto site.

The former coal storage within buttressed bays, located approximately 150 metres northwest of the site, is similarly unlikely to have caused significant ground contamination. The anticipated contaminants, primarily polycyclic aromatic hydrocarbons (PAHs) present in dust and ash residues from coal handling in the 1960s, are typically associated with coal combustion rather than storage.

The former nursery may have resulted in contamination including fuels, PAHs, metal and pesticides. However, the risks associated with this activity are considered to be low noting that the nursery was located some 300 m from the site and was redeveloped in the 1960's.

3.1.3 Potential receptors

In the context of the proposed future land use, the following potential receptors of ground contamination were identified:

3.1.3.1 Human health

- future residents, site users and commercial workers.
- neighbours to the south and west of the site.
- construction workers.

3.1.3.2 Controlled waters

- superficial Secondary Undifferentiated aquifer (Head deposits).
- bedrock Principal and Secondary A aquifer (Seaford Chalk Formation and the Thanet Sands Formation)
- SPZ 2 (west of the site) and SPZ 3 (north and south of the site)

3.1.3.3 Other

- material construction of buildings and infrastructure.
- neighbouring properties.
- 'Kent Downs' sensitive ecological site 6.00m southeast of the site.

3.1.4 Potential contaminant linkages

The potential plausible contaminant linkages are summarised in the table appended in **Appendix E** and were assigned a qualitative risk classification in line with the guidance presented in Annex 4 of R&D66. The preliminary risk levels were determined following a review of the available desk-based information with the significance of particular contaminant linkages being dependant both upon the likelihood of exposure occurring and the severity of that exposure.

3.1.4.1 Human health

The proposed development comprises residential housing with private gardens, a potential primary school, potential employment land, and a country park extension. Therefore, all the generic Contaminated Land Exposure Assessment (CLEA)⁸ exposure linkages between humans and potential contaminants in the ground are plausible i.e. direct ingestion of soil, ingestion of homegrown produce, and inhalation of indoor and outdoor vapours and dusts. Groundworkers could be potentially exposed via all these pathways, except for those involving edible plants. However, due to the low likelihood for high concentrations of contaminants to be present on-site, the potential for unacceptable risks to human health via these pathways is considered to be low for commercial workers, and moderate/low for future residents.

The assessment of future on-site users is considered to be protective of the surrounding off-site residents and off-site commercial workers.

3.1.4.2 Ground gases (excluding mine gas)

The following potential ground gas generating sources have been identified for the site:

⁸ Environment Agency 'Updated technical background to the CLEA model' Science Report: SC050021/SR3. January 2009.

- Reworked ground beyond the north eastern site boundary associated with the Dover railway.
- Unknown use of the former Refuse Depot beyond the western site boundary (possible landfilling).

Noting the underlying geology being chalk, there is a pathway for these ground gases to migrate onto site, therefore the risk has been considered low/moderate for future residents.

3.1.4.3 *Controlled waters*

The site is underlain by a Principal aquifer (Seaford Chalk Formation) and the Thanet Sands Formation (Secondary A aquifer), and is located within an SPZ2 and SPZ3. Given the water table is anticipated to be >40mbgl, and the sites limited development history, contamination (if present) is anticipated to be limited to shallow soils, therefore the likelihood of contaminated groundwater is considered low. The severity of exposure is medium noting SPZ2 and SPZ3, therefore the overall risk is considered moderate/low. Given no surface water features are present within 500m of the site boundary, risk to surface waters is considered very low.

3.1.4.4 *Sensitive ecological sites*

The Kent Downs are located 6m southeast of the site boundary. Noting contaminated soils are not likely to be present and lack of significant elevation change, there is considered to be a very low risk of contamination to the sensitive ecological site.

3.1.4.5 *Below ground infrastructure*

Noting the absence of widespread development at the site, there is not anticipated to be significant areas of made ground or contamination present. As such, there is a very low potential risk to below ground infrastructure, including concrete and plastic pipework. However intrusive investigation and chemical analysis should be carried out to confirm the risk.

3.1.5 **Summary of geo-environmental preliminary risk assessment**

The preliminary conceptual site model identified several potential contamination sources onsite and nearby, with the main contaminants of concern being fertilisers and pesticides from the historical agricultural use, asbestos from the former house in the southeast of the site, and localised heavy metals and PAHs from the bonfire sites within the woodland area.

Offsite risks relate to the former varnish factory immediately north (metals, solvents, petroleum hydrocarbons and PAHs), reworked ground near the railway to the north and potential landfilling from the former refuse depot c. 300 m to the west (ground gas generation). Potential receptors include future residents, construction workers, controlled waters, and site infrastructure, though overall risks are considered low to moderate pending intrusive investigation.

3.2 **Geotechnical risk assessment**

3.2.1 **Preliminary ground model**

Based on the findings of the desk study, the preliminary ground model for the site is summarised in **Table 4** below.

Table 4: Preliminary ground model

Ground Model	Characteristics	Notes
Ground Conditions	Superficial: Head deposits (Diamicton in the east, sand and clay in the west)	Variable deposits of impure clays, silts and sands, locally gravelly
	Bedrock: Thanet Sands (centre of site)	Fine grained pale yellow and grey mottled silty sands. Solution features are commonly encountered in or near Thanet Sands outcrops. This formation and the underlying chalk is also often worked.
	Bedrock: Seaford Chalk Formation (site wide excluding area of Thanet Sands formation in the centre)	Chalk is a very fine grained white limestone. It consists predominantly of the disaggregated skeletal remains of tiny planktonic algae, composed of almost pure calcium carbonate Chalk is particularly affected by its weathering, particularly the effects of dissolution and is susceptible to frost action.
Groundwater	Anticipated to be at depth within the Seaford Chalk and Thanet Sands formation.	Lack of nearby boreholes means the actual depth of groundwater is unknown.
Surface Water features	No surface water features on site or within 500m.	
Topography	Uneven but generally flat.	Lower elevations were noted from the walkover beyond the northern and southern boundary.
Existing structures	Brick walls in the southeast and the onsite landowner residential dwelling with outbuildings and a stable.	Deep excavations anticipated post demolition.
History	Agricultural land use, grassland and woodland. Former structure in the southeast of the site.	Historically, the site is widely undeveloped to the possibility of made ground is considered negligible. It is unknown if the foundations of the former structure in the southeast have been removed.

3.2.2 Geotechnical risk register

In order to establish the minimum requirements for geotechnical investigations, designs and post construction monitoring, it is necessary to establish the complexity of the geotechnical design and the associated risks.

The preliminary geotechnical risk register for the proposed development is summarised in the table in **Appendix E**. Details of the risk assessment methodology are presented in **Appendix E**.

3.2.3 Summary of preliminary geotechnical risk register

The following geotechnical hazards have been identified as substantial to intolerable risks:

Table 5 Geotechnical risk register summary

Geotechnical Hazard	Overall Risk	Comments
Frost Susceptible Soils	Significant	The Seaford Chalk Formation is considered to be susceptible to frost action, however the risk is lowered in areas that are overlain with head deposits in the east and west of the site.
Ground dissolution/ Natural cavities	Substantial	Soluble rocks are present within the ground. Numerous dissolution features have been recorded in worked areas offsite. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered.

The geotechnical risk assessment highlights that the site is underlain by superficial Head deposits, Thanet Sands Formation, and the Seaford Chalk Formation, with groundwater anticipated at depth but not yet confirmed. Geotechnical hazards identified include frost-susceptible soils within the chalk, posing a risk to foundations and infrastructure and ground dissolution and natural cavities in the chalk which present a substantial risk of difficult ground conditions and localised subsidence. Overall, these hazards require further investigation to inform foundation design and mitigate potential ground instability.

On the basis of the initial review and preliminary risk assessment, the site is given a Geotechnical Classification of **Geotechnical Category 1** in accordance with EN1997-1 §2.1(14)-(21).

3.3 Sustainability considerations

The geological, geotechnical and hydrological conditions of the site along with the potential for contamination can significantly influence the suitability of sustainable options on site.

The conceptual site model has indicated a low risk of contamination on site as such it is anticipated subject to testing that the soils will be suitable for reuse on site and caution should be taken to limit the disturbance of natural soils.

3.4 Data gaps and uncertainties

The preliminary risk assessment has been completed using the information available to **LEAP** at the time of preparation. It is highlighted that the following data gaps and uncertainties may limit the

level of certainty of the risk assessment and therefore will need to be confirmed by intrusive investigation works information.

The key data gaps and uncertainties include:

- No publicly accessible intrusive investigation reports on site or within 100 m of the site boundary.
- Documentation regarding the removal of the structure in the southeast is not available.
- Groundwater depth and likely flow direction has not been determined due to the lack of nearby historic boreholes.
- The site was covered by crops at the time of the site walkover survey and therefore large areas were inaccessible.
- Groundsure historical maps were unavailable between 1908 and 1931.

3.5 Recommendations for intrusive ground investigation

A number of potential sources of soil contamination, and gas risks have been identified on site, therefore it is recommended that intrusive works are undertaken to confirm the actual ground conditions and to identify possible solution features including:

- Windowless sampling boreholes to a minimum depth of 3.00 mbgl to allow installation of gas and groundwater monitoring standpipes.
- Trial pitting to a maximum depth of 3.00 mgl for inspection of ground conditions.
- Geo-environmental laboratory testing to identify contamination in shallow soils.
- GPR to help identify solution features, followed by CPT testing in areas of concern.
- Deep boreholes to determine groundwater depth and potential for deep borehole soakaways.

These should be distributed to give general coverage across the site in accordance to BS10175 section 7.7, whilst also targeting locations where made ground is likely i.e. in the location of the former house in the southeast.

The standpipes should be installed for general coverage of the site, while also targeting potential ground gas sources such as in the north of site, from the reworked ground associated with the Dover railway offsite, and potential landfilling located to the west of the site.

Geotechnical laboratory testing is also recommended to inform on foundation, road pavement and concrete design.

APPENDIX A – SERVICE CONSTRAINTS

APPENDIX A

SERVICE CONSTRAINTS

1. Service Constraints

1.1. This Report (the "Report") and any study, inspection, investigation, sampling, testing and or interpretation carried out in connection with the Report (together the "Services") were compiled and carried out by RSK Environment Limited (RSK) trading as Leap Environmental or RSK Geosciences, for the Client named in the first paragraph of the Report (the "Client") in accordance with the terms of an RSK Fee Proposal including RSK Environment Standard Terms and Conditions (the "Appointment") between RSK and the Client, unless otherwise stated in the first paragraph of the Report. The Services were performed by RSK with the reasonable skill and care ordinarily exercised by a geo-environmental consultant at the time the Services were performed. Nothing in this Report shall be construed as imposing any fitness for purpose obligation. Further, and in particular, the Services were performed by RSK taking into account the limits of the scope of works required by the Client, the time scale involved and the resources, including financial and manpower resources, agreed between RSK and the Client.

1.2 Other than that, expressly contained in paragraph 1 above, RSK provides no other representation or warranty whether express or implied, in relation to the Services. RSK shall not be liable in respect of any action or proceedings arising out of or in connection with this Report whether in contract, in tort, for breach of statutory duty or otherwise after the expiry of six (6) years from either (i) the date of the Report or (ii) such earlier date as prescribed by law, unless varied in the terms of the Appointment.

1.3 Unless otherwise agreed in writing, the Services were performed by RSK exclusively for the purposes of the Client. RSK is not aware of any interest of or reliance by any party other than the Client in or on the Services. Unless expressly provided in writing, RSK does not authorise, consent, or condone any party, other than the Client relying upon the Services. Should this Report or any part of this Report, or details of the Services or any part of the Services, be made known to any such party, and such party relies thereon, that party does so wholly at its own and sole risk, and RSK disclaims any liability to such parties. Any such party would be well advised to seek independent advice from a competent geo-environmental consultant and/or lawyer.

1.4 The Client shall not, without the prior written consent of RSK, assign, transfer, charge, mortgage, subcontract, or deal in any other manner with all or any of the benefits provided in this Report. Unless specified in the Appointment, RSK shall not be obliged to assign the benefit of the Report whether by collateral warranty, third party rights pursuant to the Contracts (Rights of Third Parties) Act 1999, letter of reliance or otherwise. If RSK agrees to any assignment of the benefit of this Report, in whatever form, benefits to third parties through collateral warranties, third party rights or letters of reliance shall not be provided unless a fee for each right, warranty or letter is agreed. The form of wording used in the warranty or letter shall be provided by RSK for agreement by the Client. Any reasonable changes to the form of wording will be implemented by mutual agreement, however the terms in the warranty or letter cannot offer the third party any greater benefit than the Appointment offered to the Client.

1.5 It is the understanding of RSK that this Report is to be used for the purpose described in the introduction to the Report. That purpose was a significant factor in determining the scope and level of the Services. Should the purpose for which the Report is used, or the proposed use of the site change, this Report may no longer be valid and any further use of or reliance upon the Report in those circumstances by the Client without the review and advice of RSK shall be at the Client's sole and own risk. RSK shall not be liable for any use of this Report for any purpose other than that for which it was provided.

1.6 The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the Report inaccurate or unreliable. The information and conclusions contained in this Report should not be relied upon in the future without the written advice of RSK. In the absence of such written advice of RSK, reliance on the Report in the future shall be at the Client's own and sole risk.

1.7 The observations and conclusions described in this Report are based solely upon the Services which were provided pursuant to the agreement between the Client and RSK. RSK has not performed any observations, investigations, studies or testing not specifically set out, or required by the Appointment between the Client and RSK. RSK is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the Services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this Report, RSK did not seek to evaluate the presence on or off site of asbestos, invasive plants, electromagnetic fields, lead paint, heavy metals, radon gas, fuel storage, persistent bio-accumulative or toxic chemicals (including PFAS and related compounds) or other radioactive or hazardous materials, unless specifically identified in the Services.

1.8 The Services are based upon RSK's observations of existing physical conditions at the Site gained from a visual inspection of the site together with RSK's interpretation of desk based publicly available information, including documentation, obtained from third parties and from the Client on the history and usage of the site, unless specifically identified in the Services and the limitations below:

- a. The Services were based on information and/or analysis provided by independent testing and information services or laboratories upon which RSK was reasonably entitled to rely.
- b. The Services were limited by the accuracy of the information, including documentation, reviewed by RSK and the observations possible at the time of the visual inspection.
- c. The Services did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the Client or third parties, including laboratories and information services, during the performance of the Services.
- d. The Client has identified in writing to RSK, the information, reports, findings, surveys and preliminary works RSK may not rely upon when providing the Services.

RSK is not liable for any inaccurate information or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to RSK, and including the doing of any independent investigation of the information provided to RSK, save as otherwise provided in the terms of the Appointment between the Client and RSK.

1.9 Any site drawing(s) provided in this Report is (are) not meant to be an accurate base plan for scale measurement but is (are) used to present the general relative locations of features on, and surrounding, the site. Features (intrusive and sample locations etc) annotated on site plans are not drawn to scale but are centred over the approximate location. Such features should not be used for accurate setting out and should be considered indicative only.

1.10 Should RSK be requested to review the Report after the date of issue of this Report, RSK shall be entitled to additional payment at the existing rates, or such other terms as agreed between RSK and the Client.

2. Service Constraints where the Report provides an intrusive assessment of ground conditions:

2.1 The intrusive environmental ground investigation aspects of the Services are a limited sampling of soil from the site, at pre-determined locations based on the known historic / operational configuration of the site. The conclusions given in this Report are based on information gathered at the specific test locations and can only be extrapolated to an undefined limited area around those locations. The extent

of the limited area depends on the properties of the materials adjacent and local conditions, together with the position of any current structures and underground utilities and facilities, and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters (as stipulated in the scope agreed between the Client and RSK, based on an understanding of the available operational and historical information) and it should not be inferred that other chemical species (not tested) are not present.

2.2 The comments given in this Report and the opinions expressed are based on the ground conditions encountered during the site work and on the results of tests made in the field and in the laboratory. The extent of the exploratory holes, laboratory testing and monitoring undertaken may have been restricted due to a number of factors including accessibility, the presence of buried or overhead services, current development, site usage, timescales or the Client's specification. The exploratory holes only assess a small proportion of the site area with respect to the site as a whole, and as such may only provide an indicative assessment of ground conditions on site. There may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account. In particular, it should be noted that there may be areas of made ground not detected due to the limited nature of the investigation or the thickness and quality of made ground across the site may be variable. In addition, groundwater levels and ground gas concentrations and flows, may vary from those reported due to seasonal, or other, effects and the limitations stated in the data should be recognised. The presence of hotspots of undisclosed contamination or exceptional and unforeseen ground conditions cannot be discounted.

2.3 Where the Services include Investigation of an exploratory nature or relating to physical ground works, any costings and prices provided in the Report are estimated and provided for guidance purposes only. The actual cost and time quantities shall be remeasured and shall be dependent upon the ground or other conditions, constraints present, and number and depth of the investigation locations, which shall influence the number of samples and tests required, and the quantities of soil being classified.

2.4 Asbestos is often observed to be present in soils in discrete areas. Whilst asbestos-containing materials may have been locally encountered during the fieldworks or supporting laboratory analysis, the history of brownfield and demolition sites indicates that asbestos fibres may be present more widely in soils and aggregates, which could be encountered during more extensive ground works. However, this Report does not constitute an asbestos survey. On this basis, the presence of asbestos on site cannot be discounted and a full asbestos survey should be undertaken.

2.5 Unless stated otherwise, only preliminary geotechnical recommendations are presented in this Report and these should be verified in a Geotechnical Design Report, once proposed construction and structural design proposals are confirmed. Eurocode 7 gives guidance on the type of sampling, sample quality, number and spacing of intrusive investigations, and number of laboratory tests required. It is intended that the Geotechnical Information section of this Report will fulfil the general requirements of the Ground Investigation Report as set out in section 6 of Eurocode7, although this is subject to the restrictions imposed on the investigation, as listed above. For geotechnical design, Eurocode 7 requires the Geotechnical Design Report to address both the geotechnical and structural aspects of the geotechnical design for both the limit and serviceability states. The Geotechnical Appraisal section of this Report will not meet the requirements of a Geotechnical Design Report (GDR) and should therefore be used for preliminary guidance only.

3. Service Constraints where the Report relates to Surface Water Management:

3.1 The Surface Water Management Inspection (SWMI) Report, documents provided, observations, actions, and recommendations, with respect to the management of potential pollution issues to surface waters, made during the site Inspection visit, are those present at the time of the visit, and may not represent those recorded by others on the same day.

3.2 The comments given in this Report and the opinions expressed are based on the weather, ground and ground water conditions encountered during the site work and on the results of tests made in the field and in the laboratory. However, there may be conditions pertaining to the site that have not been disclosed by the inspection and therefore could not be taken into account. In addition, groundwater levels and flows, may vary from those Reported due to seasonal, or other, effects and the limitations stated in the data should be recognised.

3.3 RSK places a degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this Report was prepared.

3.4 This Report is a live document, to be continually reviewed and updated as the development progresses or other changes occur on site. RSK can only maintain the currency of this Report through the Client requesting support with supplementary site visits or attendance at meetings ahead of key stages of the development in relation to surface water management. Our risk rating assesses a number of risk factors in line with the source-pathway- receptor model and is therefore subject to constant change.

3.5 Standard design drawings are indicative. Material types, dimensions and construction details will need to be adjusted by the Client to suit the specific conditions / flows on Site.

3.6 The full responsibility for implementing the site-specific protection and maintenance measures to protect the surface water system as stated in this Report, remains with the Client and their site management team. Additional control measures may be required to achieve the objectives set out in the Surface Water Management Plan to be implemented and financed by the Client.

4. Service Constraints where the Report relates to Waste Management:

4.1 In accordance with the definition provided in the Waste Framework Directive (WFD), materials are only considered waste if 'they are discarded, intended to be discarded or required to be discarded, by the holder'. Naturally occurring soils are not considered waste if re-used on the site of origin for the purposes of development. Soils such as made ground that are not of clean and natural origin (irrespective of whether they are contaminated or not) and other materials such as recycled aggregate, do not necessarily become waste until the criteria above are met. Excavation arisings from the development may therefore be classified as waste if surplus to requirements and/or unsuitable for re-use.

4.2 It is the duty of the waste producer, to ensure that all waste is accurately classified prior to waste disposal. Technical Guidance WM3 (EA, 2018) sets out in its Appendix D requirements for waste sampling. It is a legal requirement to correctly assess and classify waste. The level of sampling should be proportionate to the volume of waste and its heterogeneity. Unless otherwise stated, the waste assessment presented in this Report should be considered as preliminary and further testing and assessment of the waste under the provisions of a Waste Sampling Plan may be required to obtain the necessary level of data required for basic characterisation of the waste in support of disposal.

4.3 Unless stated otherwise in the Report, information relating to historical operations at the site was not reviewed as part of the assessment by RSK. In addition, unless otherwise stated in the Services, RSK was not present during the collection of the samples nor had any input on the chemical testing suite. Therefore, the waste assessment and classification detailed in this Report are based solely on any information that were provided to RSK (e.g., laboratory chemical data, exploratory hole records) and were completed without prejudice for our Client.

4.4 RSK assumes that any ground investigation data, chemical testing results etc., that were provided by the Client to inform the waste assessment and supporting review were carried out in accordance with current best practice and relevant guidance/ standards, where applicable. Thus, the

comments given in this Report and the opinions expressed are based solely on the information provided by the Client. However, it is noted that there may be conditions pertaining to the site that have not been disclosed by the investigation and therefore could not be taken into account as part of the RSK assessment.

5. Service Constraints for Construction Environmental Management Plan Reports:

5.1 This Report should be considered in the light of any changes in legislation, statutory requirement or industry practices that may have occurred subsequent to the date of issue.

5.2 The measures and comments outlined in this Report and any opinions expressed are based on the plans provided at the time and discussions with relevant parties. However, there may be conditions pertaining to the site that have not been disclosed by investigations and therefore could not be taken into account.

5.3 This CEMP is a live document and is subject to change throughout the project, as and when necessary, to ensure management of environmental aspects remains relevant, and to ensure continued compliance with legislation and commitments as they may change. RSK understands that this CEMP will be reviewed by the Client every six months and updated as and when necessary.

5.4 It is the full responsibility of the Principal Contractor/ Client to ensure that their works do not contravene legal requirements, and adherence to this CEMP alone cannot be a full defence regarding legal action against the Principal Contractor.

6. Service Constraints where the Report relates to Ground Gas Membrane Verification:

6.1 This Report is limited to the verification of the gas resistant membrane/vapour membrane/radon barrier after installation and no inspections were undertaken of the substrate (i.e. prepared ground). The Report therefore does not constitute as a full verification of ground gas protection system.

6.2 The comments given in this Report and the opinions expressed, are based on the condition of the ground gas membrane as encountered at the time of inspection by suitably qualified personnel. RSK cannot accept liability for any subsequent change to the status of the gas membrane by follow-on trades or other construction activity.

6.3 Where not designed by RSK, the verification of protection measures is carried out with reference to the gas protection design provided by the Client. RSK assume the scope of gas protection measures as determined by third parties to be correct and to have achieved any required approval from authorities.

6.4 The Ground Gas Design Report/Remediation Strategy and Verification Plan contains details of the procedures to be adopted for inspection and validation of the works. However, it should be noted that responsibility for the correct implementation of the strategy lies with the appointed contractor. RSK cannot be held responsible for any remedial works that are carried out without the agreed procedures involving either direct supervision by RSK, or inspection and validation of the works by a representative from RSK.

7. Service Constraints for Environmental Due Diligence (EDD) Reports:

7.1 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the site, therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information.

7.2 This Report describes the results of the EDD exercise. The scope of this EDD Report, where appropriate, covers legal or regulatory compliance with respect to UK or international regulations associated with environmental matters.

7.3 As with any EDD exercise, there is a certain degree of dependence upon information provided by the target company. The EDD does not include a site walkover / visit or liaison with site representatives unless identified in the Services. Therefore, the assessment is based on the available desk study information. Also, there is a certain degree of dependence upon oral information provided by site representatives, which is not readily verifiable through visual inspection, or supported by any available written documentation. RSK shall not be held responsible for conditions or consequences arising from relevant facts that were not fully disclosed by facility or site representatives at the time this EDD exercise was performed.

7.4 This Report, including all supporting data and notes (collectively referred to hereinafter as "information"), was prepared or collected by RSK for the benefit of its Client.

7.5 The comments given in this Report and the opinions expressed are based on the information obtained and reviewed as part of the desk-based assessment and the site inspection visit. However, there may be conditions pertaining to the Site that have not been disclosed by the assessment and therefore could not be taken into account. Furthermore, no intrusive investigations, monitoring or sampling have been undertaken to confirm the environmental status of the Site therefore any comments relating to ground conditions and subsurface contamination are based solely on a review of desk-based information and observations collected during the site inspection visit.

8. Service Constraints for Ground source heat energy Reports:

8.1 It is understood that this is a desktop survey only and that there are no requirements for a site walkover, service utility survey, or provision of service plans. These services can be provided upon request if required.

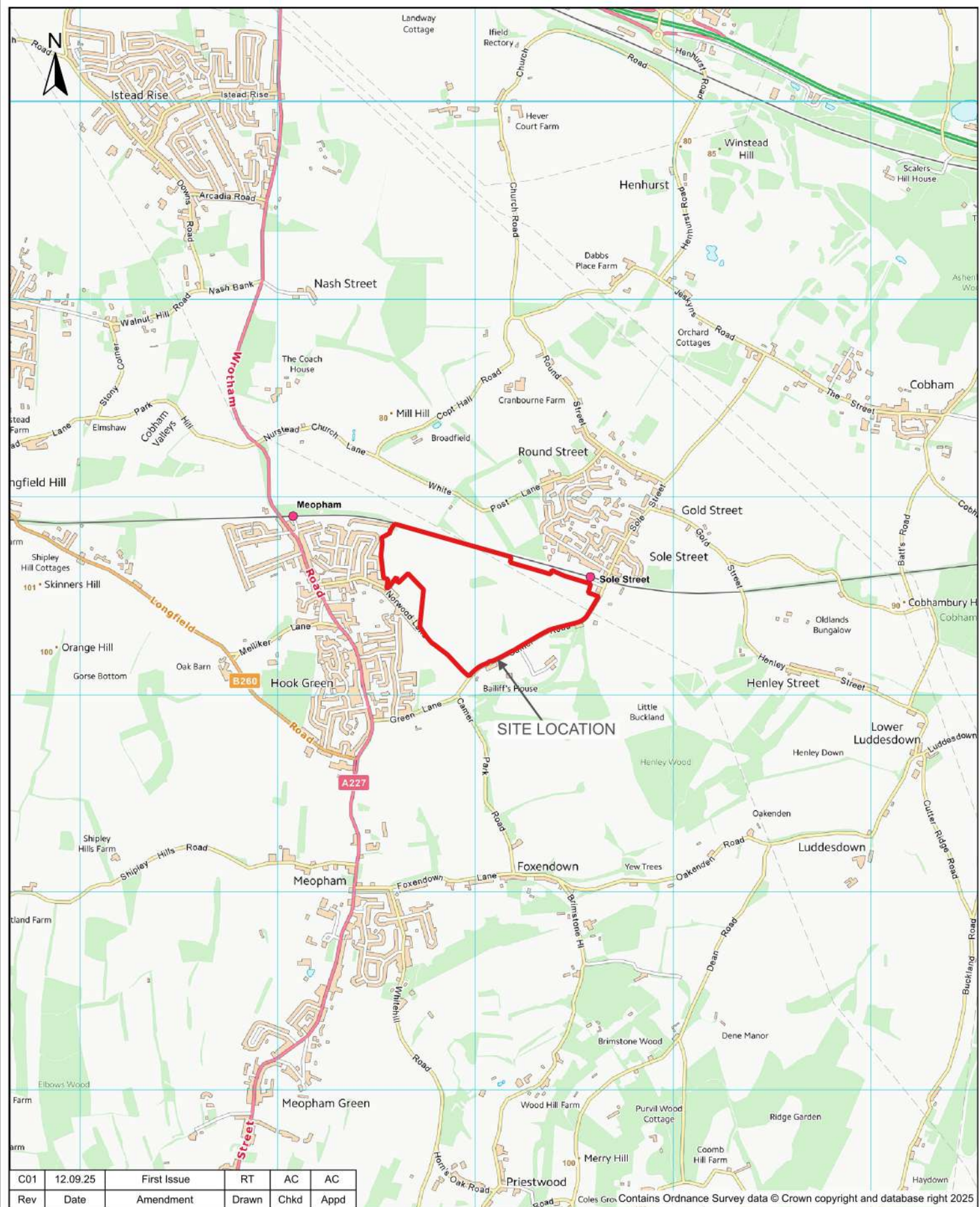
8.2 At a later stage, it is possible that a thermal response test (TRT) will need to be completed, for which a test borehole will have to be drilled, and these would be costed at the time. RSK can provide all aspects of subsequent site work for a GSHP system if required.

9. Service Constraints for Water Abstraction Borehole Reports:

9.1 The Report aims principally to only identify and assess the suitability of the site for a water abstraction borehole. This Report should be considered in the light of any changes in legislation, statutory requirements, and industry practices, that have occurred subsequent to the date of the Report.

9.2 Unless stated in the Report, the opinions expressed in this Report including all comments and recommendations provided are on the basis of the information obtained from a desk-based assessment.

APPENDIX B – FIGURES AND DRAWINGS



C01	12.09.25	First Issue	RT	AC	AC
Rev	Date	Amendment	Drawn	Chkd	Appd



The Old Oast, Spelmonden Estate, Spelmonden Road,
Goudhurst, Kent, TN17 1HE

Client

Iceni Projects

Project Name

Land North of Camer Road

Description

Site Location Plan

Dimension	Size	Scale	Geolocation	Project ID	Drawing no	Rev	File name
m	A4	1:25,000	565194, 167474	3741353	11101	C01	3741353-LE-111-XX-D-G-11101-C01



DO NOT SCALE FROM THIS DRAWING

- LEGEND**
- The Site
 - Developable Area - 12.90 ha
 - Employment Land - 1.70 ha
 - Potential Primary School
 - Mixed Uses
 - Existing Property & Paddocks
 - Key Frontage
 - Feature Building
 - Open Space Provision
 - Existing Woodland
 - Sustainable Drainage
 - Proposed Play / Gym
 - Primary Vehicular Access
 - Emergency Access
 - Active Travel Access
 - Active Travel Route
 - Footpath / PRow
 - Future Residential Development
 - Bus Routes & Stops
 - Overhead Line

Notes:
Base plan provided by the client.
Drawing Ref: 1000487 DL03 'Concept Plan - Option 1'

C01	12.09.25	First Issue	RT	AC	AC
Rev	Date	Amendment	Drawn	Chkd	Appd



leap
environmental

part of **RSK** Geosciences

The Old Oast, Spelmonden Estate, Spelmonden Road,
Goudhurst, Kent, TN17 1HE

Client
Iceni Projects

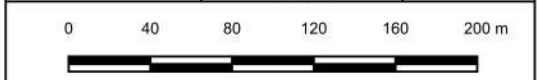
Project Name
Land North of Camer Road

Description
Proposed Development Plan

Project ID	Drawing no.	Revision
3741353	11601	C01

File name
3741353-LE-116-XX-D-G-11601-C01

Dimensions	Scale	Size
m	1:3,700	A3



APPENDIX C – PHOTOGRAPHIC RECORD

Basic Details

Site Walkover Questionnaire.



Date	22/07/2025
Project Number search	
Project Name	Land north of Camer Road
Project No.	3741353
Site Name	Land north of Camer Road
Client	
Office	
GPS Location	51° 23' 1.099" N 0° 21' 53.987" E
Site Engineer	Abbey cuthbert
Accompanied by	Hayley Bowers
Site Engineer Arrival Time	22/07/2025, 10:15
Site Engineer Departure Time	22/07/2025, 14:00
Other RSK Staff On Site	
Weather Conditions	☐ Heavy Rain ☐ Rain ☐ Drizzle ☒ Overcast ☐ Cloudy ☐ Sunny Spells ☐ Sunny ☐ Fog ☐ Snow ☐ Thunder ☐ Hail

A. Current Site Use

Question	Combined Response
A1. What are the main land uses on site?	Arable (Agricultural) ;Houses with gardens : The site is predominantly defined as arable agricultural land of wheat/ barley. Two woodland areas of mature trees are present in the centre and south of the site. The west of the site contains an area of grassland and a residential garden.
A2. What are the current land uses NORTH of the site?	Industrial;Other : Adjacent to the northern site boundary is the London, Chatham, Dover Railways line. self storage and event hire businesses occupy the indentation of land in the north between the site boundary and the railway line. Carparks and structures associated with the railway line are present beyond the northeast and the northwest boundary line.
A3. What are the current land uses EAST of the site?	Commercial;Houses with gardens;Public open space;Undeveloped / greenfield : The site is bound to the west by Camer Road, with a greyhound training center, grassland, residential properties and Camer Park country park beyond.
A4. What are the current land uses SOUTH of the site?	Arable (Agricultural) ;Houses with gardens;Other : The site is bound to the south by Camer Road, Norwood Lane, and arable farmland/ residential properties with gardens beyond.
A5. What are the current land uses WEST of the site?	Houses with gardens : The site is bound to the west by residential houses with gardens.

A6. Current Site Activities	The current site activities include farming the arable farmland. A public footpath was also present trending from the north towards the southwest of the site.
A7. Current Site Activities - Adjacent Sites	The Dover railway trends adjacent to the northern site boundary. Areas associated with this including a small derelict concrete and wood structure, and a storage area containing railways materials and a stockpile of chalk and construction materials were noted to be present.
A8. Site Boundaries	The site was bound to the north, east, south and west by hedgelines. Mature hedgelines containing mature trees were noted in the north, southeast, and west.

B. Access Constraints

B1. General Access Constraints?	() No (X) Yes
B2. Access constraints details	Site access was identified in the south off Norwood lane, and the southeast of Camer road. There were no fences or gates preventing access in these areas. Dependant on the time of the year, the crops site wide could cause an access restraint as the landowner has requested the tramlines and footpaths are followed.

Question	Combined Response
B3. Are there any areas of the site that could not or were not entered during the walkover?	Other : During the walkover, the perimeter of the site, as well as the public footpath and the tramlines were followed however due to land owner wishes, large areas where the crops were present were not accessible during the walkover. The smaller woodland area in the south of the site was inaccessible due to a lack of pathways/ tramlines towards the area.

Question	Combined Response
B4. Are there any access constraints for the SI phase?	: 2 No. overhead electricity lines were identified in the northeast of the site. The woodland areas in the centre and south of the site are densely vegetated therefore access in these areas may prove difficult.

C. Physical Characteristics

Question	Combined Response
C1. Is the Site level?	No : The site is overall predominantly flat. Slight slopes of 4 from the centre west of the site towards the western boundary , and a 4 slope from the southeast towards the north were identified.
C2. Is there any evidence of subsidence, landslip or slope erosion?	No : No evidence has been noted during the walkover.
C3. Are there any changes in level between the site and adjacent sites?	Yes : A 0.50m to 1.00m drop in elevation was noted from the southern site boundary onto Norwood Lane. Along the northern boundary, the land beyond the site sits approximately 1.00m to 2.00m lower than the site level. The east and the west of the site was level with the surrounding areas.

Enter percentage of site coverage by buildings / roads / hardstanding etc. (Soft cover is automatically calculated)

C4. Percentage Hard Cover	0
C5. Percentage Soft Cover	100
C6. Cover Details	No hard standings were present during the walkover. The surface cover was noted to be natural clay with flints below the crops.

D. Environmental Characteristics

Question	Combined Response
D1. Is there any vegetation on site?	Grasses;Hedges;Other;Shrubs;Trees : The arable agricultural land was noted to be wheat or barley crops. Hedges surrounding the site included grasses, brambles, nettles, hawthorn, maple trees, oak trees, and more. The woodland areas in the centre of site contained a significant amount of ivy, mature alder, maple, hawthorn, and oak trees. The land in the west of the site by the residential building was defined by grassland and weeds. A rectangular area of disturbed land in the residential garden contained a significant amount of green and reddish brown moss.

D2. Evidence of Vegetation Stress

Question	Combined Response
D3. Is there any evidence of invasive species being present on site?	No Invasive Species Observed : No invasive species were identified in the walkover onsite.
D4. Is there any evidence of invasive species being present on adjacent sites (within 10m of site boundary?)	No Invasive Species Observed : No invasive species were identified in the walkover offsite.

D5. Site visit in dormancy period? () Yes
(X) No

Question	Combined Response
D6. Are there any surface water features on site?	No :
D7. Are there any surface water features within 250m off site?	No :

Question	Combined Response
D8. Visual evidence of contamination of surface waters	N/A :

Drainage could be to ground, surface water sewer, foul sewer, watercourse, SuDS etc.

Include visual observations and any anecdotal information from site representatives. Obtain or consult copies of drainage plans where possible.

D9. Where does the site drain to? To the ground.

D10. Site Drainage Information No drainage infrastructure was identified in the walkover.

D11. Site Outfall Information No.

D12. Site Waterlogging or Flooding Some standing water across site. Note the walkover was completed after a long period of dry weather and then heavy rainfall in the days prior to the walkover.

E. Structures and Services

Question	Combined Response
E1. Are there any buildings on site?	Yes : A residential house in the west of the site, with a stable in the garden. A brick structure was present in the southeast of the site amongst overgrown vegetation. Stables, landowner House, and brick structure in southeast.

Question	Combined Response
E2. Any evidence of gas protection measures in buildings?	No : No evidence of gas protection measures in the buildings.

Question	Combined Response
E3. Are there any buried services present?	Yes : Overhead cables were seen going into the ground in the North.
E4. Are there any overhead services present on or adjacent to site?	Yes : Pylons from east to north and overhead powerlines from north to south. Overhead power lines along the boundaries in the north, east and southwest.

Question	Combined Response
E5. Are there any underground structures present on or adjacent to site?	No : No evidence of underground structures on site or land adjacent to the site.

E6. Phone Signal	Reasonable Signal, Over Most of the Site
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E7. Cellular Providers Tested	Tesco, EE, Vodafone
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E8. Data Connectivity	Good 4G or 5G
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F. Geotechnical Considerations

Question	Combined Response
F2. Is there any evidence of damage to existing building structures on site?	Yes : The brick structure in the southeast of the site is heavily overgrown with vegetation. A couple of bricks were present in the surrounding areas along with fly tipped materials which is expected to be from the structure. Overall, the structural remains are predominantly undamaged.
F3. Are there any remains of building structures present on or adjacent to site?	Yes : The brick structure in the southeast of the south is overgrown with vegetation. It is expected to be a part of a larger historic structure.
F4. Are there any retaining walls present on or adjacent to site?	No :
F5. Are there any abrupt changes in ground level present on or adjacent to site?	Yes : Along site boundaries and along public footpath
F6. Are there any potentially unstable slopes/ exposed ground present on or adjacent to site?	No :
F7. Are there any mature trees on site?	Yes : In the woodland areas in the center and south of the site, and within the mature hedge lines along the northern and the southern boundaries, the trees identified include: Hawthorn, Oak, Maple, and Alder Trees.
F8. Is there any visual evidence of infilled basements on site?	No :

G. Potential Evidence for Contamination

Question	Combined Response
G1. Is there any potentially hazardous materials storage and use on site?	No : The landowner has confirmed no fuel storage tanks are present onsite.
G2. Is there any waste storage on site?	No : Excluding the fly tipping in the southeast and within the woodland area, no waste storage was evident onsite during the walkover.
G3. Is there any fly tipping / litter on site?	Yes : In blundells Shaw and in brick structure in the southeast.
G4. Are there any electricity sub stations/ transformers on or near site?	Yes : No substations are noted onsite.

Question	Combined Response
G5. Is there any evidence for ACM on site?	None Observed :

Question	Combined Response
G6. Is there any visual evidence of potential contamination on site?	None Observed;Other : 2 No. areas of bonfire activity were identified within the 'Blundells Shaw' woodland area in the center of site. Fly-tipping was present in this area aswell as near the structural remains in the southeast of site.
G7. Is there any visual evidence of potential contamination on adjacent sites?	None Observed :

H. Pictures

Photos

63 records

PicNo	Select Feature	Description	Direction Taken	
1	1a. Main land use(s)	View from the south. Barley or wheat crops	S	
2	1d. Site boundaries.	Mature hedge line in the southern boundary with mature maple tree.	S	
3	1a. Main land use(s)	View from southwest	SW	

4	1a. Main land use(s)	View from west looking south offsite.	W	
5	3a. Site Topography	Slight slopes towards south and west.	W	
6	1c. Adjacent land use (s)	Beehives beyond the southern boundary	S	
7	1a. Main land use(s)	View looking north from the south	N	

8	1d. Site boundaries.	Overhead cables in the south offside. The southern boundary is bound by a small hedgeline and residential houses beyond.	S	
9	1d. Site boundaries.	Southern boundary bounded by vegetation (grasses and bushes) and a road beyond.	S	
10	1c. Adjacent land use (s)	Norwood Lane in-between small hedge and mature headgeline beyond.	S	
11	OTHER	Site access in the south from Norwood Lane.	S	

12	1c. Adjacent land use (s)	Norwood Road beyond the southern boundary at a 1m lower elevation.	S	
13	1d. Site boundaries.	Southeastern boundary, hedge line (bramble and hawthorn) with Camer Road beyond	SE	
14	1d. Site boundaries.	Overheads along southeast boundary.	SE	
15	5c. Buried and overhead services	Overheads trending from southeast towards smaller woodland area in south.	SE	

16	OTHER	Access in southeast from camer road	SE	
17	6b. Remains of building structures on site or close to site boundary	Brick structure in southeast	SE	
18	6b. Remains of building structures on site or close to site boundary	Inside of brick structure contains overgrown brambles and littering.	SE	
19	6b. Remains of building structures on site or close to site boundary	View of brick structure from Camer Road.	SE	

20	6b. Remains of building structures on site or close to site boundary	Litter on Northern side of brick structure	SE	
21	7b. Waste storage	Stockpile north of wooden structure. Contains overgrown materials, soil, metal, plastic, small plastic Christmas tree, concrete.	SE	
22	4a. Vegetation on site	Mature trees surrounding brick structure.	SE	
23	1b. Current site activities.	Stockpile of dark organic material with tomato plants growing out of it 300m3. Landowner suggests it is manure stockpile.	SE	

24	1b. Current site activities.	View of stockpile from southeast.	SE	
25	3a. Site Topography	View of northeast. Slight dip in elevation and rises again towards the eastern boundary.	NE	
26	1d. Site boundaries.	Northeastern boundary with Camer Road beyond.	NE	
27	5c. Buried and overhead services	View of electricity pylons in the north	N	

28	1d. Site boundaries.	Pub and train buildings beyond northeastern boundary. Bound by tall grasses and vegetation.	NE	
29	1c. Adjacent land use (s)	Railway beyond Northern boundary at lower elevation. A stone, brick building and a carpark is present beyond the northern boundary dark.	N	
30	4a. Vegetation on site	View of northern boundary dary. Mature tree hedgeline.	N	
31	1a. Main land use(s)	View of site from northeast looking south	NE	

32	1c. Adjacent land use (s)	Beyond east of northern boundary.	N	
33	1c. Adjacent land use (s)	Railway beyond northern boundary.	N	
34	1c. Adjacent land use (s)	Storage of construction materials beyond Northern boundary.	N	
35	1c. Adjacent land use (s)	Derelict concrete and wood structure with felt roof beyond northern boundary. Overgrown with vegetation.	N	

36	1c. Adjacent land use (s)	Stockpile of possible chalk and construction materials in storage area beyond northern boundary.	N	
37	1d. Site boundaries.	Looking West. 1m drop in elevation to offsite beyond the northern boundary.	N	
38	1c. Adjacent land use (s)	Railway carpark beyond northern boundary.	N	
39	1d. Site boundaries.	Self storage beyond northern boundary.	N	

40	1c. Adjacent land use (s)	Satellite disc and possible storage facility beyond northern boundary.	N	
41	1c. Adjacent land use (s)	Storage structure is metal shipping containers.	N	
42	5c. Buried and overhead services	Overheads going underground in north.	N	
43	5c. Buried and overhead services	Small wooden and barbed wire fence and oak trees by northern boundary	N	

44	1d. Site boundaries.	Northern boundary.	N	
45	1a. Main land use(s)	View off site from north looking southwest.	SW	
46	1a. Main land use(s)	View of site from north looking southeast.	SE	
47	1c. Adjacent land use (s)	Train tracks beyond north boundary	N	

48	1b. Current site activities.	Public footpath leading from railway in north into Blundells Shaw woodland	N	
49	7f. Evidence of possible land contamination on-site	Burnt wood and bonfire area inside Blundells Shaw. Littering of food packaging, glass, metal, plastic,	N	
50	7f. Evidence of possible land contamination on-site	Second bonfire area inside Blundells Shaw woodland including a burnt sofa, wood, metal and drum.	N	
51	4a. Vegetation on site	Trees inside Blundells shaw: alder tree, maple trees, hawthorn	N	

52	4a. Vegetation on site	Oak tree inside blundells Shaw.	N	
53	1d. Site boundaries.	NorthWest boundary.	NW	
54	3a. Site Topography	0.5m drop in elevation from public footpath to agricultural land.	W	
55	3a. Site Topography	View of western boundary. Woodland area has a 4 slope towards southwest	W	

56	1b. Current site activities.	1.00m tall wooden and metal fence separating landowners garden with agricultural field onsite in the west	W	
57	1a. Main land use(s)	Overgrown grassland.	W	
58	1c. Adjacent land use (s)	Vegetation and residential properties beyond southern boundary.	S	
59	1c. Adjacent land use (s)	Mature hedgeline in west	W	

60	1b. Current site activities.	'Disturbed land in the west'. Change in vegetation.	W	
61	1b. Current site activities.	Disturbed land. Sandy	W	
62	1a. Main land use(s)	Pile of vegetation bonfire area? Landowner confirmed horse manure 25 years ago.	W	
63	1a. Main land use(s)	Storage of farm equipment. Rusty trolley, ploughs and tires. In the west on disturbed land	W	

I. Other Observations & Sketches

Include Sketches	[]
------------------	-----

1 record

Notes / Observations
During the walkover, the landowner has confirmed: 1. The stockpile in the east of the site is manure fertiliser. 2. There are no fuel storage tanks onsite. 3. The disturbed area of land in the west used to be used as a horse menage.

Sign-Off

RSK Representative

 Hayley Bowers

RSK Representative Signature

No data

APPENDIX D – GROUNDSURE REPORT

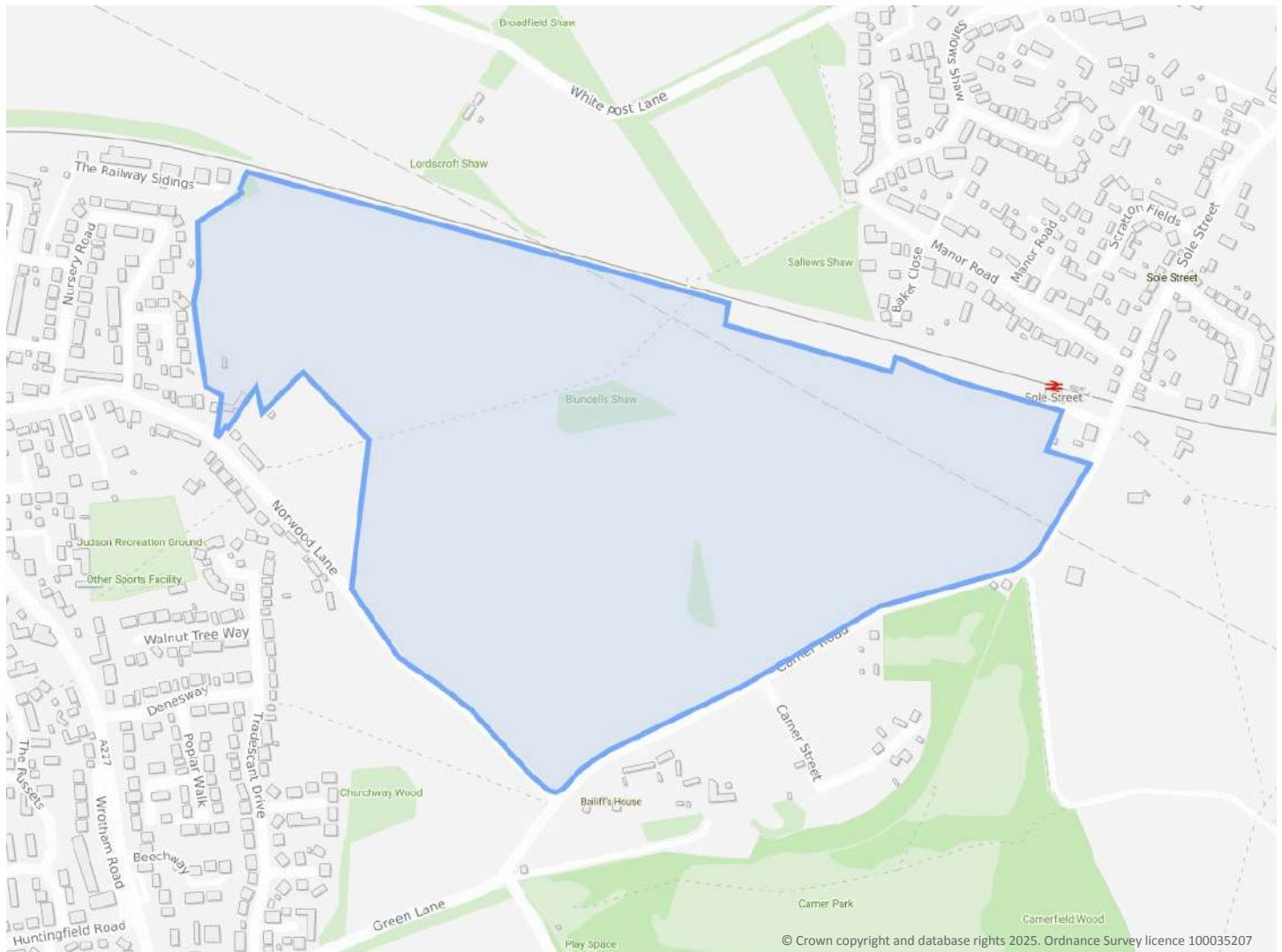
ALEXANDER HOUSE, NORWOOD LANE, MEOPHAM, GRAVESEND, KENT, DA13 0YE

Order Details

Date: 11/07/2025
Your ref: P02164007
Our Ref: GS-3DH-6RB-LH1-MTY

Site Details

Location: 565030 167497
Area: 43.18 ha
Authority: [Gravesham Borough Council](#) ↗



Summary of findings

[p. 2 >](#) **Aerial image**

[p. 9 >](#)

OS MasterMap site plan

N/A: >10ha [Insight User Guide](#) ↗

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	17	14	18	24	-
17 >	1.2 >	Historical tanks >	0	0	3	8	-
18 >	1.3 >	Historical energy features >	0	0	6	8	-
19	1.4	Historical petrol stations	0	0	0	0	-
19 >	1.5 >	Historical garages >	0	0	1	3	-
20	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
21 >	2.1 >	Historical industrial land uses >	23	18	28	37	-
25 >	2.2 >	Historical tanks >	0	0	5	15	-
26 >	2.3 >	Historical energy features >	0	0	9	10	-
27	2.4	Historical petrol stations	0	0	0	0	-
28 >	2.5 >	Historical garages >	0	0	2	4	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
29	3.1	Active or recent landfill	0	0	0	0	-
29	3.2	Historical landfill (BGS records)	0	0	0	0	-
30	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
30	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
30 >	3.5 >	Historical waste sites >	0	1	1	0	-
31	3.6	Licensed waste sites	0	0	0	0	-
31 >	3.7 >	Waste exemptions >	4	2	3	15	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
33 >	4.1 >	Recent industrial land uses >	3	5	13	-	-
35	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
35 >	4.3 >	Current or recent petrol stations >	0	0	0	1	-
35	4.4	Electricity cables	0	0	0	0	-
36	4.5	Gas pipelines	0	0	0	0	-



36	4.6	Sites determined as Contaminated Land	0	0	0	0	-
36	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
36	4.8	Regulated explosive sites	0	0	0	0	-
36	4.9	Hazardous substance storage/usage	0	0	0	0	-
37	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
37	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
37 >	4.12 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	0	1	-
37	4.13	Radioactive Substance Authorisations	0	0	0	0	-
38	4.14	Licensed Discharges to controlled waters	0	0	0	0	-
38	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
38	4.16	Pollutant release to public sewer	0	0	0	0	-
38	4.17	List 1 Dangerous Substances	0	0	0	0	-
38	4.18	List 2 Dangerous Substances	0	0	0	0	-
39 >	4.19 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	1	5	-
40	4.20	Pollution inventory substances	0	0	0	0	-
40	4.21	Pollution inventory waste transfers	0	0	0	0	-
40	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
41 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
43 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
45 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
47 >	5.4 >	<u>Groundwater vulnerability- soluble rock risk ></u>	Identified (within 0m)				
48	5.5	Groundwater vulnerability- local information	None (within 0m)				
49 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	10
52	5.7	Surface water abstractions	0	0	0	0	0
52 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	8
55 >	5.9 >	<u>Source Protection Zones ></u>	2	0	0	0	-
55	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

56	6.1	Water Network (OS MasterMap)	0	0	0	-	-
56	6.2	Surface water features	0	0	0	-	-
57 >	6.3 >	<u>WFD Surface water body catchments ></u>	1	-	-	-	-
57	6.4	WFD Surface water bodies	0	0	0	-	-
57 >	6.5 >	<u>WFD Groundwater bodies ></u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
59	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
59	7.2	Historical Flood Events	0	0	0	-	-
59	7.3	Flood Defences	0	0	0	-	-
60	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
60	7.5	Flood Storage Areas	0	0	0	-	-
61	7.6	Flood Zone 2	None (within 50m)				
61	7.7	Flood Zone 3	None (within 50m)				
Page	Section	<u>Surface water flooding ></u>					
62 >	8.1 >	<u>Surface water flooding ></u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	<u>Groundwater flooding ></u>					
64 >	9.1 >	<u>Groundwater flooding ></u>	Low (within 50m)				
Page	Section	<u>Environmental designations ></u>	On site	0-50m	50-250m	250-500m	500-2000m
65 >	10.1 >	<u>Sites of Special Scientific Interest (SSSI) ></u>	0	0	0	0	1
66	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
66	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
66	10.4	Special Protection Areas (SPA)	0	0	0	0	0
66	10.5	National Nature Reserves (NNR)	0	0	0	0	0
67	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
67 >	10.7 >	<u>Designated Ancient Woodland ></u>	0	0	0	1	19
68	10.8	Biosphere Reserves	0	0	0	0	0
68	10.9	Forest Parks	0	0	0	0	0
68	10.10	Marine Conservation Zones	0	0	0	0	0
68 >	10.11 >	<u>Green Belt ></u>	1	0	0	0	2



69	10.12	Proposed Ramsar sites	0	0	0	0	0
69	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
69	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
70	10.15	Nitrate Sensitive Areas	0	0	0	0	0
70 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	1	5
71 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
72 >	10.18 >	SSSI Units >	0	0	0	0	1
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
73	11.1	World Heritage Sites	0	0	0	-	-
74 >	11.2 >	Area of Outstanding Natural Beauty >	0	1	0	-	-
74	11.3	National Parks	0	0	0	-	-
74 >	11.4 >	Listed Buildings >	0	1	9	-	-
75 >	11.5 >	Conservation Areas >	0	0	1	-	-
75	11.6	Scheduled Ancient Monuments	0	0	0	-	-
76	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
77 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
78	12.2	Open Access Land	0	0	0	-	-
78 >	12.3 >	Tree Felling Licences >	0	1	3	-	-
79 >	12.4 >	Environmental Stewardship Schemes >	0	1	0	-	-
79 >	12.5 >	Countryside Stewardship Schemes >	1	0	1	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
80 >	13.1 >	Priority Habitat Inventory >	1	6	11	-	-
81	13.2	Habitat Networks	0	0	0	-	-
81	13.3	Open Mosaic Habitat	0	0	0	-	-
82	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
83 >	14.1 >	10k Availability >	Identified (within 500m)				
84 >	14.2 >	Artificial and made ground (10k) >	1	0	0	0	-

85 >	14.3 >	Superficial geology (10k) >	2	1	0	3	-
86	14.4	Landslip (10k)	0	0	0	0	-
87 >	14.5 >	Bedrock geology (10k) >	4	1	0	3	-
88	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
89 >	15.1 >	50k Availability >	Identified (within 500m)				
90 >	15.2 >	Artificial and made ground (50k) >	0	1	0	0	-
91	15.3	Artificial ground permeability (50k)	0	0	-	-	-
92 >	15.4 >	Superficial geology (50k) >	2	0	0	2	-
93 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
93	15.6	Landslip (50k)	0	0	0	0	-
93	15.7	Landslip permeability (50k)	None (within 50m)				
94 >	15.8 >	Bedrock geology (50k) >	2	1	1	2	-
95 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
95	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
96 >	16.1 >	BGS Boreholes >	1	0	1	-	-
Page	Section	Natural ground subsidence >					
97 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
99 >	17.2 >	Running sands >	Low (within 50m)				
101 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
102 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
103 >	17.5 >	Landslides >	Very low (within 50m)				
105 >	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
107 >	18.1 >	BritPits >	0	0	0	1	-
108 >	18.2 >	Surface ground workings >	4	3	7	-	-
109	18.3	Underground workings	0	0	0	0	0
109	18.4	Underground mining extents	0	0	0	0	-



109	18.5	Historical Mineral Planning Areas	0	0	0	0	-
109 >	18.6 >	Non-coal mining >	2	0	1	0	6
110	18.7	JPB mining areas	None (within 0m)				
111	18.8	The Coal Authority non-coal mining	0	0	0	0	-
111	18.9	Researched mining	0	0	0	0	-
111	18.10	Mining record office plans	0	0	0	0	-
111	18.11	BGS mine plans	0	0	0	0	-
112	18.12	Coal mining	None (within 0m)				
112	18.13	Brine areas	None (within 0m)				
112	18.14	Gypsum areas	None (within 0m)				
112	18.15	Tin mining	None (within 0m)				
112	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
113 >	19.1 >	Natural cavities >	1	1	0	1	-
114 >	19.2 >	Mining cavities >	0	0	0	0	2
114	19.3	Reported recent incidents	0	0	0	0	-
115	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
116 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
118 >	21.1 >	BGS Estimated Background Soil Chemistry >	16	8	-	-	-
119	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
120	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
121	22.1	Underground railways (London)	0	0	0	-	-
121	22.2	Underground railways (Non-London)	0	0	0	-	-
122	22.3	Railway tunnels	0	0	0	-	-
122 >	22.4 >	Historical railway and tunnel features >	7	17	15	-	-
123	22.5	Royal Mail tunnels	0	0	0	-	-

124	22.6	Historical railways	0	0	0	-	-
124 >	22.7 >	Railways >	0	10	7	-	-
125	22.8	Crossrail 2	0	0	0	0	-
125	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 31/05/2021

Site Area: 43.18ha



Recent site history - 2018 aerial photograph



Capture Date: 21/10/2018

Site Area: 43.18ha



Recent site history - 2012 aerial photograph



Capture Date: 25/05/2012

Site Area: 43.18ha



Recent site history - 2009 aerial photograph



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Capture Date: 23/08/2009

Site Area: 43.18ha



Recent site history - 1999 aerial photograph



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Capture Date: 03/09/1999

Site Area: 43.18ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

73

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 14](#) >

ID	Location	Land use	Dates present	Group ID
1	On site	Unspecified Station	1973 - 1979	2235915



ID	Location	Land use	Dates present	Group ID
A	On site	Railway Sidings	1955 - 1977	2208986
A	On site	Railway Building	1931	2221777
A	On site	Goods Yard	1955	2237438
A	On site	Railway Sidings	1939	2251266
A	On site	Railway Sidings	1895 - 1907	2282520
A	On site	Railway Building	1907	2314096
A	On site	Railway Building	1907	2324562
B	On site	Railway Sidings	1867	2245580
B	On site	Goods Yard	1939	2280907
B	On site	Railway Station	1955	2285206
B	On site	Goods Yard	1931	2310405
B	On site	Goods Yard	1955	2317948
C	On site	Varnish Factory	1931 - 1939	2269848
C	On site	Unspecified Factory	1966 - 1977	2297621
C	On site	Unspecified Factory	1955	2319710
D	On site	Nursery	1938	2323095
A	1m N	Railway Sidings	1907	2290487
D	2m NW	Nursery	1955 - 1965	2249674
2	2m N	Cuttings	1867	2157513
B	4m N	Railway Station	1966 - 1977	2247411
B	6m N	Railway Building	1895	2250102
B	6m N	Railway Building	1939	2256748
B	6m N	Railway Building	1907	2259193
B	6m N	Railway Building	1931	2284162
B	6m N	Railway Building	1955	2239949
B	6m N	Railway Station	1867	2290509
B	6m N	Railway Station	1907	2315328
E	7m NW	Railway Sidings	1955 - 1965	2213503



ID	Location	Land use	Dates present	Group ID
B	9m N	Railway Station	1895	2285471
B	10m N	Railway Station	1907 - 1939	2251288
E	71m NW	Railway Sidings	1938	2284665
F	73m E	Cuttings	1867	2217732
E	73m NW	Railway Sidings	1907 - 1931	2265130
E	73m NW	Railway Sidings	1939	2310267
E	124m NW	Railway Sidings	1895	2210009
E	129m NW	Refuse Depot	1895 - 1939	2205078
F	136m E	Cuttings	1955	2255678
F	138m E	Cuttings	1907	2260277
4	139m E	Cuttings	1907 - 1939	2282722
E	149m NW	Railway Sidings	1867	2269989
H	169m W	Unspecified Station	1965	2170639
I	183m N	Tank	1907	2172263
I	183m N	Unspecified Tank	1907 - 1931	2217627
H	198m W	Nursery	1939	2180003
5	215m N	Brick Field	1867	2158740
E	239m W	Unspecified Tank	1939	2259604
E	239m W	Unspecified Tank	1907	2281051
E	244m W	Unspecified Tank	1955	2262612
6	261m W	Unspecified Station	1955	2170638
K	262m SW	Unspecified Tank	1907 - 1938	2279843
7	283m N	Clay Mill	1867	2169796
M	331m SW	Smithy	1895 - 1907	2247914
E	332m W	Railway Building	1955 - 1979	2291236
M	339m SW	Smithy	1867	2181248
N	381m W	Railway Building	1907 - 1931	2298269
N	381m W	Railway Building	1939	2309904



ID	Location	Land use	Dates present	Group ID
N	386m W	Railway Building	1955	2213395
N	386m W	Railway Station	1965 - 1973	2275729
N	386m W	Railway Building	1979	2311378
11	390m SW	Telephone Exchange	1965	2189350
R	440m W	Railway Station	1867	2285943
R	442m W	Railway Station	1895	2226724
R	448m W	Railway Building	1955 - 1979	2332374
R	460m W	Railway Station	1939	2203132
R	460m W	Railway Station	1907 - 1931	2206613
R	460m W	Railway Station	1938	2324620
R	464m W	Railway Station	1955	2221896
R	464m W	Railway Station	1979	2261052
R	464m W	Railway Building	1965 - 1973	2306522
13	474m W	Cuttings	1867	2284777
T	479m SE	Tank	1907	2172269
T	479m SE	Unspecified Tank	1907	2192424

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

11

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 14 >](#)

ID	Location	Land use	Dates present	Group ID
G	111m W	Unspecified Tank	1939	392612
I	183m N	Unspecified Tank	1908 - 1936	407985



ID	Location	Land use	Dates present	Group ID
E	236m W	Unspecified Tank	1908 - 1939	419461
K	262m SW	Unspecified Tank	1896 - 1908	398122
9	378m SW	Unspecified Tank	1939	392613
10	381m NE	Unspecified Tank	1952 - 1985	412756
P	391m N	Unspecified Tank	1936 - 1939	422833
P	393m N	Unspecified Tank	1960	392598
Q	427m SW	Tanks	1960 - 1987	415938
Q	431m SW	Unspecified Tanks	1939	381015
T	479m SE	Unspecified Tank	1908	392601

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

14

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 14 >](#)

ID	Location	Land use	Dates present	Group ID
3	69m W	Electricity Transformer	1975	276985
G	120m W	Electricity Transformer	1975	276987
G	125m W	Electricity Substation	1987	277886
J	207m SW	Electricity Transformer	1975	276988
J	207m SW	Electricity Substation	1987	302791
H	211m W	Electricity Substation	1987	309383
K	269m SW	Electricity Transformer	1975	276986
K	271m SW	Electricity Substation	1987	271645
L	330m W	Electricity Transformer	1975	276984



ID	Location	Land use	Dates present	Group ID
L	331m W	Electricity Substation	1987	283997
8	377m N	Electricity Transformer	1975	276982
12	435m SW	Electricity Transformer	1974	276975
S	445m W	Electricity Transformer	1975	276983
S	459m W	Electricity Substation	1987	291609

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

4

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 14 >](#)

ID	Location	Land use	Dates present	Group ID
E	143m NW	Garage	1987	88810
O	383m W	Garage	1960	90315
O	387m W	Garage	1975	94953
O	389m W	Garage	1987	83741

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

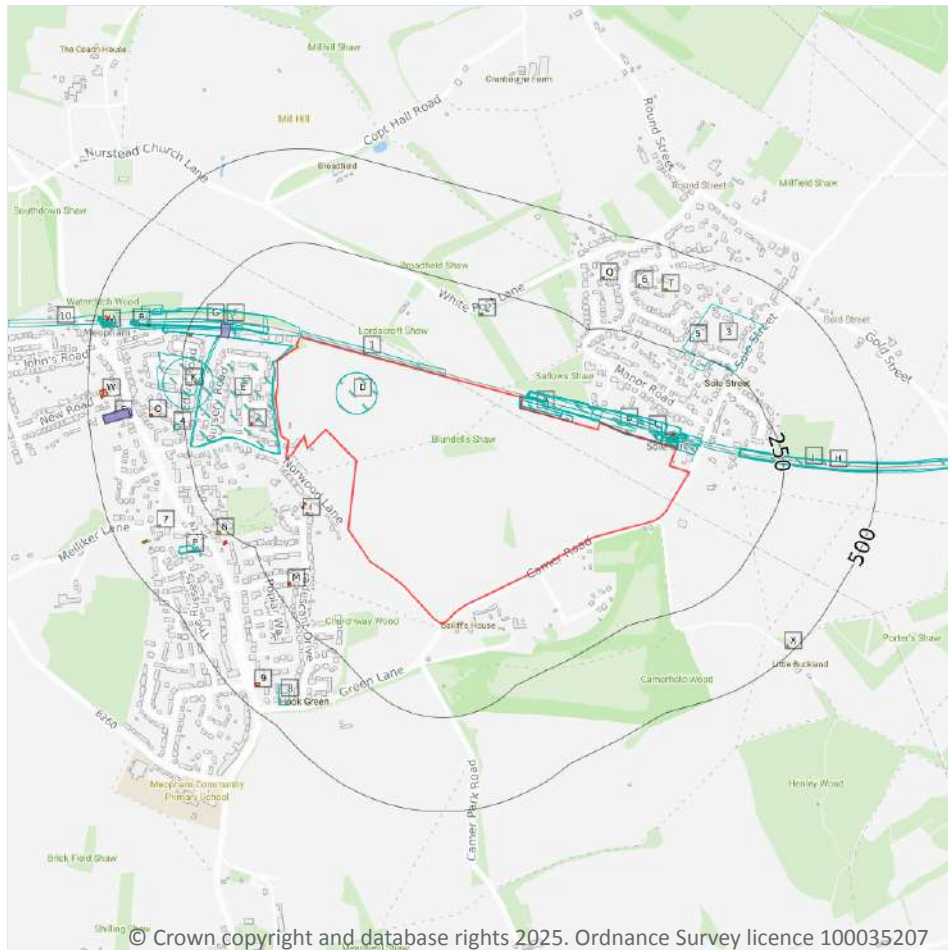
0

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 garages

2.1 Historical industrial land uses

Records within 500m

106

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 21](#) >

ID	Location	Land Use	Date	Group ID
A	On site	Varnish Factory	1939	2269848
A	On site	Varnish Factory	1931	2269848
A	On site	Unspecified Factory	1977	2297621



ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Factory	1966	2297621
A	On site	Unspecified Factory	1955	2319710
B	On site	Railway Sidings	1939	2251266
B	On site	Railway Building	1931	2221777
B	On site	Railway Sidings	1907	2282520
B	On site	Railway Building	1907	2314096
B	On site	Railway Building	1907	2324562
B	On site	Railway Sidings	1895	2282520
B	On site	Railway Sidings	1977	2208986
B	On site	Railway Sidings	1966	2208986
B	On site	Railway Sidings	1955	2208986
B	On site	Goods Yard	1955	2237438
C	On site	Goods Yard	1939	2280907
C	On site	Goods Yard	1931	2310405
C	On site	Railway Sidings	1867	2245580
C	On site	Railway Station	1955	2285206
C	On site	Goods Yard	1955	2317948
D	On site	Unspecified Station	1979	2235915
D	On site	Unspecified Station	1973	2235915
E	On site	Nursery	1938	2323095
B	1m N	Railway Sidings	1907	2290487
E	2m NW	Nursery	1965	2249674
E	2m NW	Nursery	1955	2249674
1	2m N	Cuttings	1867	2157513
C	4m N	Railway Station	1977	2247411
C	4m N	Railway Station	1966	2247411
C	6m N	Railway Building	1939	2256748
C	6m N	Railway Building	1931	2284162



ID	Location	Land Use	Date	Group ID
C	6m N	Railway Building	1907	2259193
C	6m N	Railway Building	1895	2250102
C	6m N	Railway Building	1955	2239949
C	6m N	Railway Station	1867	2290509
C	6m N	Railway Station	1907	2315328
F	7m NW	Railway Sidings	1965	2213503
C	9m N	Railway Station	1895	2285471
C	10m N	Railway Station	1939	2251288
C	10m N	Railway Station	1931	2251288
C	10m N	Railway Station	1907	2251288
G	71m NW	Railway Sidings	1938	2284665
H	73m E	Cuttings	1867	2217732
G	73m NW	Railway Sidings	1939	2310267
G	73m NW	Railway Sidings	1931	2265130
G	73m NW	Railway Sidings	1907	2265130
G	82m NW	Railway Sidings	1955	2213503
G	124m NW	Railway Sidings	1895	2210009
G	129m NW	Refuse Depot	1939	2205078
G	129m NW	Refuse Depot	1931	2205078
G	129m NW	Refuse Depot	1907	2205078
G	129m NW	Refuse Depot	1895	2205078
G	129m NW	Refuse Depot	1938	2205078
G	129m NW	Refuse Depot	1938	2205078
H	136m E	Cuttings	1955	2255678
H	138m E	Cuttings	1907	2260277
J	139m E	Cuttings	1939	2282722
J	139m E	Cuttings	1931	2282722
J	139m E	Cuttings	1907	2282722



ID	Location	Land Use	Date	Group ID
G	149m NW	Railway Sidings	1867	2269989
K	169m W	Unspecified Station	1965	2170639
L	183m N	Tank	1907	2172263
L	183m N	Unspecified Tank	1931	2217627
L	183m N	Unspecified Tank	1907	2217627
K	198m W	Nursery	1939	2180003
3	215m N	Brick Field	1867	2158740
G	239m W	Unspecified Tank	1939	2259604
G	239m W	Unspecified Tank	1907	2281051
G	244m W	Unspecified Tank	1955	2262612
4	261m W	Unspecified Station	1955	2170638
N	262m SW	Unspecified Tank	1931	2279843
N	262m SW	Unspecified Tank	1907	2279843
N	262m SW	Unspecified Tank	1938	2279843
5	283m N	Clay Mill	1867	2169796
P	331m SW	Smithy	1907	2247914
G	332m W	Railway Building	1979	2291236
G	332m W	Railway Building	1973	2291236
G	332m W	Railway Building	1965	2291236
G	332m W	Railway Building	1955	2291236
P	337m SW	Smithy	1895	2247914
P	339m SW	Smithy	1867	2181248
R	381m W	Railway Building	1939	2309904
R	381m W	Railway Building	1931	2298269
R	381m W	Railway Building	1907	2298269
R	386m W	Railway Building	1979	2311378
R	386m W	Railway Station	1973	2275729
R	386m W	Railway Station	1965	2275729

ID	Location	Land Use	Date	Group ID
R	386m W	Railway Building	1955	2213395
8	390m SW	Telephone Exchange	1965	2189350
V	440m W	Railway Station	1867	2285943
V	442m W	Railway Station	1895	2226724
V	448m W	Railway Building	1979	2332374
V	448m W	Railway Building	1973	2332374
V	448m W	Railway Building	1965	2332374
V	448m W	Railway Building	1955	2332374
V	460m W	Railway Station	1939	2203132
V	460m W	Railway Station	1931	2206613
V	460m W	Railway Station	1907	2206613
V	460m W	Railway Station	1938	2324620
V	464m W	Railway Station	1979	2261052
V	464m W	Railway Building	1973	2306522
V	464m W	Railway Building	1965	2306522
V	464m W	Railway Station	1955	2221896
10	474m W	Cuttings	1867	2284777
X	479m SE	Tank	1907	2172269
X	479m SE	Unspecified Tank	1907	2192424

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

20

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 21](#) >

ID	Location	Land Use	Date	Group ID
I	111m W	Unspecified Tank	1939	392612



ID	Location	Land Use	Date	Group ID
L	183m N	Unspecified Tank	1936	407985
L	183m N	Unspecified Tank	1908	407985
G	236m W	Unspecified Tank	1908	419461
G	236m W	Unspecified Tank	1939	419461
N	262m SW	Unspecified Tank	1896	398122
N	262m SW	Unspecified Tank	1908	398122
7	378m SW	Unspecified Tank	1939	392613
Q	381m NE	Unspecified Tank	1979	412756
Q	382m NE	Unspecified Tank	1960	412756
Q	382m NE	Unspecified Tank	1985	412756
Q	382m NE	Unspecified Tank	1952	412756
T	391m N	Unspecified Tank	1936	422833
T	391m N	Unspecified Tank	1939	422833
T	393m N	Unspecified Tank	1960	392598
U	427m SW	Tanks	1960	415938
U	428m SW	Tanks	1975	415938
U	429m SW	Tanks	1987	415938
U	431m SW	Unspecified Tanks	1939	381015
X	479m SE	Unspecified Tank	1908	392601

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

19

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 21 >](#)

ID	Location	Land Use	Date	Group ID
2	69m W	Electricity Transformer	1975	276985



ID	Location	Land Use	Date	Group ID
I	120m W	Electricity Transformer	1975	276987
I	125m W	Electricity Substation	1987	277886
I	125m W	Electricity Substation	1987	277886
M	207m SW	Electricity Transformer	1975	276988
M	207m SW	Electricity Substation	1987	302791
M	207m SW	Electricity Substation	1987	302791
K	211m W	Electricity Substation	1987	309383
K	211m W	Electricity Substation	1987	309383
N	269m SW	Electricity Transformer	1975	276986
N	271m SW	Electricity Substation	1987	271645
O	330m W	Electricity Transformer	1975	276984
O	331m W	Electricity Substation	1987	283997
O	331m W	Electricity Substation	1987	283997
6	377m N	Electricity Transformer	1975	276982
9	435m SW	Electricity Transformer	1974	276975
W	445m W	Electricity Transformer	1975	276983
W	459m W	Electricity Substation	1987	291609
W	459m W	Electricity Substation	1987	291609

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

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'.

This data is sourced from Ordnance Survey / Groundsure.



2.5 Historical garages

Records within 500m

6

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'.

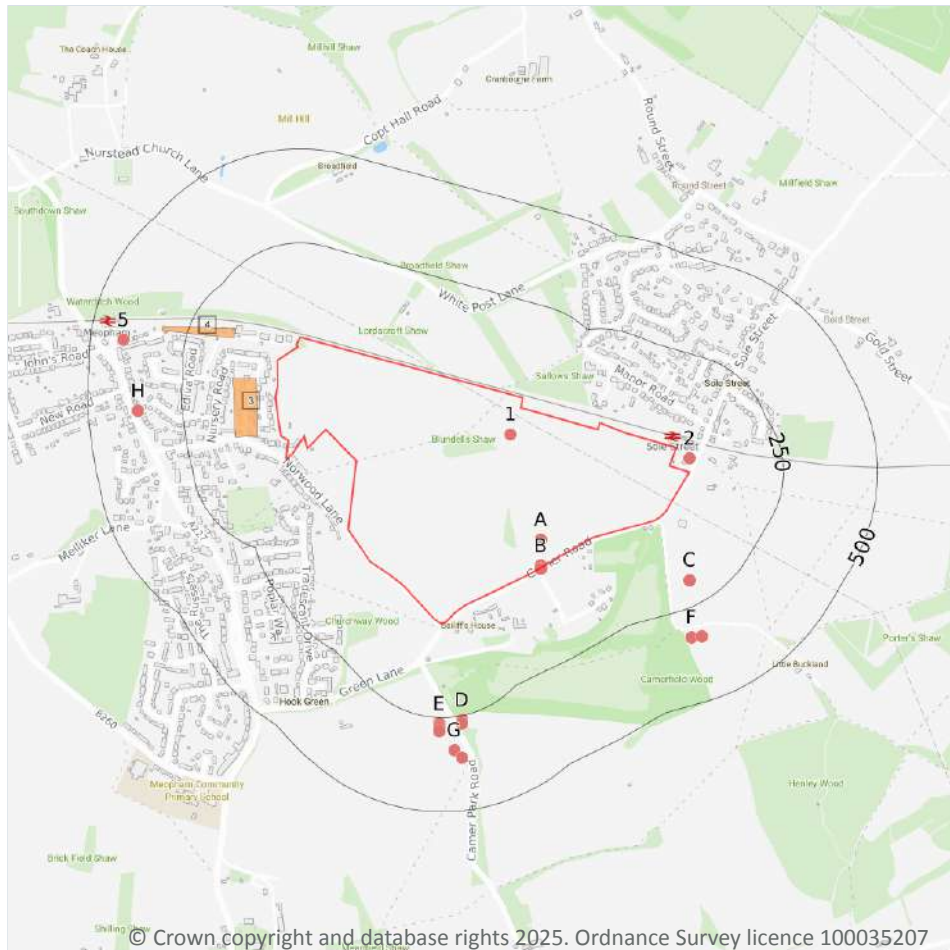
Features are displayed on the Past land use - un-grouped map on [page 21](#) >

ID	Location	Land Use	Date	Group ID
F	143m NW	Garage	1987	88810
F	143m NW	Garage	1987	88810
S	383m W	Garage	1960	90315
S	387m W	Garage	1975	94953
S	389m W	Garage	1987	83741
S	389m W	Garage	1987	83741

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical waste sites
- 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

0

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.

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

0

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.

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

3.5 Historical waste sites

Records within 500m

2

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

Features are displayed on the Waste and landfill map on [page 29 >](#)

ID	Location	Address	Further Details	Date
3	50m W	Site Address: N/A	Type of Site: Refuse Depot Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1938
4	129m NW	Site Address: N/A	Type of Site: Refuse Depot Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1895

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

24

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 29 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
1	On site	Clements Reach Farm Shipleigh Hills Road Gravesend Kent Da13 0ad	EPR/HE5154Z K/A001	Storing waste exemption	Non- agricultural waste only	Storage of sludge
A	On site	-	WEX110360	Storing waste exemption	On a farm	Storage of sludge
A	On site	Clements Reach Farm Shipleigh Hills Road Gravesend Kent Da13 0ad	EPR/ZE5542N W/A001	Storing waste exemption	Non- agricultural waste only	Storage of sludge
B	On site	-	WEX294696	Storing waste exemption	On a farm	Storage of sludge
B	5m SE	-	WEX432487	Storing waste exemption	On a farm	Storage of sludge
2	33m N	The Old Varnish Factory, Sole Street, Cobham, Gravesend, Da13 0xy	WEX028855	Using waste exemption	Not on a farm	Use of waste in construction
C	184m SE	-	WEX443524	Storing waste exemption	On a farm	Storage of sludge
C	184m SE	Shipleigh Hills Farm Shipleigh Hills Road Gravesend Kent Da13 0ad	EPR/GF0105E M/A001	Storing waste exemption	Non- agricultural waste only	Storage of sludge
C	184m SE	Clements Reach Farm, Shipleigh Hills Road, Meopham, Gravesend, Da13 0ad	WEX145320	Storing waste exemption	On a farm	Storage of sludge
D	262m S	-	WEX167997	Storing waste exemption	On a farm	Storage of sludge

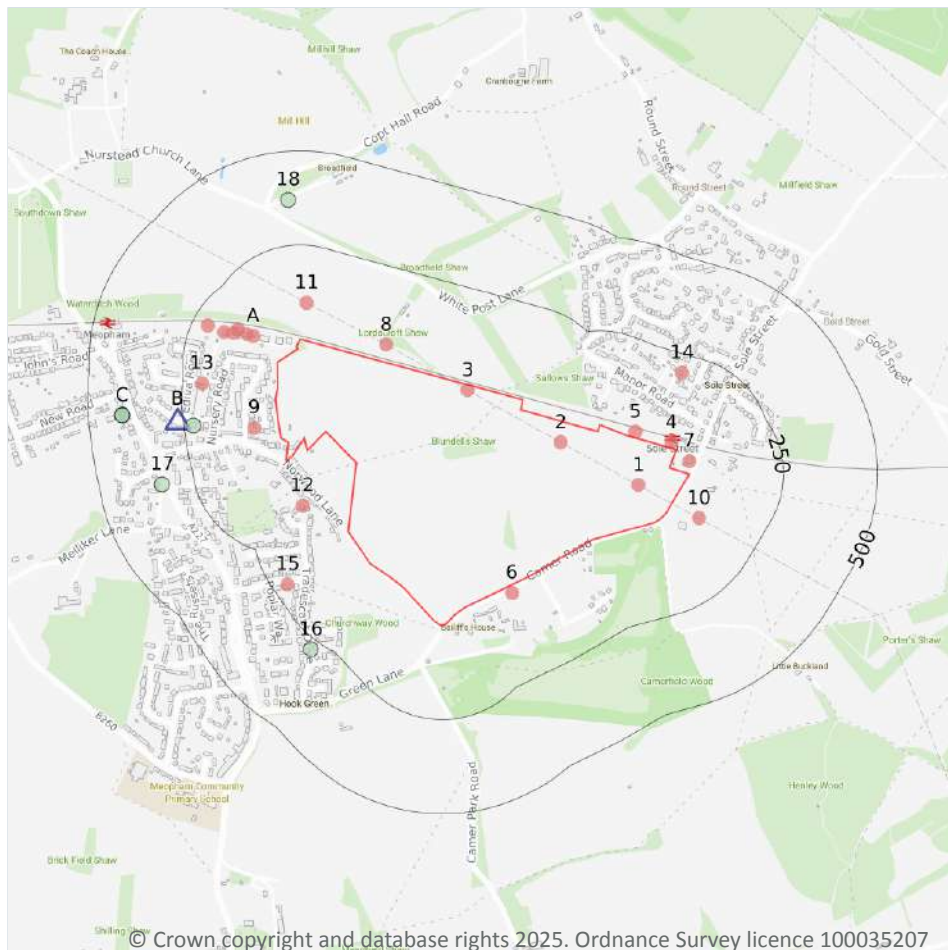


ID	Location	Site	Reference	Category	Sub-Category	Description
D	262m S	Clements Reach Farm Shipleigh Hills Road Gravesend Kent Da13 Oad	EPR/HE5283W K/A001	Storing waste exemption	Non- agricultural waste only	Storage of sludge
D	262m S	Clements Reach Farm Shipleigh Hills Road Gravesend Kent Da13 Oad	EPR/ZE5342NZ /A001	Storing waste exemption	Non- agricultural waste only	Storage of sludge
E	267m S	-	WEX227455	Storing waste exemption	On a farm	Storage of sludge
D	272m S	-	WEX294695	Storing waste exemption	On a farm	Storage of sludge
E	277m S	-	WEX294697	Storing waste exemption	On a farm	Storage of sludge
E	287m S	-	WEX432488	Storing waste exemption	On a farm	Storage of sludge
F	326m S	-	WEX294694	Storing waste exemption	On a farm	Storage of sludge
F	333m S	-	WEX390337	Storing waste exemption	On a farm	Storage of sludge
G	339m S	-	WEX080438	Storing waste exemption	On a farm	Storage of sludge
G	361m S	Clements Reach Farm Shipleigh Hills Road Gravesend Kent Da13 Oad	EPR/HE5183W X/A001	Storing waste exemption	Non- agricultural waste only	Storage of sludge
H	368m W	Wrotham Road, Meopham, Gravesend, Da13 Ohp	WEX150675	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	368m W	Wrotham Road Meopham Gravesend Da13 Ohp	WEX001538	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	368m W	Wrotham Road, Meopham, Gravesend, Da13 Ohp	WEX417659	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
5	413m W	Meopham Pharmacy Wrotham Road Meopham Kent Da13 Ohp	EPR/AE5752EC /A001	Treating waste exemption	Non- agricultural waste only	Sorting and de-naturing of controlled drugs for disposal

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)
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

21

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 33](#) >

ID	Location	Company	Address	Activity	Category
1	On site	Pylon	Kent, DA13	Electrical Features	Infrastructure and Facilities
2	On site	Pylon	Kent, DA13	Electrical Features	Infrastructure and Facilities
3	On site	Pylon	Kent, DA13	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
4	15m N	Sole Street Rail Station	Kent, DA13	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure
5	16m N	Mast (Telecommunication)	Kent, DA13	Telecommunications Features	Infrastructure and Facilities
6	19m SE	Electricity Sub Station	Kent, DA13	Electrical Features	Infrastructure and Facilities
7	33m N	Storage Box Self Storage	Sole Street, Cobham, Gravesend, Kent, DA13 OXY	Container and Storage	Transport, Storage and Delivery
8	46m N	Pylon	Kent, DA13	Electrical Features	Infrastructure and Facilities
9	66m W	Electricity Sub Station	Kent, DA13	Electrical Features	Infrastructure and Facilities
10	82m SE	Pylon	Kent, DA13	Electrical Features	Infrastructure and Facilities
A	95m NW	Robert Hudson Construction	Brunel House Railway Sidings, Ediva Road, Meopham, Gravesend, Kent, DA13 OLT	Office and Shop Equipment	Industrial Products
11	99m N	Pylon	Kent, DA13	Electrical Features	Infrastructure and Facilities
A	111m NW	Rim Tec	Workshop and Premises Railway Sidings, Ediva Road, Meopham, Gravesend, Kent, DA13 OLT	Special Purpose Machinery and Equipment	Industrial Products
12	125m S	Electricity Sub Station	Kent, DA13	Electrical Features	Infrastructure and Facilities
A	136m NW	Danny's Custom Paint Ltd	Unit 2a Railway Sidings, Ediva Road, Meopham, Gravesend, Kent, DA13 OLT	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	139m NW	Toyota Centre	Unit 2b Railway Sidings, Ediva Road, Meopham, Gravesend, Kent, DA13 OLT	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	163m NW	Meopham Garage	Railway Sidings, Ediva Road, Meopham, Gravesend, Kent, DA13 OLT	Vehicle Repair, Testing and Servicing	Repair and Servicing
13	201m W	Electricity Sub Station	Kent, DA13	Electrical Features	Infrastructure and Facilities
14	201m N	Climate Care Ltd	4, Manor Court, Cobham, Gravesend, Kent, DA13 9BU	Construction Completion Services	Construction Services



ID	Location	Company	Address	Activity	Category
A	209m NW	Mast (Telecommu nication)	Kent, DA13	Telecommunications Features	Infrastructure and Facilities
15	211m SW	Electricity Sub Station	Kent, DA13	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

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

Records within 250m	0
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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	1
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Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 33](#) >

ID	Location	Company	Address	LPG	Status
B	266m W	OBSOLETE	Wrotham Road, Meopham, Gravesend, Kent, DA13 0RF	Not Applicable	Obsolete

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0
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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

1

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 33](#) >

ID	Location	Address	Details	
C	410m W	Meopham Service Station, Wrotham Road, Meopham, Kent, DA13 0HT	Process: Unloading of Petrol into Storage at Terminals Status: Historical 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

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**0**

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

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	6
---------------------	---

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 33](#) >

ID	Location	Details	
B	225m W	Incident Date: 26/08/2002 Incident Identification: 103116 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
16	277m SW	Incident Date: 18/05/2002 Incident Identification: 79681 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Effects on Humans	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
17	334m W	Incident Date: 06/08/2003 Incident Identification: 179517 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
18	373m N	Incident Date: 03/10/2002 Incident Identification: 112400 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
C	409m W	Incident Date: 15/10/2001 Incident Identification: 36793 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
C	409m W	Incident Date: 15/10/2001 Incident Identification: 36793 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) 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

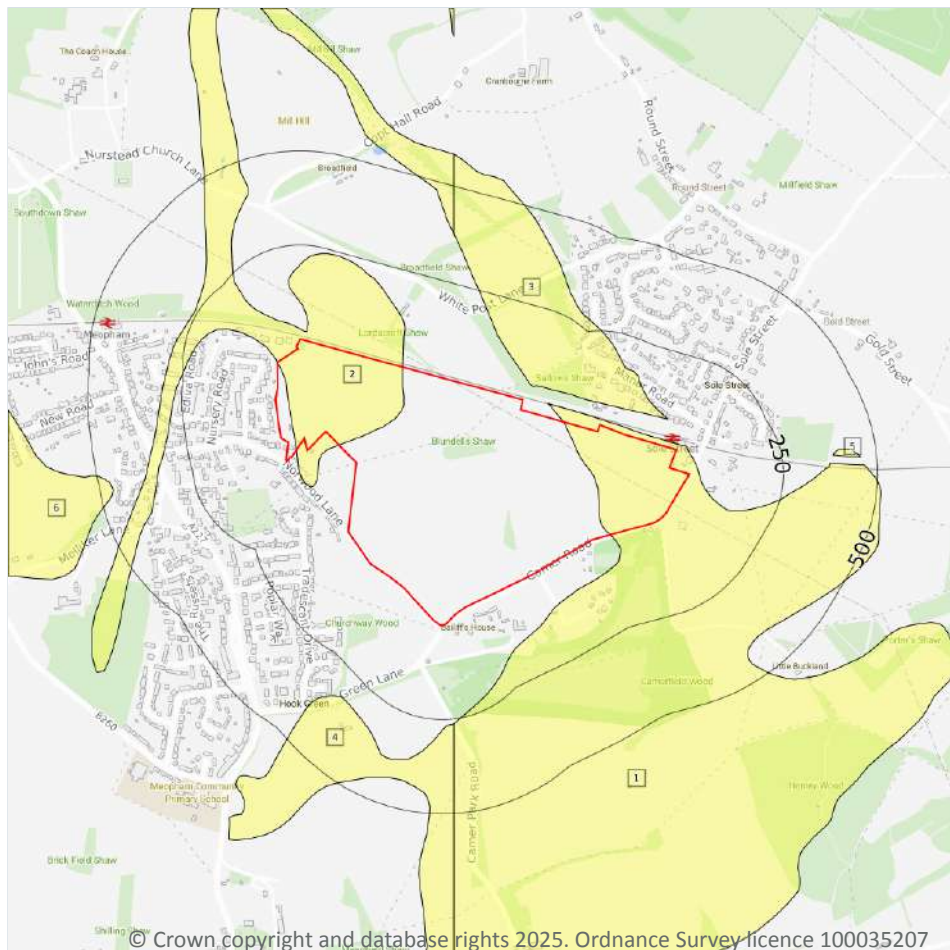
Records within 500m

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 41](#) >

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

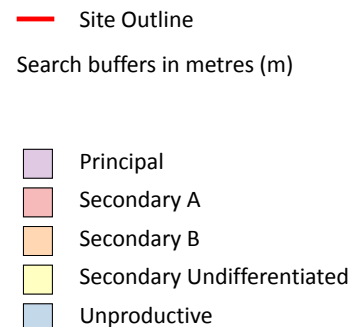
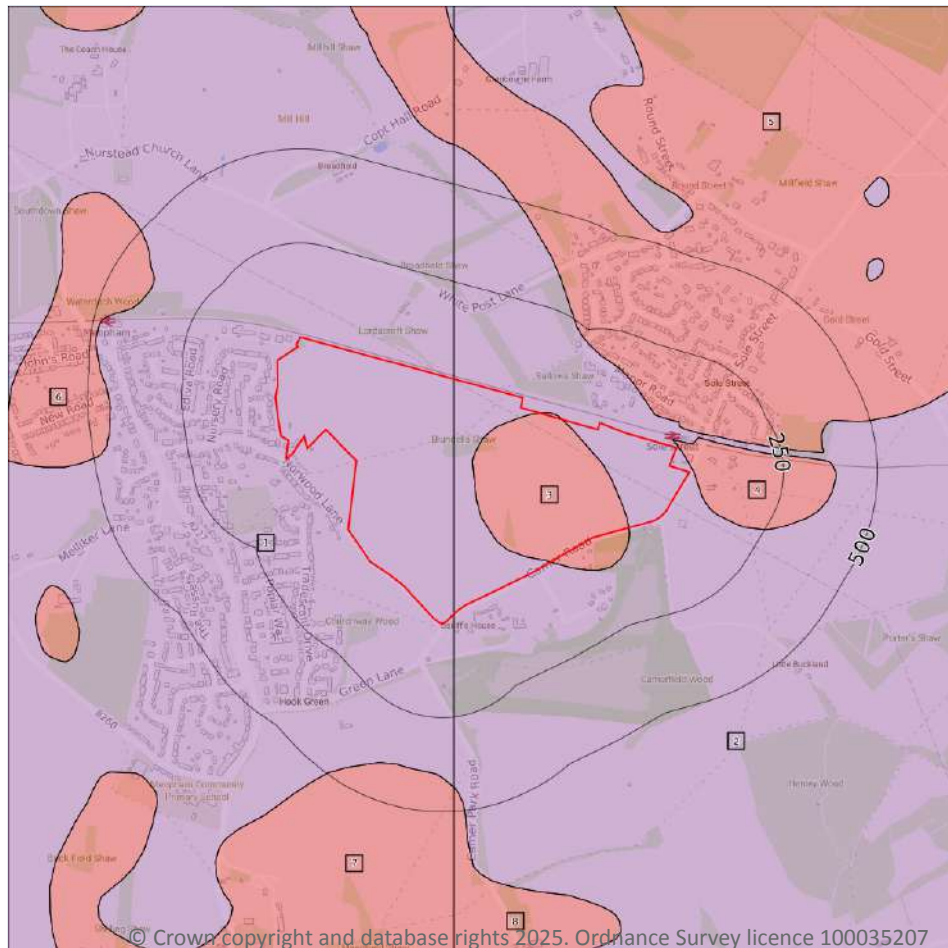


ID	Location	Designation	Description
3	44m NE	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	263m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
5	386m E	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
6	465m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

8

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 43](#) >

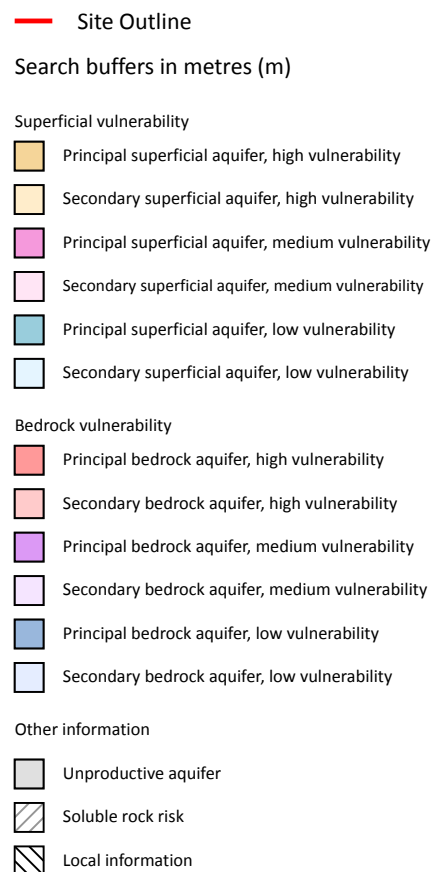
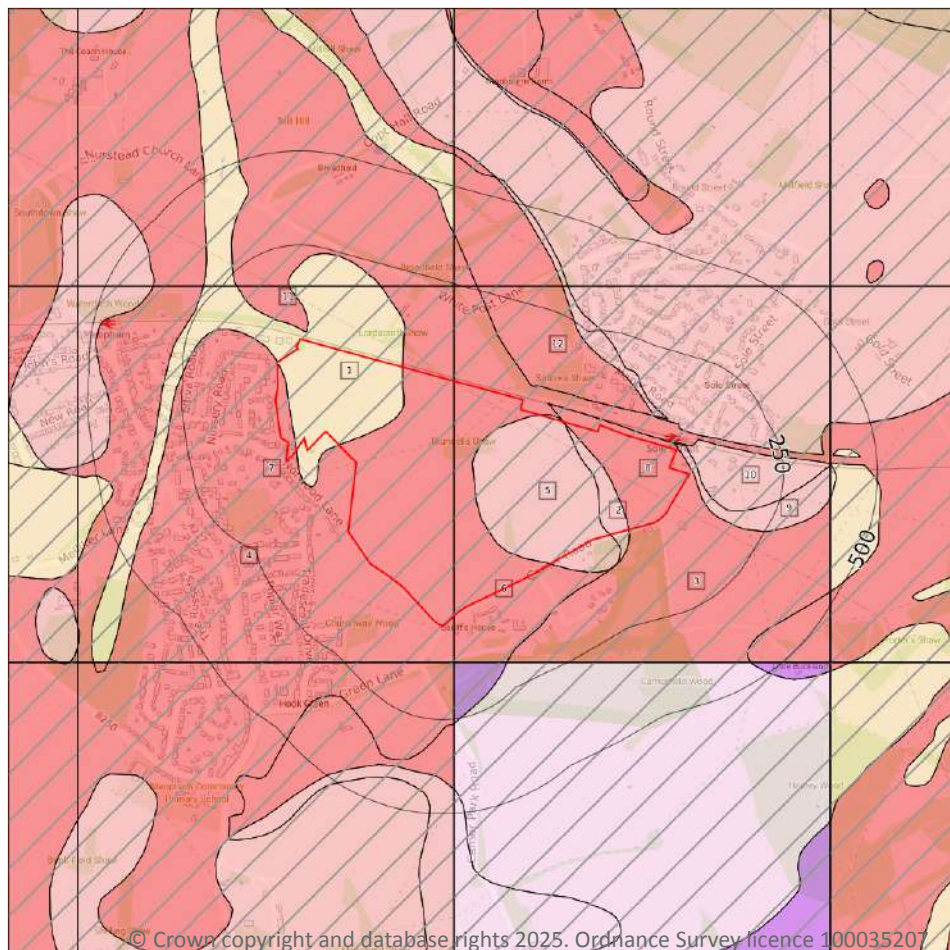
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	On site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



ID	Location	Designation	Description
3	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
4	6m NE	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	55m N	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	385m NW	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
7	393m 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
8	435m 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

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

10

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 45](#) >

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: 40- 70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
3	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
4	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
5	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
6	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
9	6m NE	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
10	15m N	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
11	24m N	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
12	44m NE	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Low	Vulnerability: High 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
7	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.	4.0%
8	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.	26.0%

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



5.5 Groundwater vulnerability- local information

Records on site

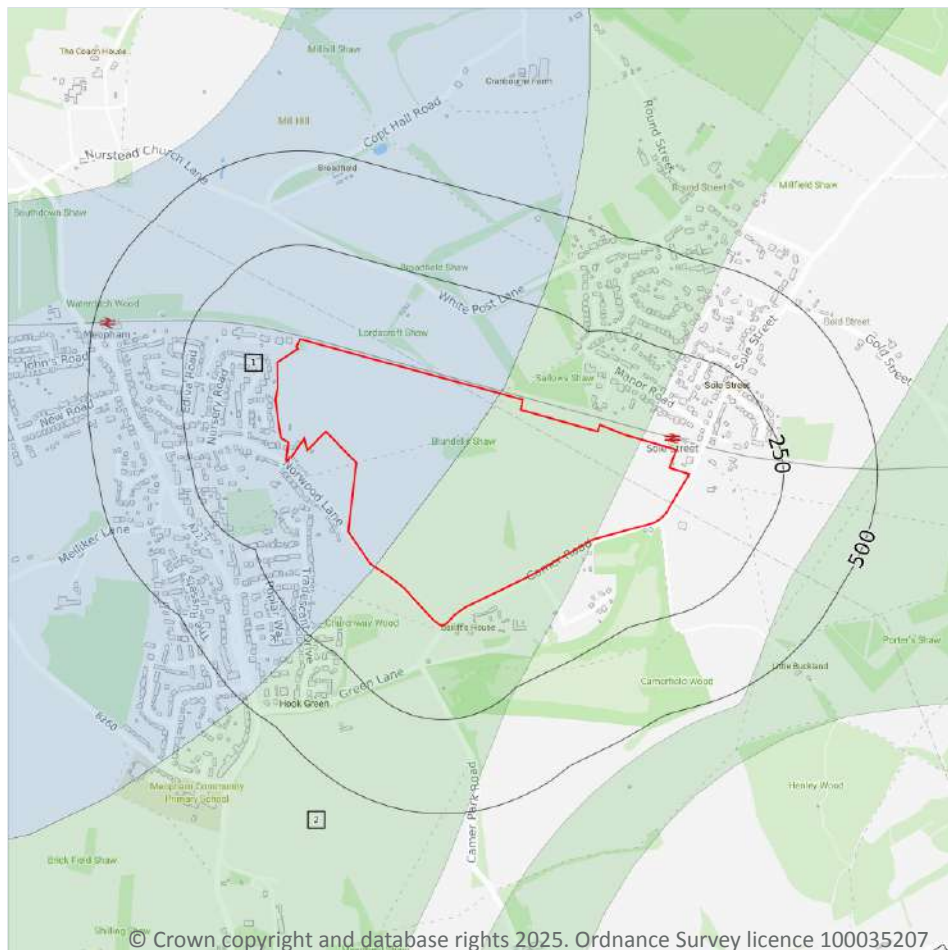
0

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
Point 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

10

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 49](#) >



ID	Location	Details	
A	1358m SE	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
A	1358m SE	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
A	1358m SE	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
A	1358m SE	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -



ID	Location	Details	
-	1374m NE	Status: Active Licence No: SO/040/0001/046 Details: Trickle Irrigation - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT PARSONAGE FARM Data Type: Point Name: Adrian Scripps Limited Easting: 566625 Northing: 168470	Annual Volume (m ³): 9843 Max Daily Volume (m ³): 274 Original Application No: NPS/NA/000394 Original Start Date: 07/12/2021 Expiry Date: 31/03/2030 Issue No: 1 Version Start Date: 07/12/2021 Version End Date: -
-	1511m NW	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
-	1511m NW	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
-	1511m NW	Status: Historical Licence No: 9/40/01/0511/G Details: Transfer between sources Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Plc Easting: 563900 Northing: 169250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 06/12/1988 Version End Date: -

ID	Location	Details	
-	1511m NW	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
-	1511m NW	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0
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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.

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

5.8 Potable abstractions

Records within 2000m	8
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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 49](#) >

ID	Location	Details	
A	1358m SE	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
A	1358m SE	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
A	1358m SE	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
A	1358m SE	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT LUDDLESDOWN PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 566300 Northing: 166250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -

ID	Location	Details	
-	1511m NW	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
-	1511m NW	Status: Historical Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 92000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
-	1511m NW	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: CHALK BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -
-	1511m NW	Status: Active Licence No: 9/40/01/0511/G Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: LOWER GREENSAND BOREHOLES, WELLS AND ADITS AT NORTHFLEET PS Data Type: Poly4 Name: Southern Water Services Ltd Easting: 563900 Northing: 169250	Annual Volume (m ³): 17700000 Max Daily Volume (m ³): 88000 Original Application No: 169/0639D Original Start Date: 24/03/1986 Expiry Date: - Issue No: 100 Version Start Date: 27/11/2006 Version End Date: -

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



5.9 Source Protection Zones

Records within 500m**2**

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on [page 49 >](#)

ID	Location	Type	Description
1	On site	2	Outer catchment
2	On site	3	Total catchment

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

5.10 Source Protection Zones (confined aquifer)

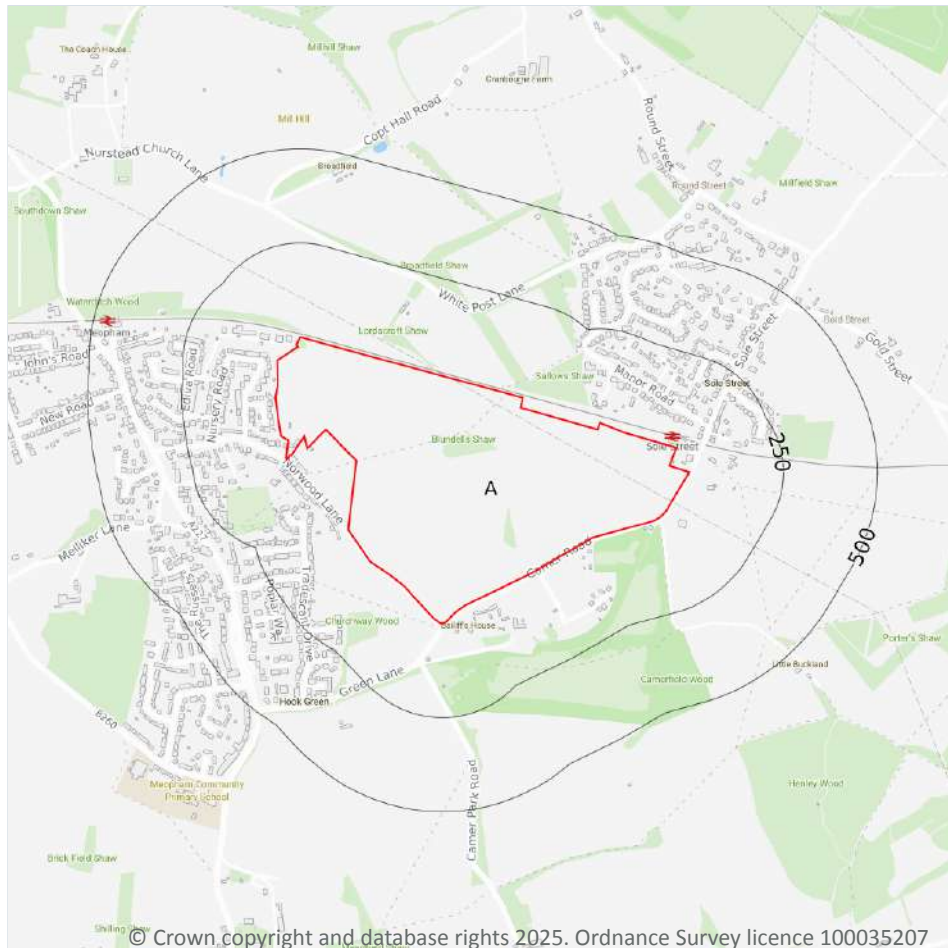
Records within 500m**0**

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

0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

0

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.



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 56 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	Coastal Catchment	Not part of a river WB catchment	130	Lower Medway	Medway

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

6.4 WFD Surface water bodies

Records identified	0
---------------------------	----------

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.

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

6.5 WFD Groundwater bodies

Records on site	1
------------------------	----------

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 56 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	North Kent Medway Chalk	GB40601G500300 ↗	Poor	Poor	Poor	2019



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



7 River and coastal flooding

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

0

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.

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

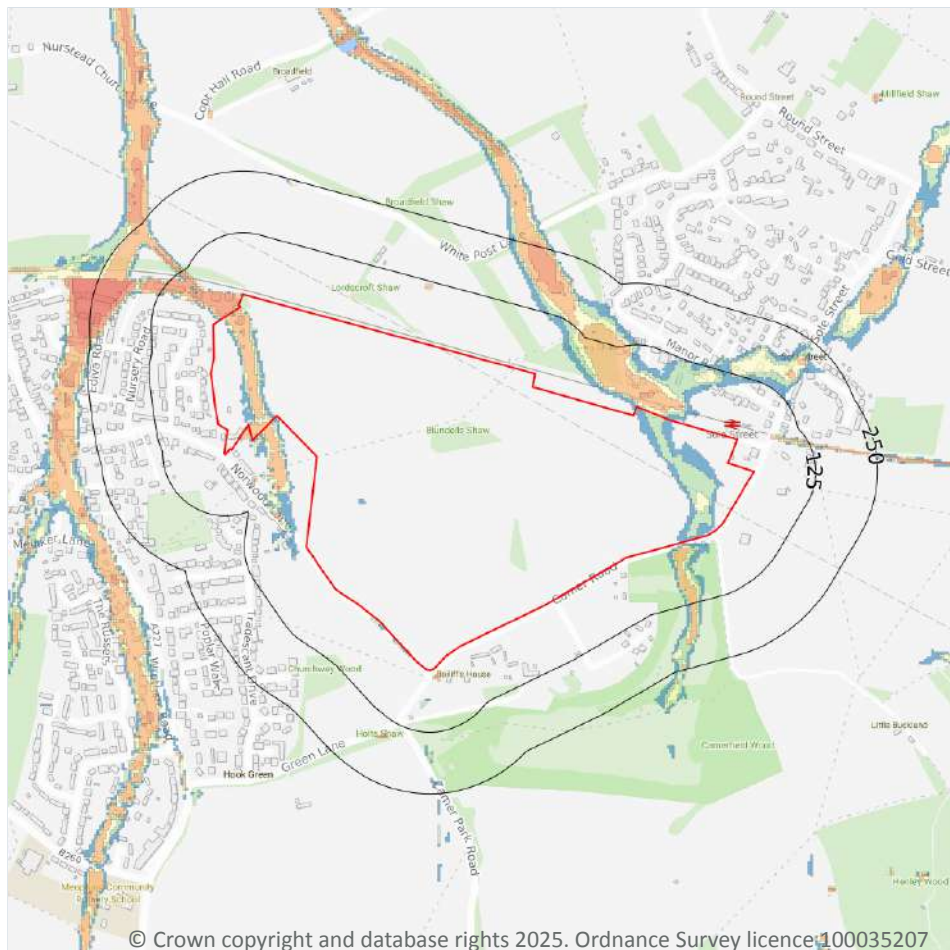
0

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



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

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 62 >](#)

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.

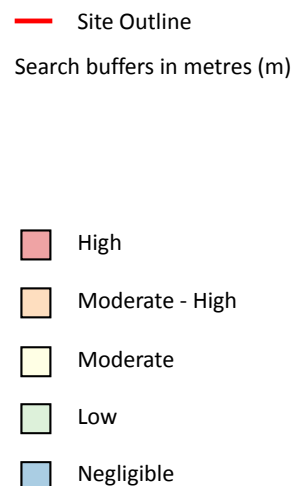
The table below shows the maximum flood depths for a range of return periods for the site.

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

Low

Highest risk within 50m

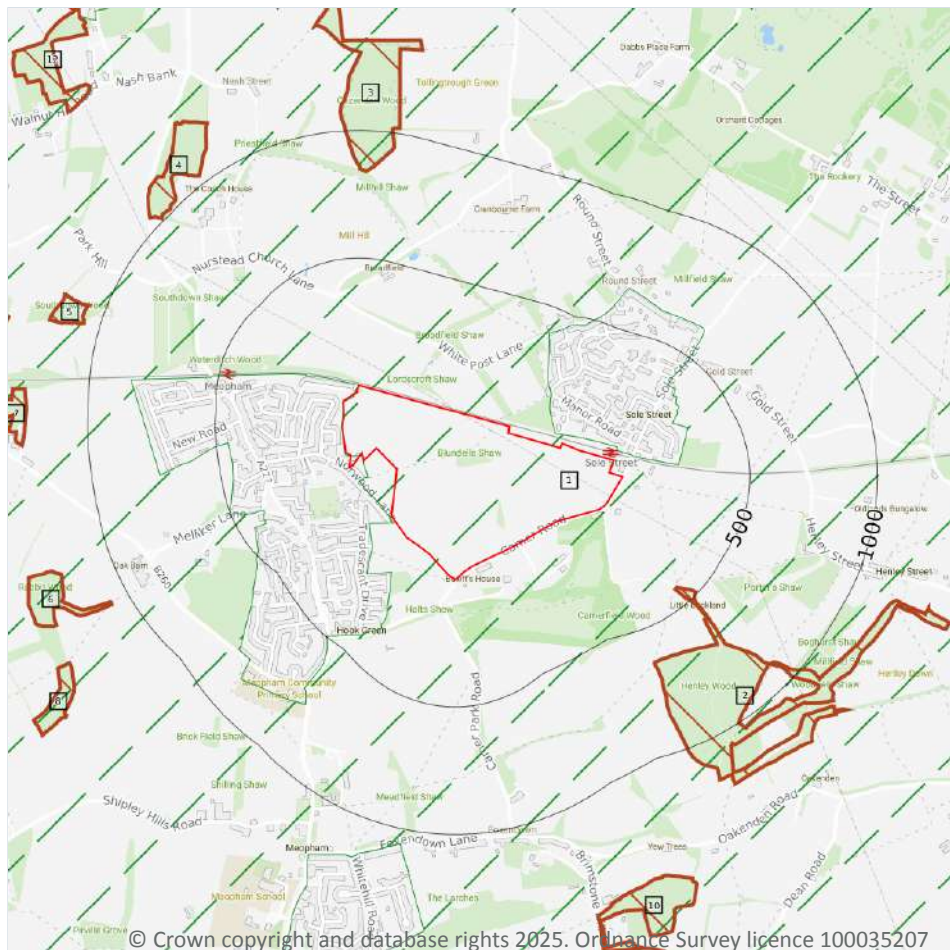
Low

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 64](#) >

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- + Special Areas of Conservation (SAC)
- Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

1

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.

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

ID	Location	Name	Data source
-	1992m NE	Shorne and Ashenbank Woods SSSI	Natural England



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

0

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.

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

10.7 Designated Ancient Woodland

Records within 2000m

20

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 65 >](#)

ID	Location	Name	Woodland Type
2	428m SE	Henley Wood	Ancient & Semi-Natural Woodland
3	841m N	Cozenden Wood	Ancient & Semi-Natural Woodland
4	1011m NW	Unknown	Ancient & Semi-Natural Woodland
5	1063m W	Unknown	Ancient & Semi-Natural Woodland
6	1074m SW	Rabbit Wood North	Ancient & Semi-Natural Woodland
7	1241m W	Unknown	Ancient & Semi-Natural Woodland
8	1338m SW	Rabbit Wood South	Ancient & Semi-Natural Woodland
9	1355m W	Unknown	Ancient & Semi-Natural Woodland
10	1405m SE	Brimstone Wood	Ancient & Semi-Natural Woodland
12	1560m NW	Walnut Wood	Ancient & Semi-Natural Woodland
13	1571m S	Brimstone Wood	Ancient & Semi-Natural Woodland
-	1587m S	Unknown	Ancient & Semi-Natural Woodland
-	1678m E	Cobhambury Wood	Ancient & Semi-Natural Woodland
-	1703m S	Unknown	Ancient & Semi-Natural Woodland
-	1783m NW	Unknown	Ancient & Semi-Natural Woodland
-	1791m S	Unknown	Ancient & Semi-Natural Woodland



ID	Location	Name	Woodland Type
-	1806m S	Unknown	Ancient & Semi-Natural Woodland
-	1911m S	Brimstone Wood	Ancient & Semi-Natural Woodland
-	1958m S	Unknown	Ancient & Semi-Natural Woodland
-	1992m NE	Unknown	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

3

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

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



ID	Location	Name	Local Authority name
1	On site	London Green Belt	Gravesham
-	1549m NW	London Green Belt	Dartford
-	1851m W	London Green Belt	Sevenoaks

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

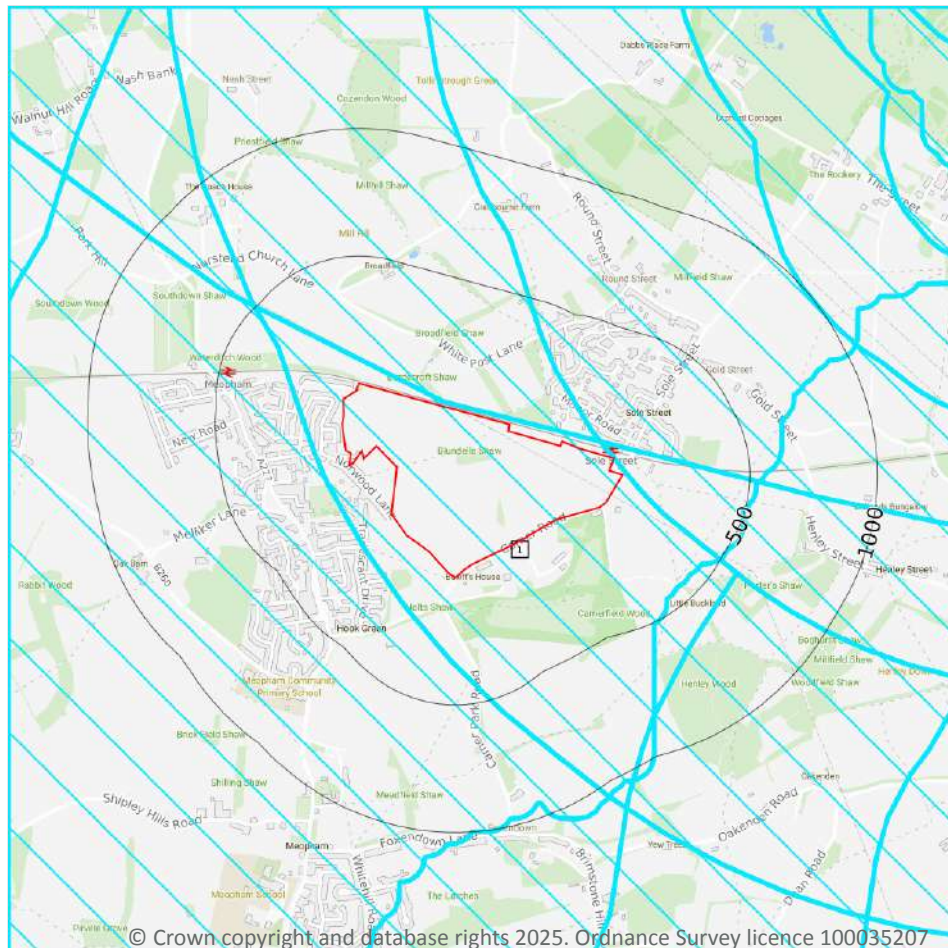
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	North Kent	Groundwater	65	Existing
434m W	North Kent	Groundwater	65	Existing
1115m S	North Kent	Groundwater	65	Existing
1416m SW	North Kent	Groundwater	65	Existing
1688m SW	North Kent	Groundwater	65	Existing
1765m NE	COASTAL STREAMS TO LOWER THAMES NVZ	Surface Water	665	Existing
1882m SW	North Kent	Groundwater	65	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 71](#) >

ID	Location	Type of developments requiring consultation
1	On site	https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0301000430050&notes=&location=565295,167200%20(IRZ%20polygon%20centre)

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

1

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.

Features are displayed on the SSSI Impact Zones and Units map on [page 71](#) >

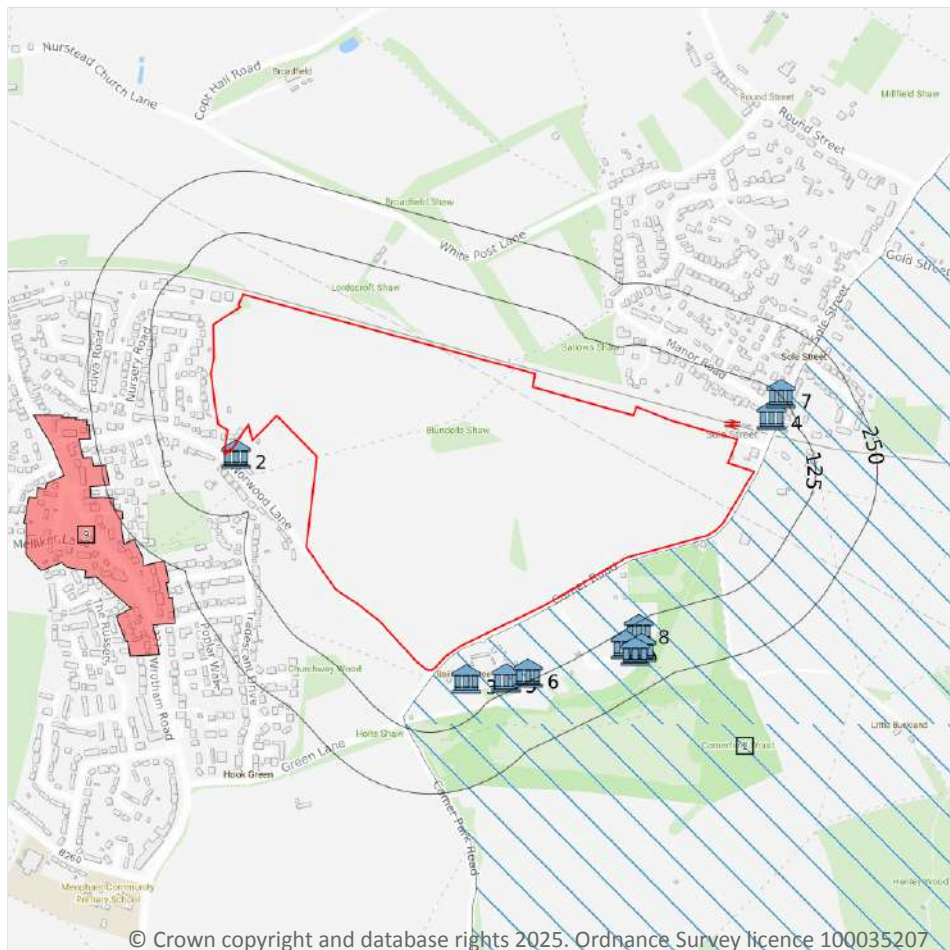
ID: -
Location: 1992m NE
SSSI name: Shorne and Ashenbank Woods
Unit name: Ashenbank Wood - South
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - No change
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Unfavourable - No change	01/10/2010

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



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

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

1

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.

Features are displayed on the Visual and cultural designations map on [page 73 >](#)

ID	Location	NAME	Data Source
1	6m SE	Kent Downs	Natural England

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

10

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.

Features are displayed on the Visual and cultural designations map on [page 73 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
2	13m SE	Norwood Farmhouse	II	1039912	05/08/1982
3	61m SE	Bailiffs House	II	1052333	26/07/1983



ID	Location	Name	Grade	Reference Number	Listed date
4	86m NE	Bower Cottage	II	1096313	26/07/1983
5	97m SE	Building Approximately 30 Metres To West Of Camer House	II	1350234	26/07/1983
6	109m SE	Camer House	II	1052357	21/11/1966
7	129m NE	Yeomans House	II	1095063	21/11/1966
8	137m SE	Camer Green Cottage	II	1372283	26/07/1983
A	151m SE	5 And 6, Camer Street	II	1096344	26/07/1983
A	172m SE	9 And 10, Camer Street	II	1096345	26/07/1983
A	172m SE	Somers	II	1350235	21/11/1966

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

11.5 Conservation Areas

Records within 250m

1

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.

Features are displayed on the Visual and cultural designations map on [page 73](#) >

ID	Location	Name	District	Date of designation
9	238m SW	Hook Green, Meopham	Gravesham	24/06/1970

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

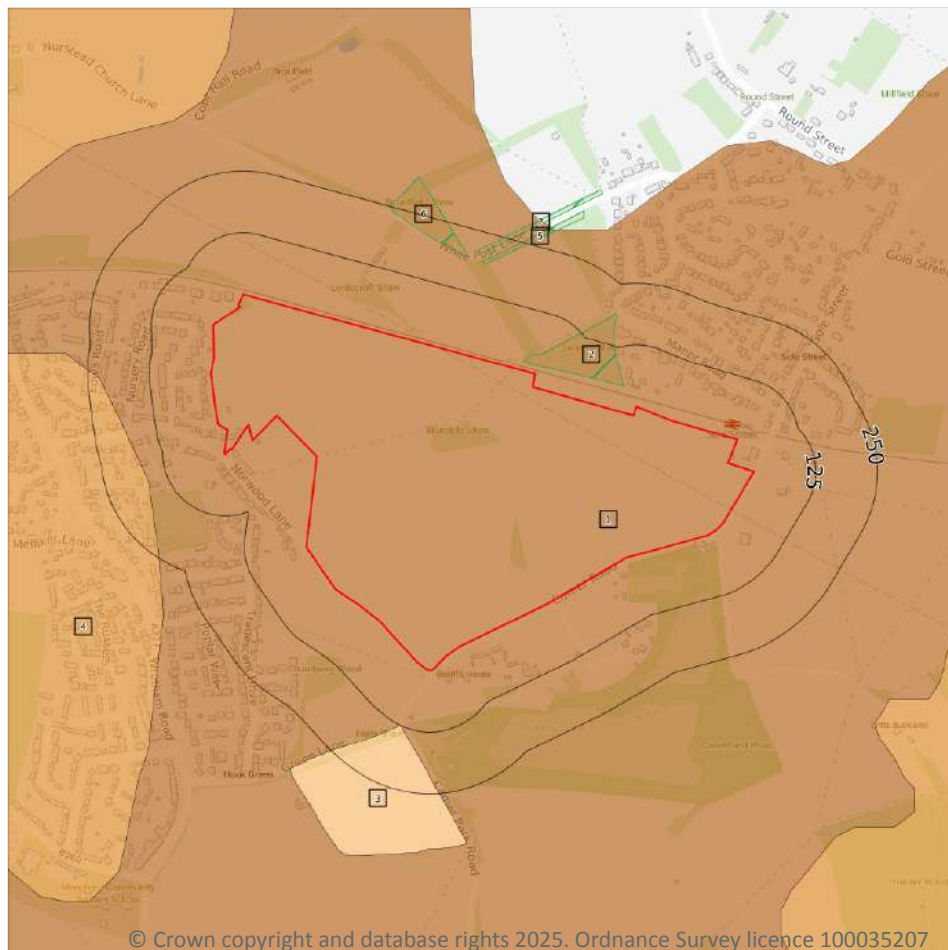
0

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

3

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 77](#) >

ID	Location	Classification	Description
1	On site	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.
3	125m SW	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
4	164m W	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.

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

4

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.

Features are displayed on the Agricultural designations map on [page 77](#) >

ID	Location	Description	Reference	Application date
2	17m N	Clear Fell (Conditional)	019/152/03-04	16/12/2003
5	188m N	Clear Fell (Conditional)	019/210/03-04	23/02/2004
6	193m N	Clear Fell (Conditional)	019/210/03-04	23/02/2004
7	205m N	Clear Fell (Conditional)	019/210/03-04	23/02/2004



This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

1

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.

Location	Reference	Scheme	Start Date	End date
7m SE	AG00405767	Entry Level plus Higher Level Stewardship	01/08/2012	31/07/2023

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

2

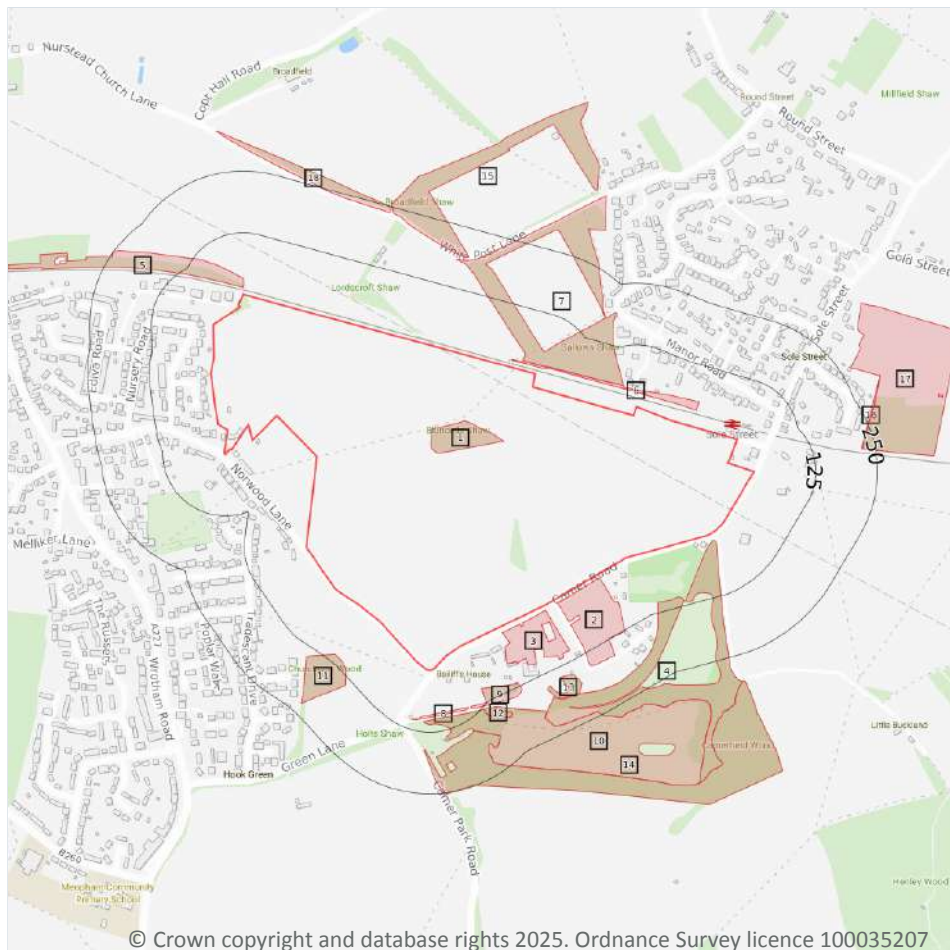
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
On site	1458249	Countryside Stewardship (Middle Tier)	01/01/2023	31/12/2027
248m S	1458249	Countryside Stewardship (Middle Tier)	01/01/2023	31/12/2027

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

18

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 80](#) >

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	7m SE	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
3	10m SE	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
4	14m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
5	14m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	15m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	19m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	88m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	95m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	99m S	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)
11	109m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
12	130m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
13	145m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
14	148m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
15	191m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
16	224m E	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
17	225m E	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
18	238m 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

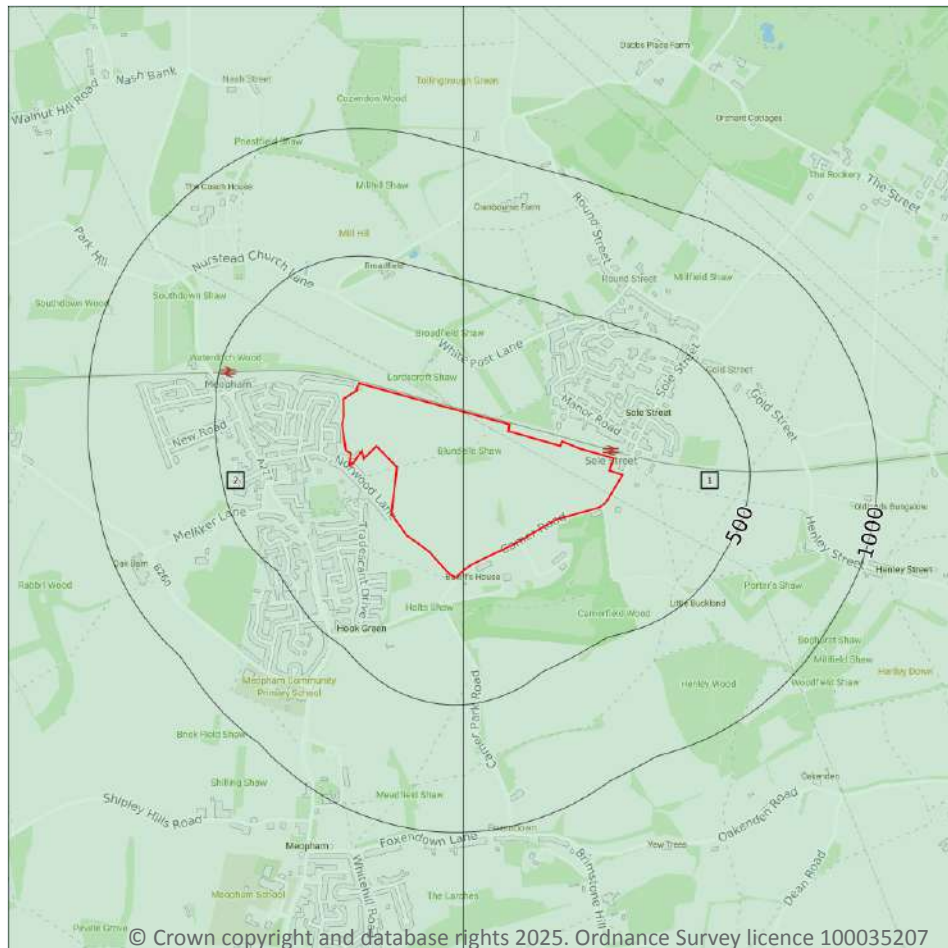
0

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.

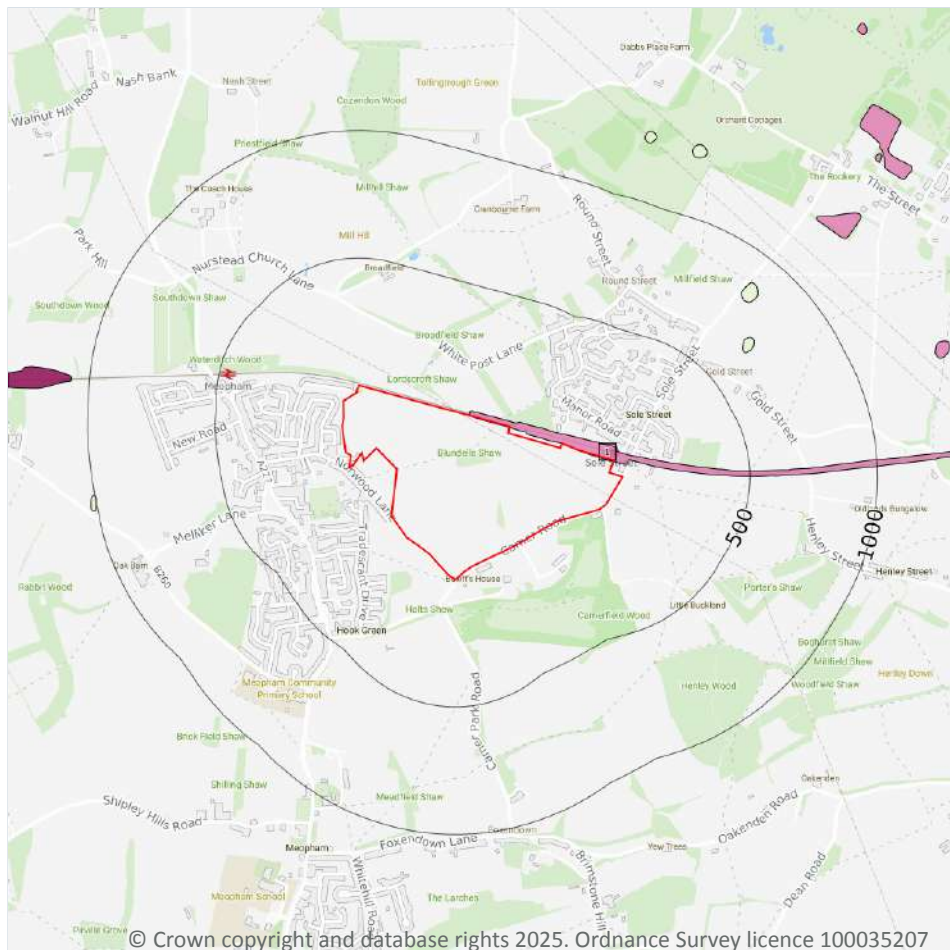
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 83](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	TQ66NE
2	On site	Full	Full	Full	No coverage	TQ66NW

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

1

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.

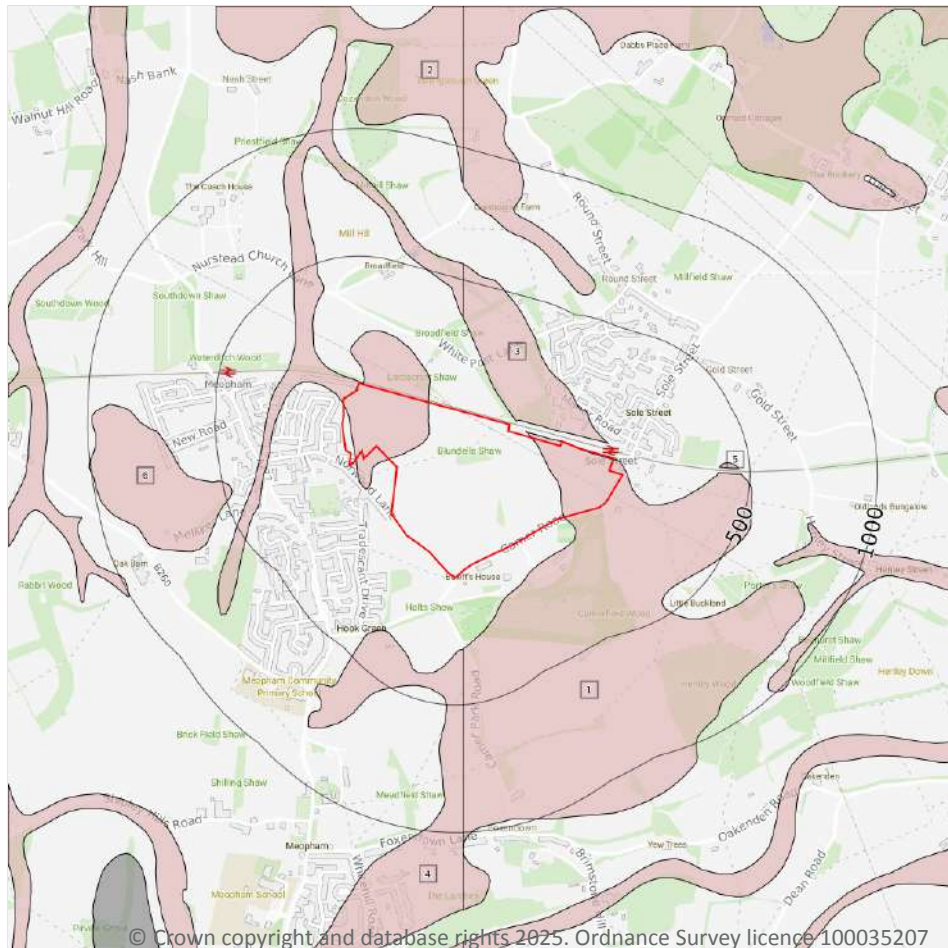
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 84](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	WGR-UNKNOWN	Worked Ground (Undivided)	Unknown/unclassified Entry

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

6

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 85 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	HEAD-DMTN	Head - Diamicton	Diamicton
2	On site	HEAD-XSC	Head - Sand And Clay	Sand And Clay
3	28m NE	HEAD-DMTN	Head - Diamicton	Diamicton



ID	Location	LEX Code	Description	Rock description
4	284m S	HEAD-XSC	Head - Sand And Clay	Sand And Clay
5	384m E	HEAD-DMTN	Head - Diamicton	Diamicton
6	469m W	HEAD-XSC	Head - Sand And Clay	Sand And Clay

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

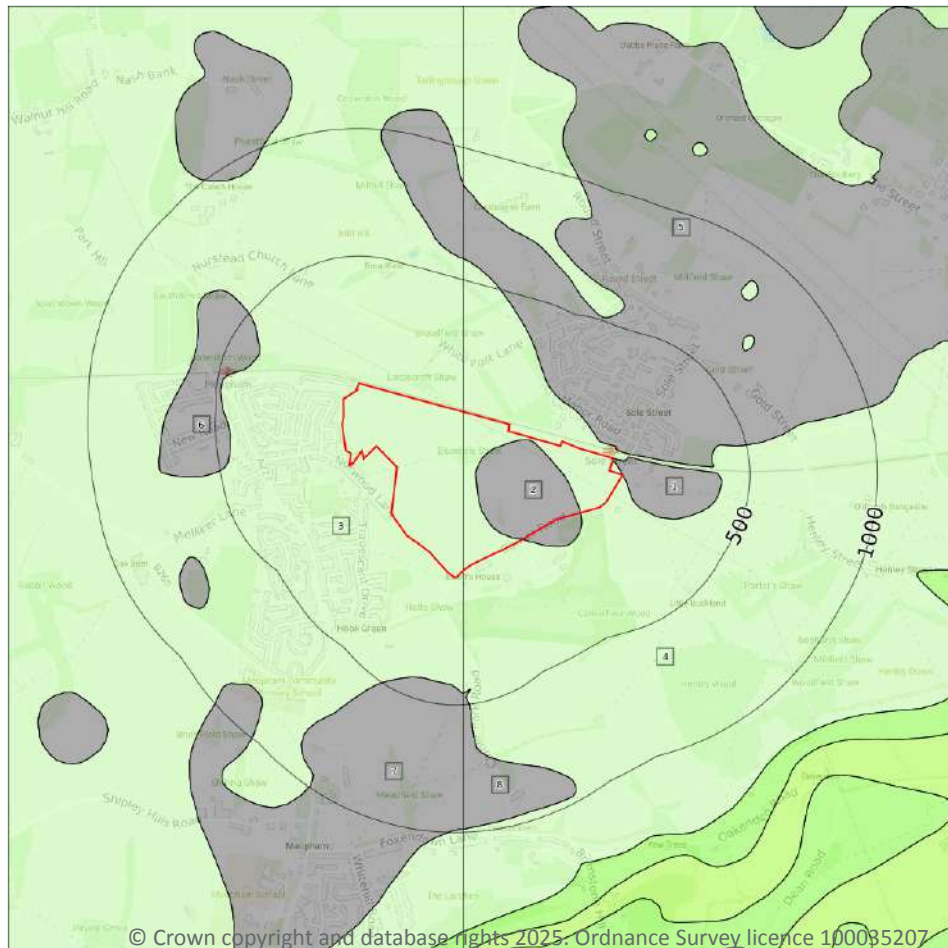
0

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

8

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 87](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	TAB-SANDU	Thanet Sand Formation - Sand	Thanetian Age
2	On site	TAB-SANDU	Thanet Sand Formation - Sand	Thanetian Age
3	On site	SECK-CHLK	Seaford Chalk Formation - Chalk	Santonian Age - Coniacian Age
4	On site	SECK-CHLK	Seaford Chalk Formation - Chalk	Santonian Age - Coniacian Age



ID	Location	LEX Code	Description	Rock age
5	35m NE	TAB-SANDU	Thanet Sand Formation - Sand	Thanetian Age
6	375m NW	TAB-SANDU	Thanet Sand Formation - Sand	Thanetian Age
7	413m S	TAB-SANDU	Thanet Sand Formation - Sand	Thanetian Age
8	442m S	TAB-SANDU	Thanet Sand Formation - Sand	Thanetian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

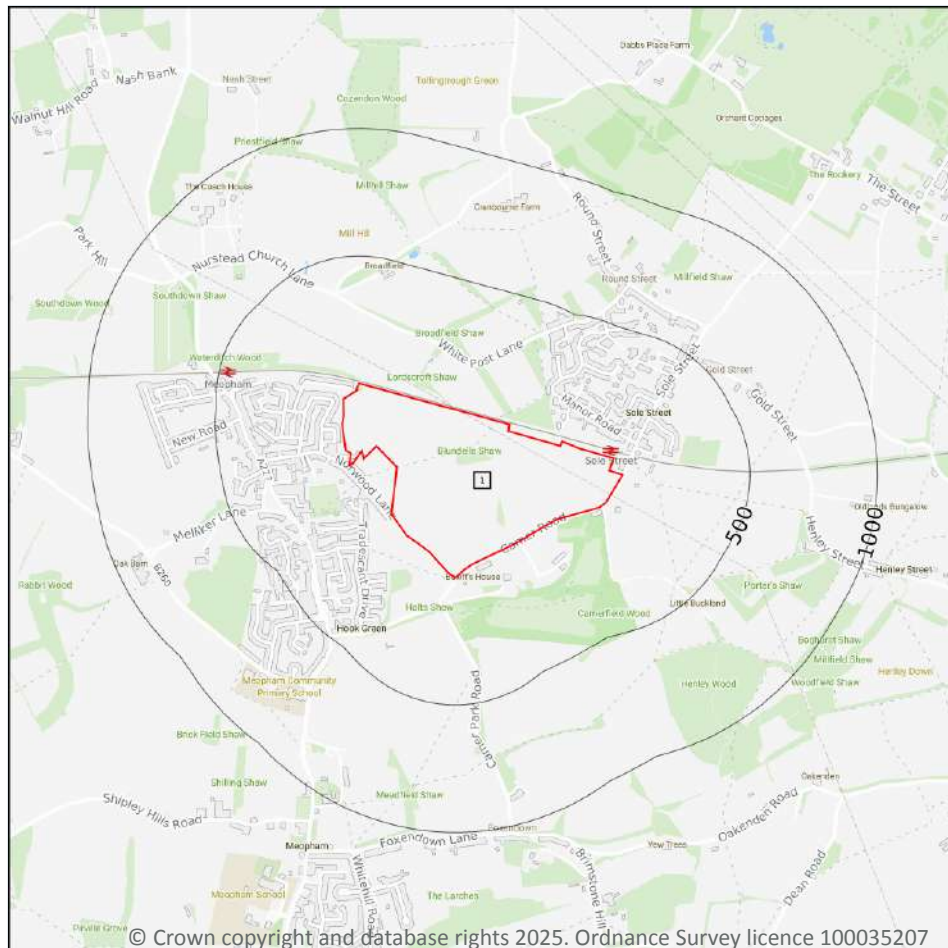
0

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.

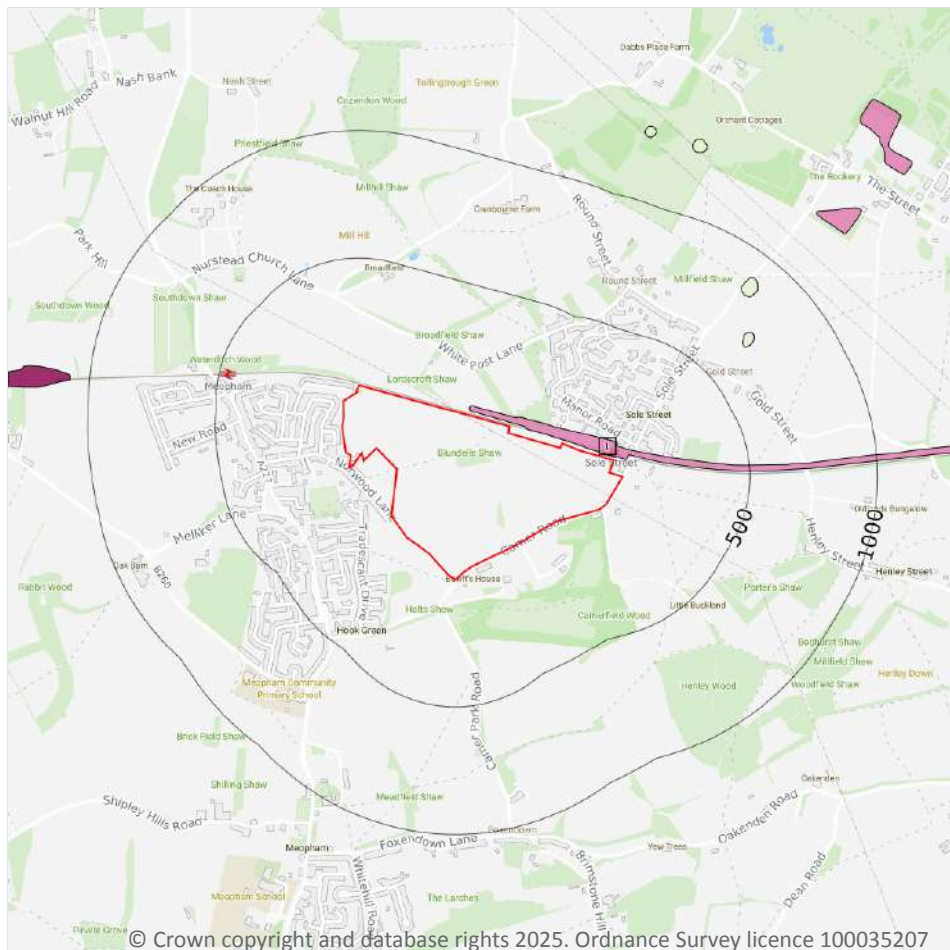
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 89](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW271_dartford_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

1

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 90](#) >

ID	Location	LEX Code	Description	Rock description
1	14m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

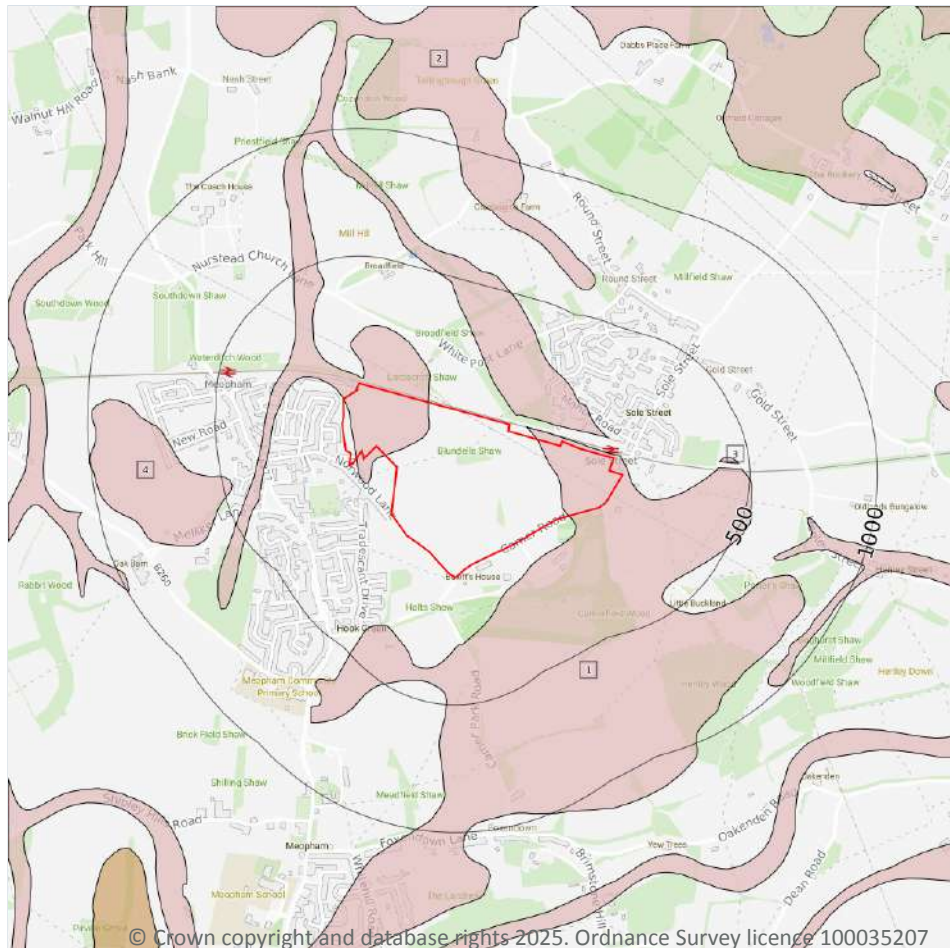
0

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

4

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 92](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
2	On site	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
3	386m E	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
4	465m W	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial 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 any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Very Low
44m NE	Mixed	High	Very Low

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)

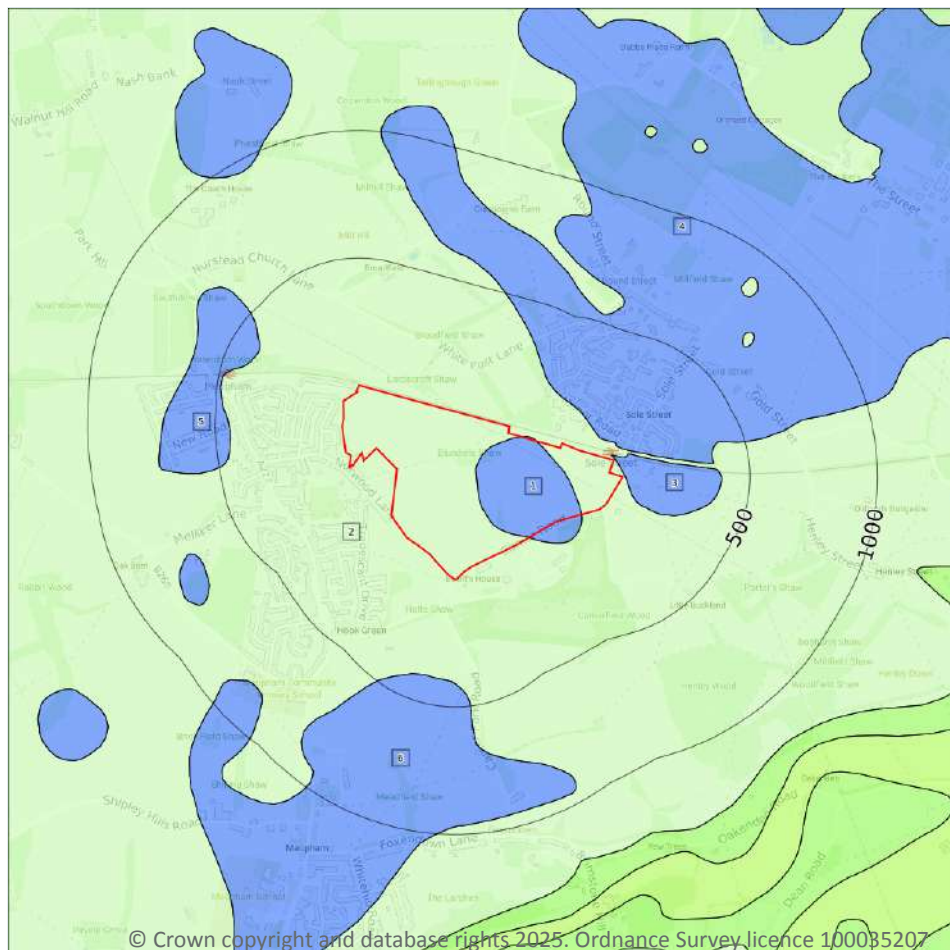
Records within 50m

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

6

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 94](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	TAB-S	THANET FORMATION - SAND	THANETIAN
2	On site	LSNCK-CHLK	LEWES NODULAR CHALK FORMATION, SEAFORD CHALK FORMATION AND NEWHAVEN CHALK FORMATION (UNDIFFERENTIATED) - CHALK	TURONIAN
3	6m NE	TAB-S	THANET FORMATION - SAND	THANETIAN



ID	Location	LEX Code	Description	Rock age
4	55m N	TAB-S	THANET FORMATION - SAND	THANETIAN
5	385m NW	TAB-S	THANET FORMATION - SAND	THANETIAN
6	393m S	TAB-S	THANET FORMATION - SAND	THANETIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock 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 bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Very High	Very High
On site	Intergranular	High	High
6m NE	Intergranular	High	High

This data is sourced from the British Geological Survey.

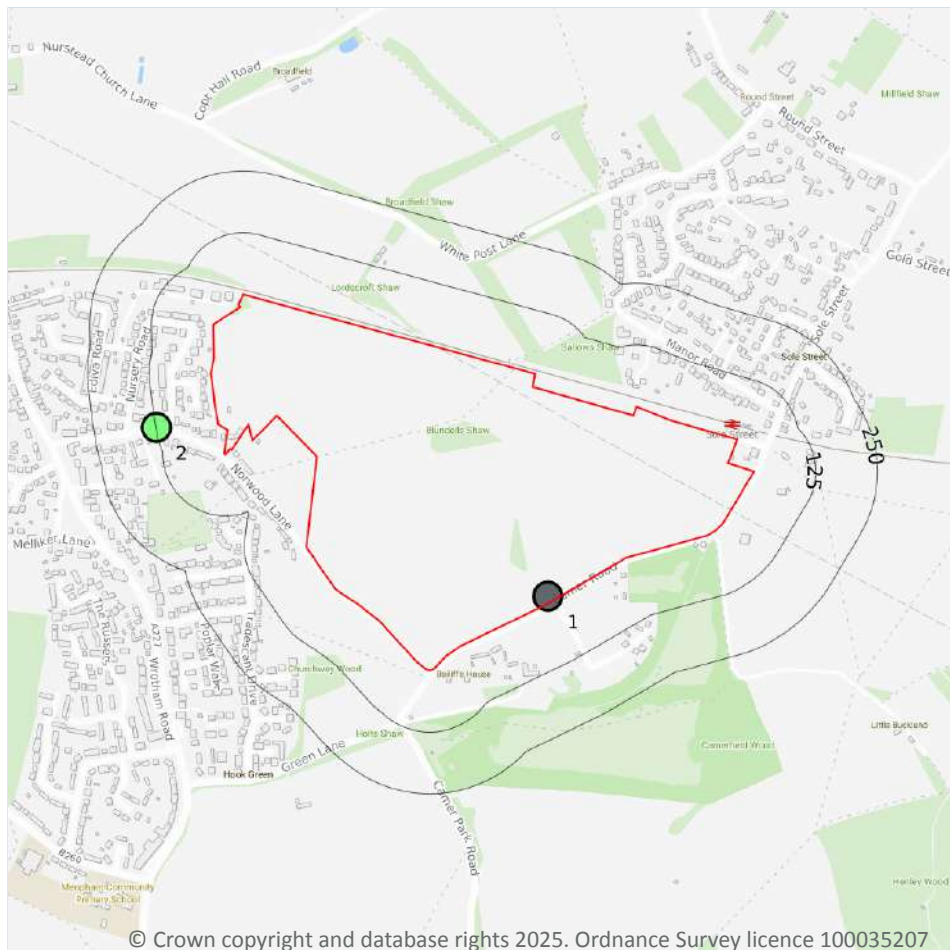
15.10 Bedrock faults and other linear features (50k)

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



— Site Outline
Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m

2

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.

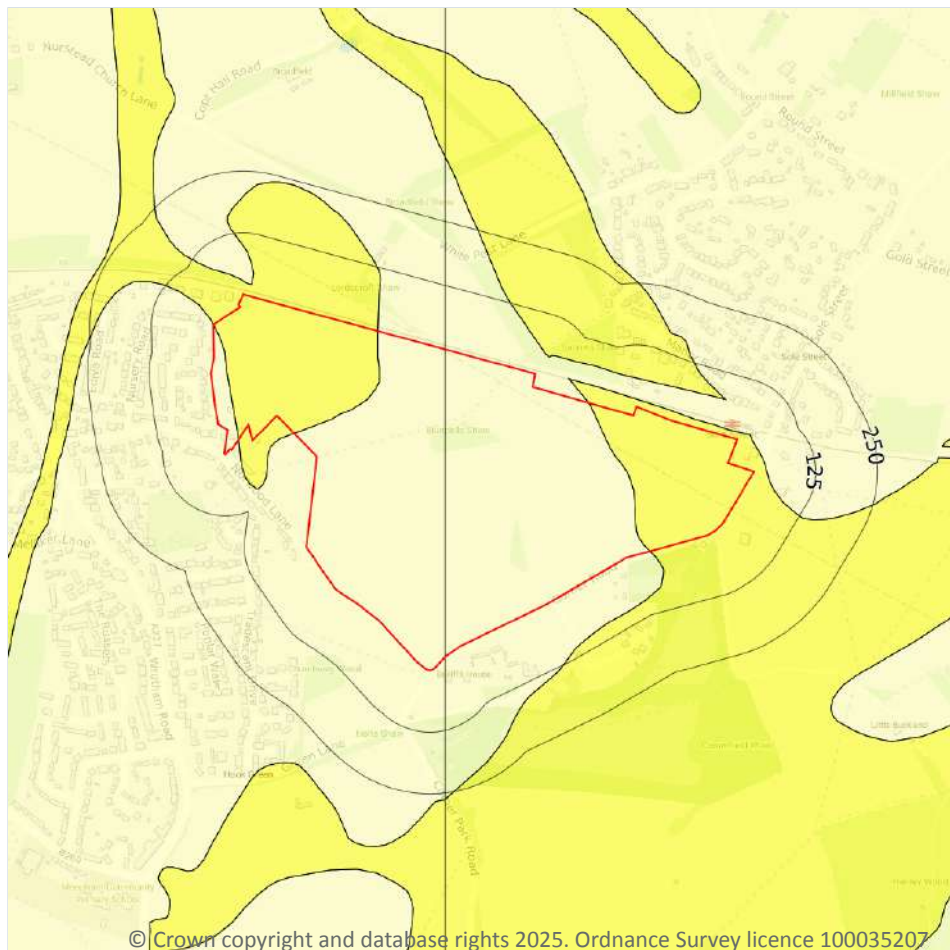
Features are displayed on the Boreholes map on [page 96](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	565209 167248	CHANNEL TUNNEL LINK B4	-	Y	N/A
2	124m W	564416 167590	NORWOOD COT. MEOPHAM STATION 1	10.6	N	643563 ↗

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 97 >](#)

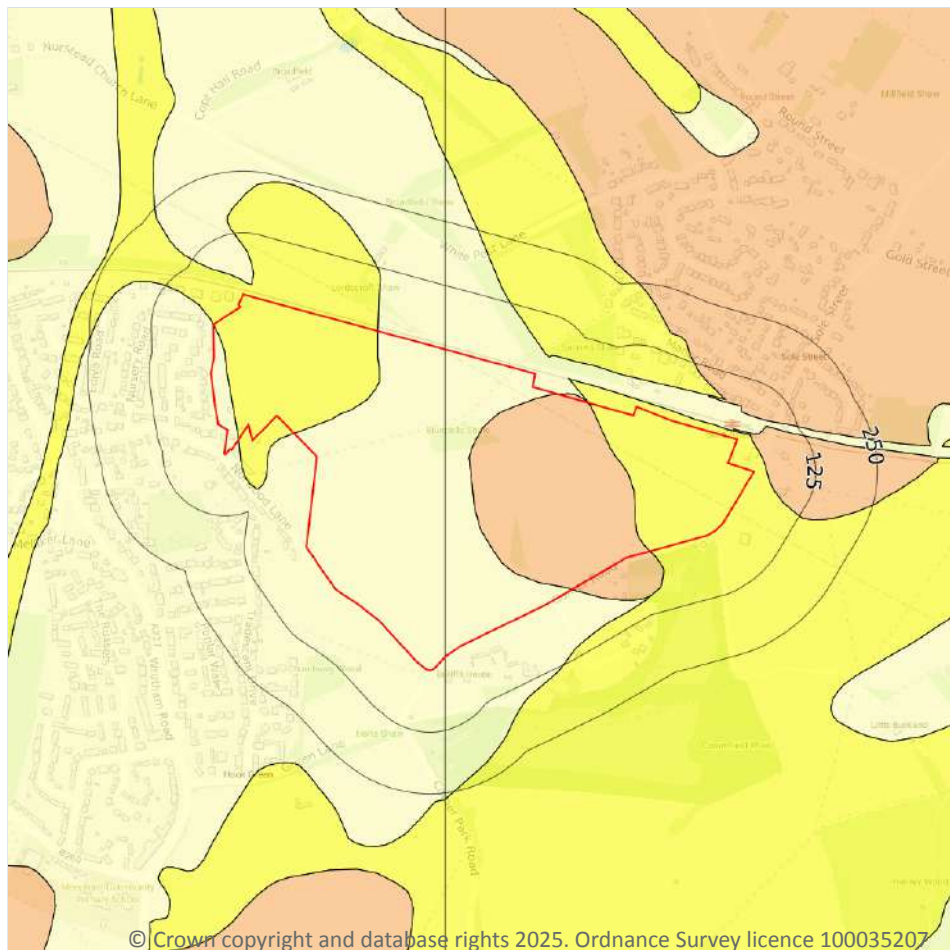
Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.
44m NE	Very low	Ground conditions predominantly low plasticity.



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

5

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 99](#) >

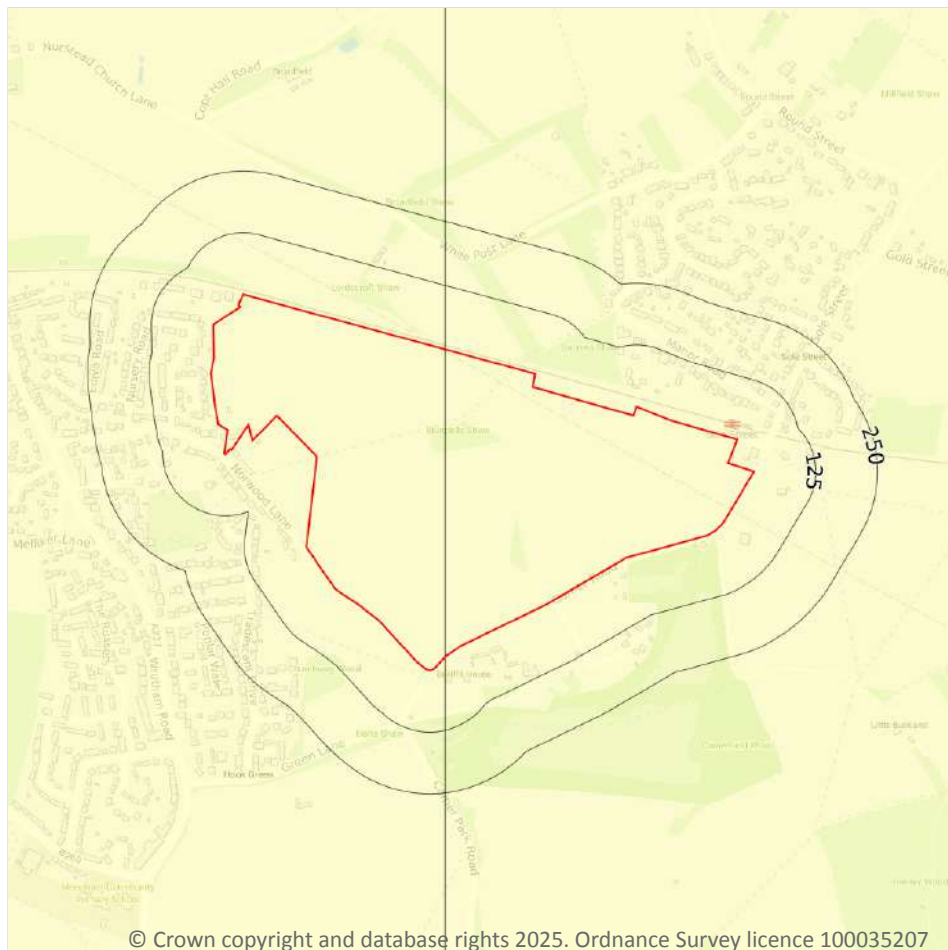
Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

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.
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
15m N	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
44m NE	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.

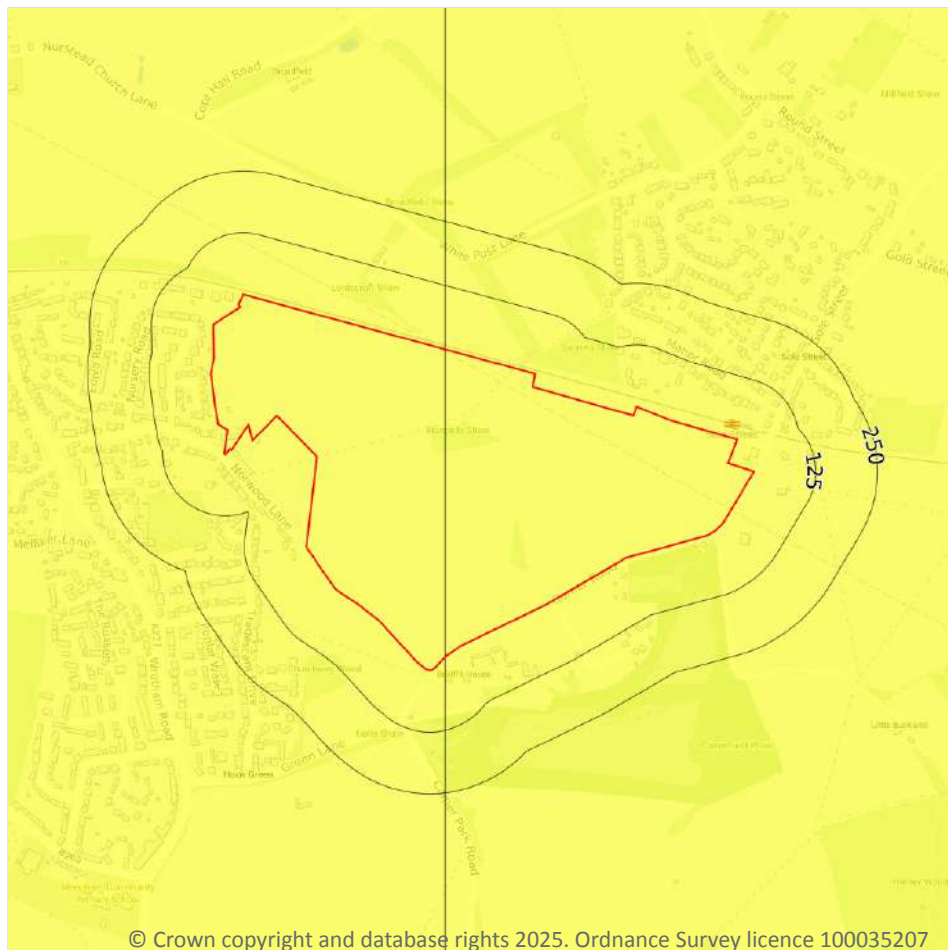
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 101](#) >

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.

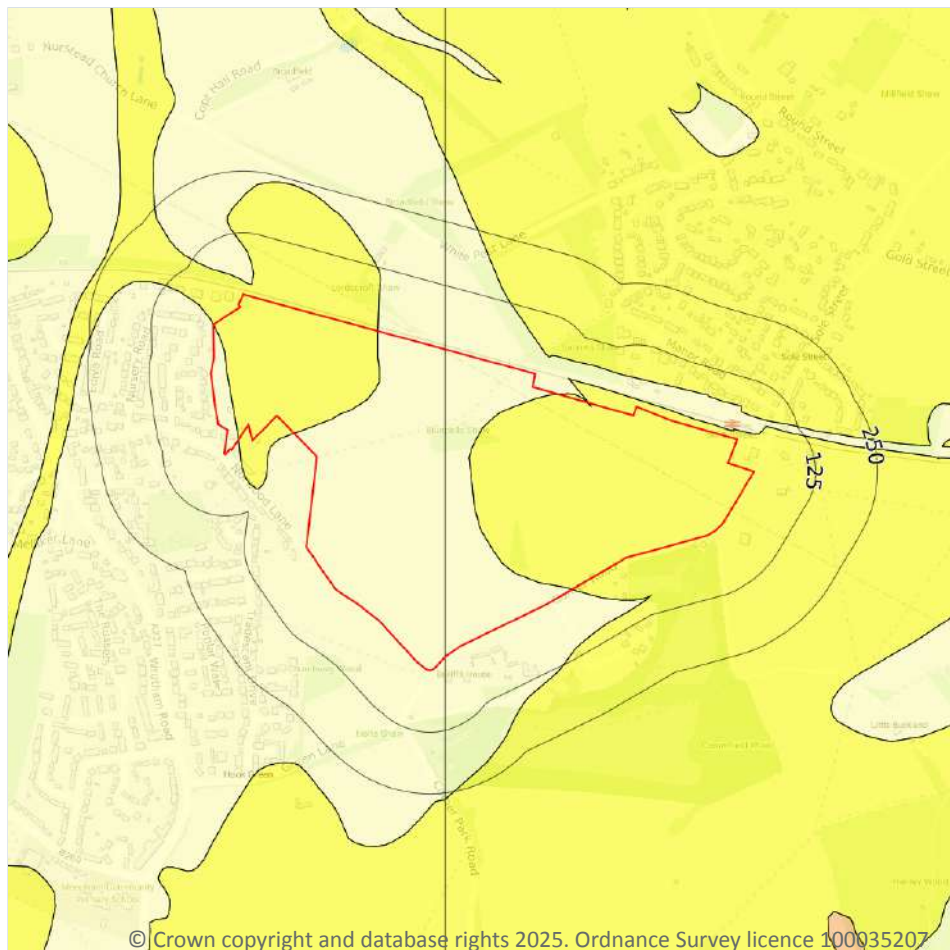
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 102 >](#)

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



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

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 103](#) >

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.

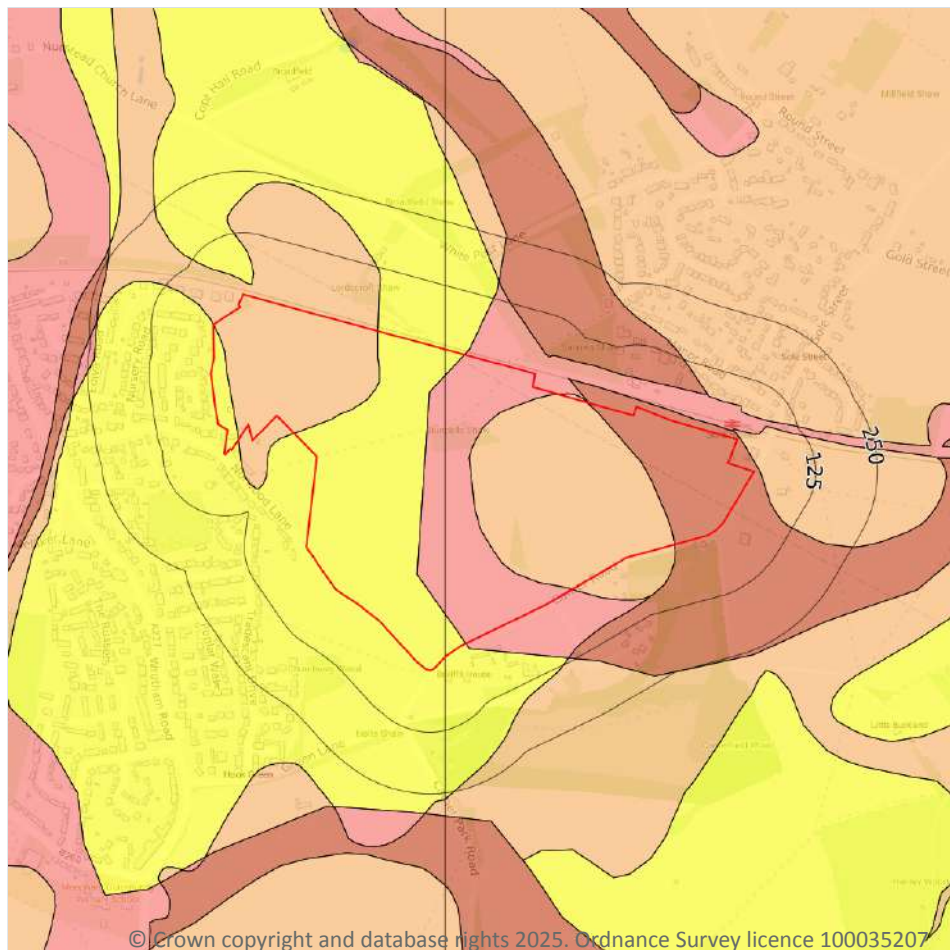


Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.
44m NE	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

6

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 105 >](#)

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.

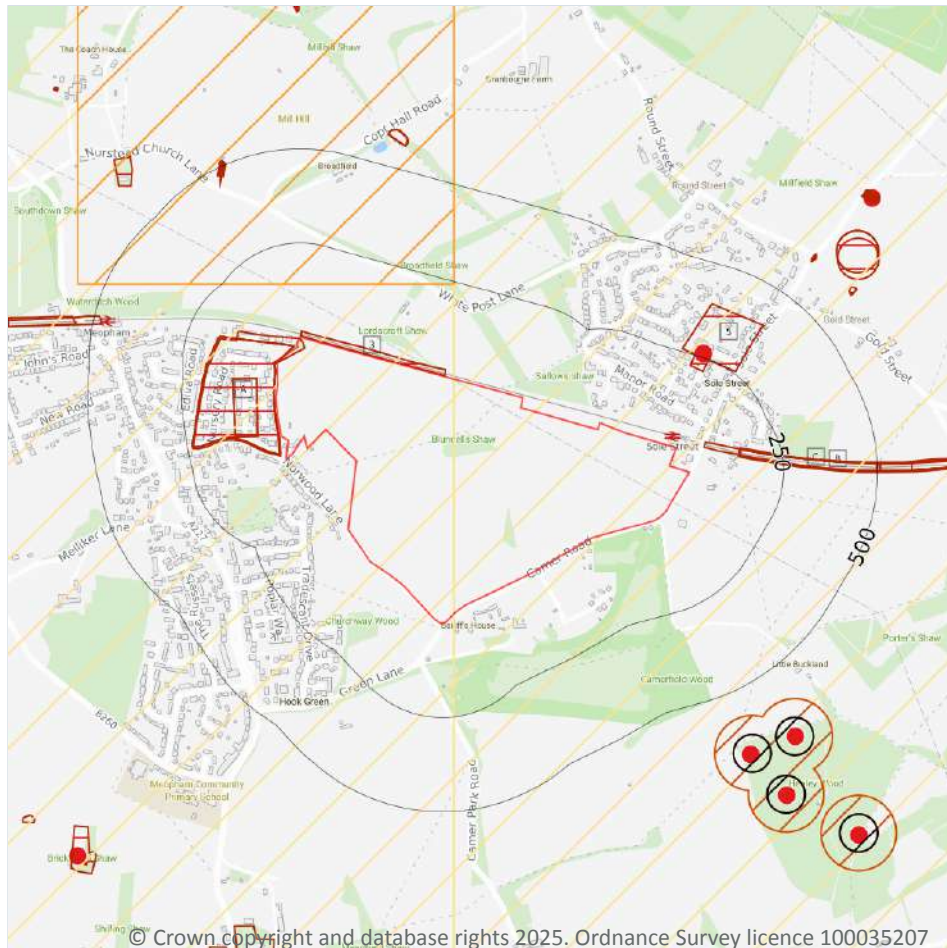


Location	Hazard rating	Details
On site	Low	Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.
On 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.
6m NE	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.
44m NE	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



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18.1 BritPits

Records within 500m

1

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 107](#) >

ID	Location	Details	Description
6	260m N	Name: Sole Street Brick Field Address: Sole Street, GRAVESEND, Kent 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.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	14
----------------------------	-----------

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 107 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Refuse Depot	1939	1:10560
A	On site	Refuse Depot	1931	1:10560
A	On site	Refuse Depot	1907	1:10560
A	On site	Refuse Depot	1895	1:10560
3	2m N	Cuttings	1867	1:10560
A	50m W	Refuse Depot	1938	1:10560
A	50m W	Refuse Depot	1938	1:10560
B	73m E	Cuttings	1867	1:10560
B	136m E	Cuttings	1955	1:10560
B	138m E	Cuttings	1907	1:10560
C	139m E	Cuttings	1939	1:10560
C	139m E	Cuttings	1931	1:10560
C	139m E	Cuttings	1907	1:10560
5	215m N	Brick Field	1867	1:10560



This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m

0

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

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

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

9

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 107 >](#)

ID	Location	Name	Commodity	Class	Likelihood
1	On site	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.



ID	Location	Name	Commodity	Class	Likelihood
2	On site	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.
4	141m N	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	571m SE	Henley Wood	Chalk	D	Underground mining is considered likely to have occurred within or close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
I	621m SE	Henley Wood	Chalk	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
J	634m SE	Henley Wood	Chalk	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
L	757m SE	Henley Wood	Chalk	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
O	892m SE	Henley Wood	Chalk	D	Underground mining is considered likely to have occurred within or close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
O	942m SE	Henley Wood	Chalk	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. 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	0
------------------------	----------

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

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**0**

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.

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
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

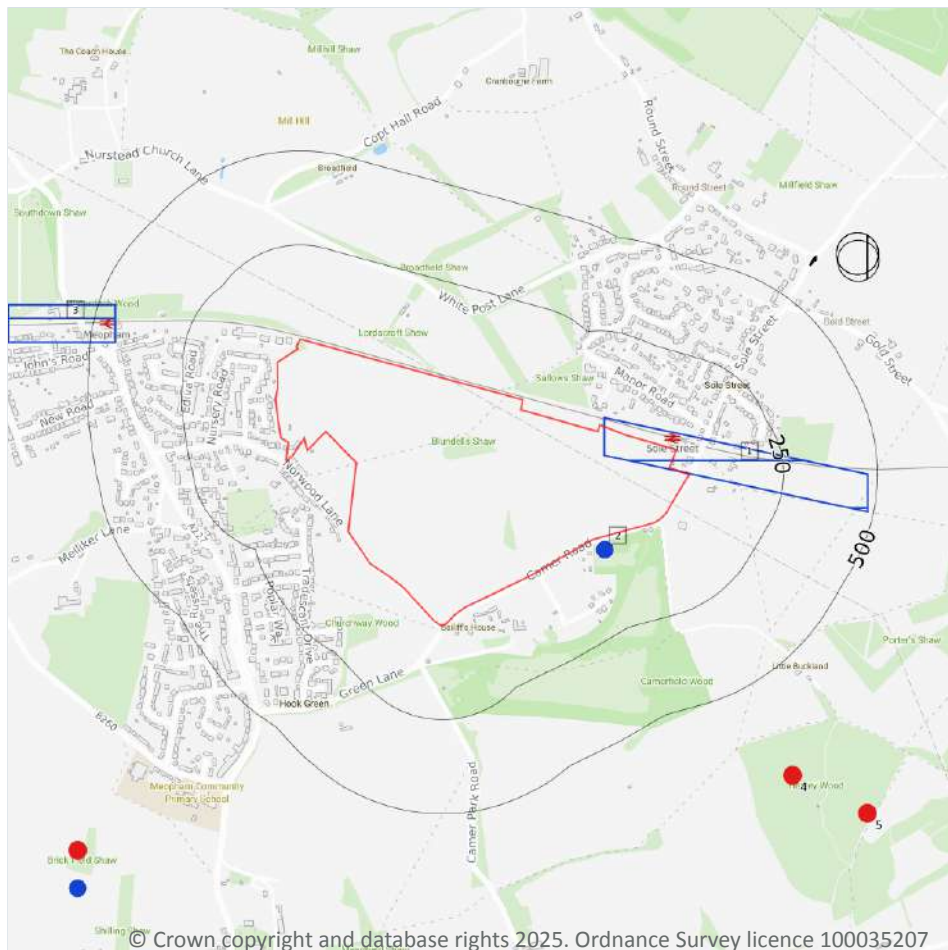
18.16 Clay mining

Records on site	0
-----------------	---

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



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19.1 Natural cavities

Records within 500m

3

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.

Features are displayed on the Ground cavities and sinkholes map on [page 113](#) >

ID	Location	Details
1	On site	Type: Solution Pipe x 10 Superficial Geology: Head, Worked Ground Bedrock Geology: Chalk Group, Thanet Sand Formation

ID	Location	Details
2	33m S	Type: Solution Pipe x 3 Superficial Geology: Head Bedrock Geology: Chalk Group, Thanet Sand Formation
3	434m W	Type: Solution Pipe x 6 Superficial Geology: - Bedrock Geology: Chalk Group, Thanet Sand Formation

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

2

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.

Features are displayed on the Ground cavities and sinkholes map on [page 113 >](#)

ID	Location	Mine Address	Mineral
4	765m SE	Luddesdown, Kent	Chalk
5	956m SE	Luddesdown, Kent	Chalk

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

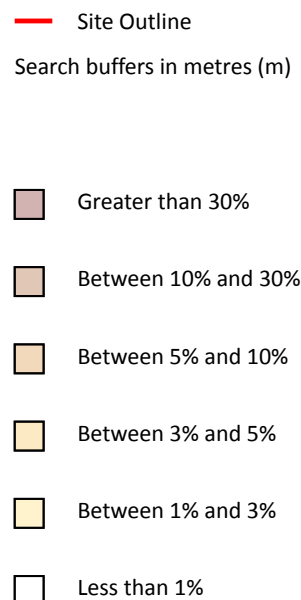
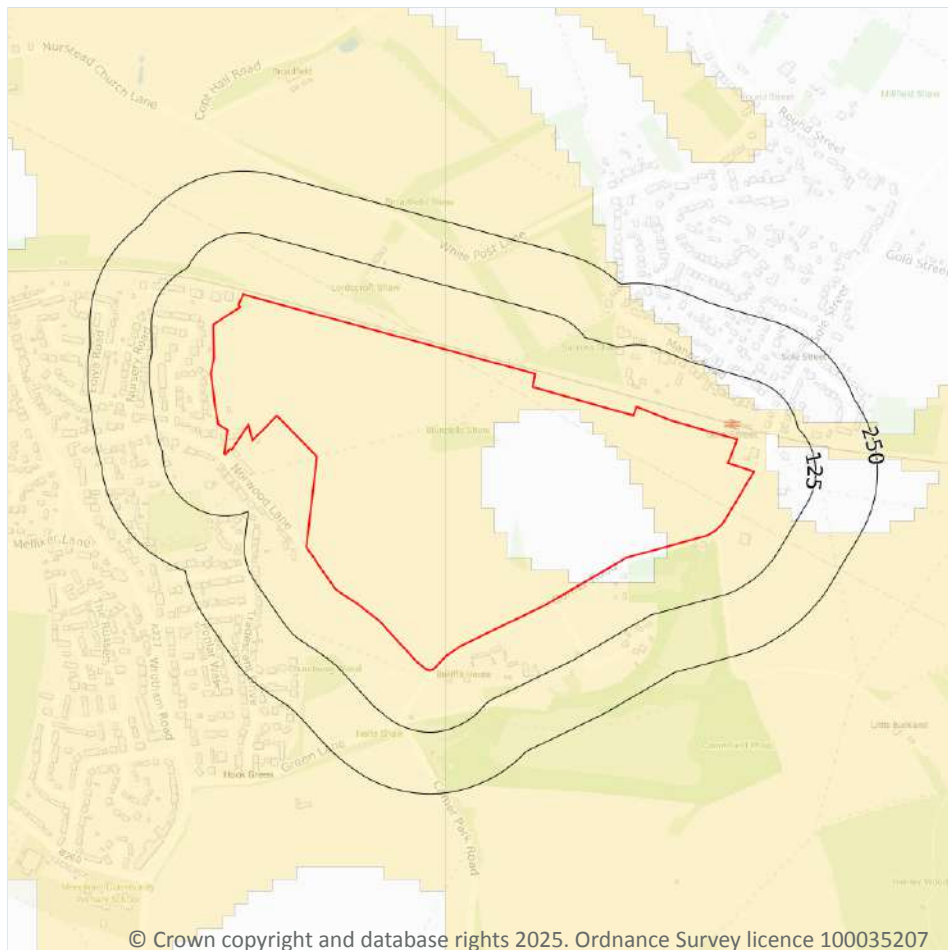
0

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 116 >](#)

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



Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	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

24

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 - 200 mg/kg	60 - 120 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 - 200 mg/kg	60 - 120 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 - 200 mg/kg	60 - 120 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 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg



Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 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 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
6m NE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
12m E	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
14m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
15m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
24m N	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
26m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
26m E	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
44m NE	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 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

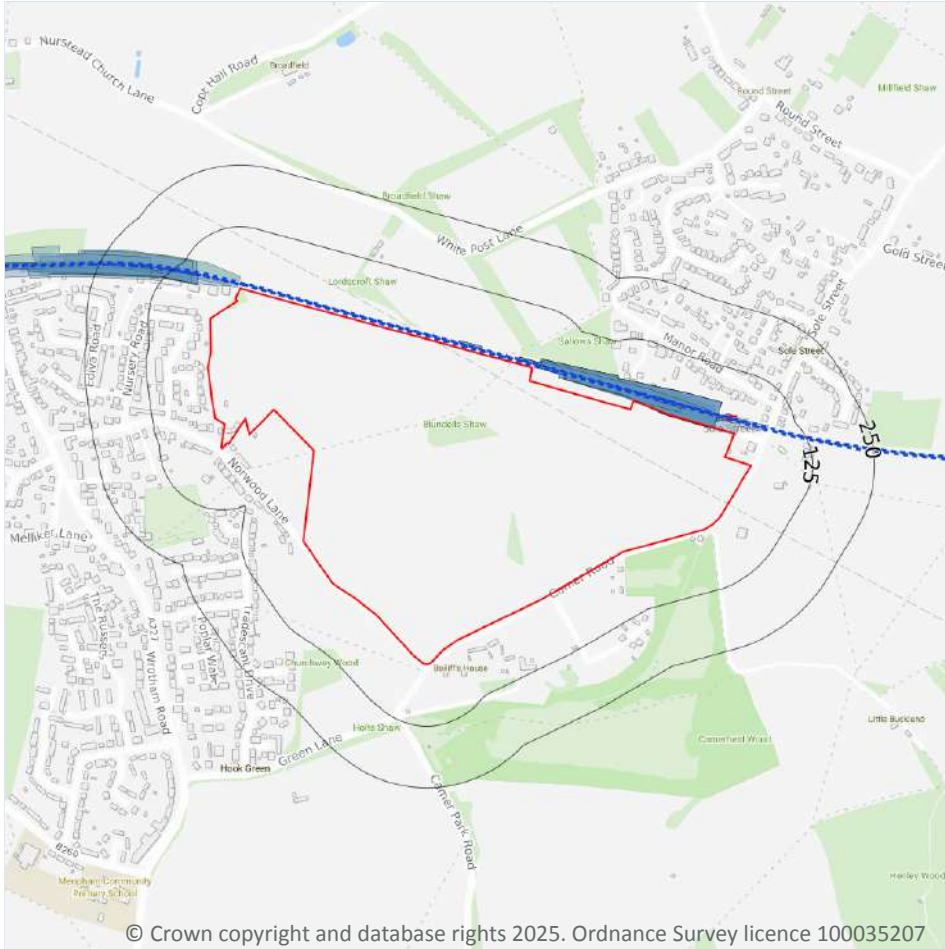
0

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



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- 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

0

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

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

39

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 121](#) >

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1939	10560
On site	Railway Sidings	1907	10560
On site	Railway Sidings	1895	10560
On site	Railway Sidings	1867	10560
On site	Railway Sidings	1977	10000
On site	Railway Sidings	1966	10560
On site	Railway Sidings	1955	10560
1m N	Railway Sidings	1907	10560
4m N	Railway Sidings	1908	2500
4m N	Railway Sidings	1936	2500
4m N	Railway Sidings	1939	2500
4m N	Railway Sidings	1896	2500
7m NW	Railway Sidings	1965	10560
7m N	Railway Sidings	1975	2500
7m N	Railway Sidings	1960	2500
8m N	Railway Sidings	1896	2500
8m N	Railway Sidings	1908	2500



Location	Land Use	Year of mapping	Mapping scale
8m N	Railway Sidings	1936	2500
8m N	Railway Sidings	1939	2500
11m N	Railway Sidings	1975	2500
11m N	Railway Sidings	1960	2500
21m NW	Railway Sidings	1960	2500
23m N	Railway Sidings	1960	2500
26m N	Railway Sidings	1975	2500
71m NW	Railway Sidings	1938	10560
73m NW	Railway Sidings	1939	10560
73m NW	Railway Sidings	1931	10560
73m NW	Railway Sidings	1907	10560
82m NW	Railway Sidings	1955	10560
89m NW	Railway Sidings	1908	2500
89m NW	Railway Sidings	1939	2500
102m NW	Railway Sidings	1896	2500
102m NW	Railway Sidings	1960	2500
124m NW	Railway Sidings	1895	10560
149m NW	Railway Sidings	1867	10560
160m NW	Railway Sidings	1908	2500
160m NW	Railway Sidings	1939	2500
164m NW	Railway Sidings	1896	2500
173m NW	Railway Sidings	1960	2500

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

17

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 121 >](#)

Location	Name	Type
4m N	Chatham Main Line	rail
7m N	Not given	Multi Track
7m N	Not given	Multi Track
7m N	Not given	Multi Track
9m N	Not given	Multi Track
9m N	Chatham Main Line	rail
18m N	Chatham Main Line	rail
18m N	Not given	Multi Track
26m N	Not given	Multi Track
41m NE	Not given	Multi Track
78m E	Not given	Multi Track
96m NW	Not given	Multi Track
139m NW	Not given	Multi Track
167m NW	Not given	Multi Track
189m NW	Not given	Multi Track
216m NW	Chatham Main Line	rail



Location	Name	Type
217m NW	Not given	Multi Track

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.



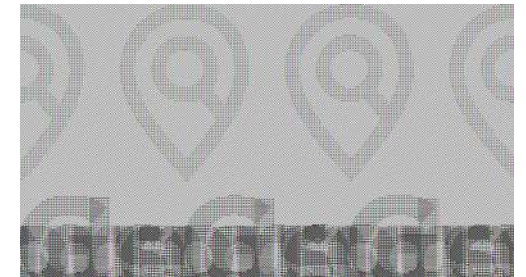
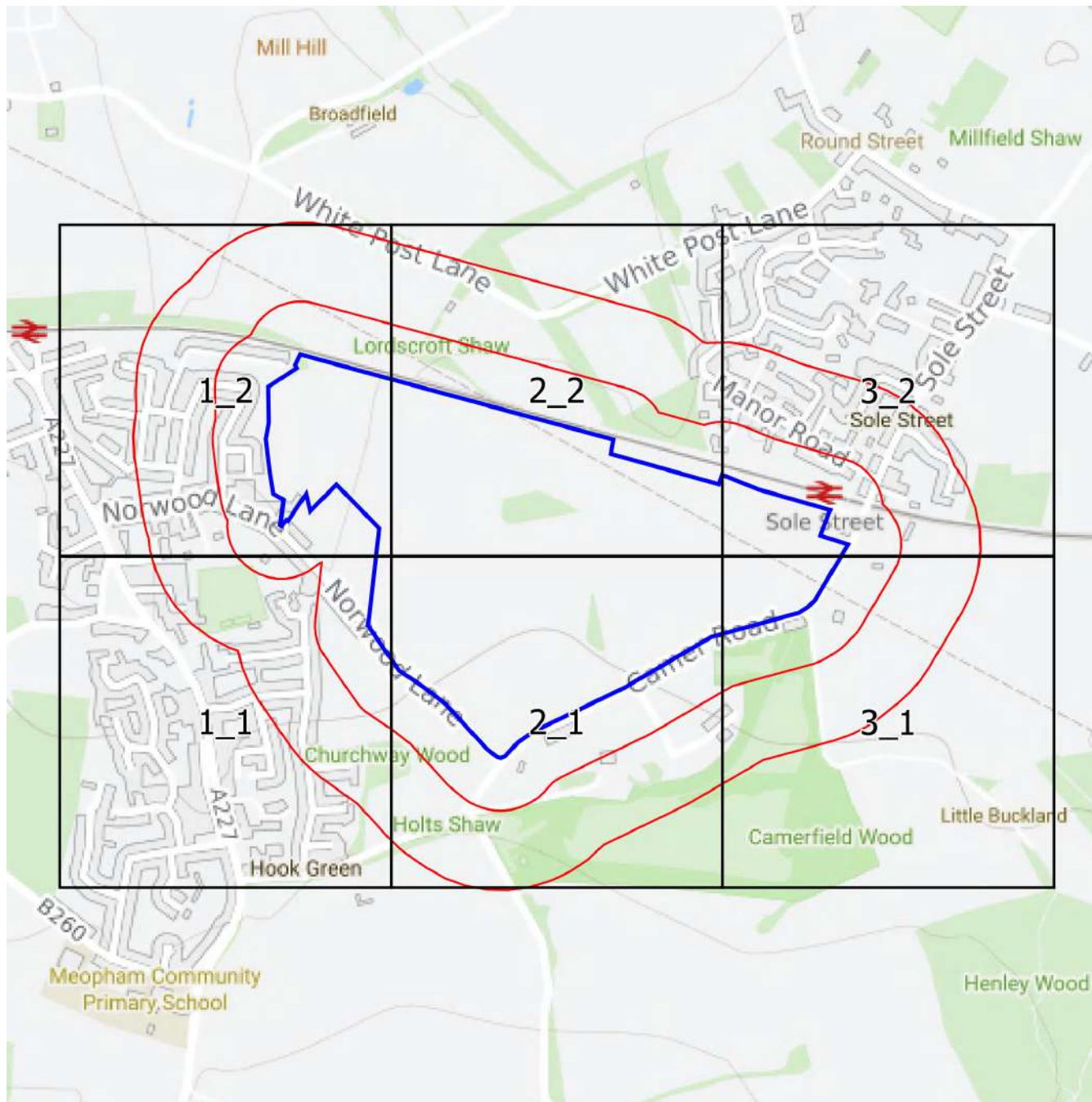
Data providers

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> ↗.

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1:2,500 Scale Grid Index



Site Details:

ALEXANDER HOUSE,
NORWOOD LANE, MEOPHAM,
GRAVESEND, KENT, DA13 0YE

Client Ref: P02164007
Report Ref: GS-4AF-JDA-Y5E-HLT_Landline_1_1
Grid Ref: 564625, 167177

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003



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Production date: 11 July 2025

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

ALEXANDER HOUSE,
NORWOOD LANE, MEOPHAM,
GRAVESEND, KENT, DA13 0YE

Client Ref: P02164007
Report Ref: GS-4AF-JDA-Y5E-HLT_Landline_1_2
Grid Ref: 564625, 167477

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



2003



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