

**Phase 1 Desk Study Report
Chicken Shed at Highwood
Hitchwood Lane
Preston. SG4 7RY**

**ISSUE DATE: June 2023
REPORT REF: 21217R1 (Issue A)**



CONTAMINATION



DOCUMENT CONTROL

Document verification schedule				
Project Name	Chicken Shed at Highwood, Preston. SG4 7RY			
Document title	Phase 1 Desk Study Report			
Document ref	21217R1 (Issue A)			
Date of Issue	June 2023			
Comments	Issued as part of planning requirements			
	Prepared by	Checked by	Quality Check	Approved by
Name	Joshua Hitchman	Jason Fitzgerald	Corrienne Ainscough	Simon Ware
Position	Consultant	Principal Consultant	Business Manager	Managing Director
Date	June 2023	June 2023	June 2023	June 2023

This document has been prepared in accordance with scope of WDE Consulting Ltd's appointment with the Client and is subject to the terms of the appointment. WDE Consulting Ltd accepts no liability for the use of this document other than by the Client and only for the purposes stated in the document. It has been prepared for the sole use and reliance of the Client and shall not be relied upon or transferred to any other parties without the express written authorisation of WDE Consulting Limited.

The report has been prepared with reasonable skill, care and diligence within accordance with the current guidance and common practice at the time of issue. Any interpretation of the results contained within this document are based on the proposed site usage and the findings are not valid should the proposed land use and/or the regulatory regime/guidance change. The findings and opinions conveyed via this document are based on information obtained from a variety of sources as detailed within this report, which WDE Consulting Limited believes are reliable. Nevertheless, WDE Consulting Limited cannot and does not guarantee the authenticity or reliability of the information it has relied upon. In preparing this report, it has been assumed that all past and present occupants have provided all relevant and other information, especially relating to known or potential hazards.

The work is also subject to WDE Consulting's standard terms and conditions.

TABLE OF CONTENTS

	Page
1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	2
2.1 PROPOSED REDEVELOPMENT	2
2.2 AIMS AND OBJECTIVES	2
3.0 RELEVANT GUIDANCE	3
4.0 BACKGROUND INFORMATION	4
4.1 INFORMATION SOURCES	4
4.2 WORK AND PROGRAMME	4
4.3 SITE SETTING	4
4.4 SITE DESCRIPTION AND WALKOVER	4
4.5 UXO RISK	5
4.6 GEOLOGY, HYDROGEOLOGY AND HYDROLOGY	5
4.7 GEOLOGICAL HAZARD	5
4.8 SUMMARY OF FINDINGS	6
4.9 HISTORICAL LAND USE	7
4.10 POTENTIAL AREAS OF CONCERN	8
5.0 PRELIMINARY RISK ASSESSMENT	9
5.1 IDENTIFICATION OF CRITICAL RECEPTORS	9
5.2 IDENTIFICATION OF CONTAMINANT SOURCES	9
5.3 IDENTIFICATION OF POTENTIAL PATHWAYS	9
5.3.1 Human Health Pathways	9
5.3.2 Controlled Waters Pathways	10
5.3.3 Ground Gas Pathway	10
5.4 QUALITATIVE RISK ASSESSMENT	11
6.0 RECOMMENDATIONS AND CONCLUSIONS	13

TABLES

Table 1 – Programme of Works	4
Table 2 – Natural Hazard Findings	5
Table 3 - Identification of Potential Sources of Contamination	9
Table 4 – Identification of Potentially Active Human Health Exposure Pathways	10
Table 5 – Identification of Potentially Active Controlled Water Pathways	10
Table 6 – Identification of Potentially Active Ground Gas Pathways	11
Table 7 – Qualitative Risk Classification Scheme	11
Table 8 - Summary of Potentially Active Source-Pathway-Target Assessment	12

FIGURES

Figure 1 – Site Location Plan
Figure 2 – Current Site Plan

APPENDIX A

Service Constraints

APPENDIX B

Photos

APPENDIX C

Environmental Database Information

1.0 EXECUTIVE SUMMARY

Item	Sensitivity Rating	Comments	Report Section
Current Land Use	Low/Moderate	The site is currently a disused chicken shed with soft standing areas surrounding the site	4.4
Surrounding Current Land Use	Low	Residential and arable land use	4.3
Historical land use	Low	Open fields until the chicken shed was constructed ~25 yrs ago	4.9
On Site Sources	Low/Moderate	Potentially imported made ground	4.10
Off Site Sources	Low/Moderate	Historical tanks and pits, licensed discharge consent	4.10
Geology/Hydrogeology Hydrology	Moderate	Principal aquifer bedrock comprises Chalk over superficial unproductive clay-with-flints deposits. SPZ3 and no potable abstractions within 250m	4.6
Flood Risk	Low	Low risk of groundwater flooding. Outside of flood risk zone	4.8
Environmental Receptors	Low	Nitrate vulnerable zone	4.8
Landfill/Infilled land	Low	No licensed active landfills or infilled land recorded within 250m of site boundaries	4.8
UXO	Low	Low UXO risk area	4.5
Site Conceptual Model	Low/Moderate	- Low/moderate risk to human health - Low/moderate risk to controlled waters - Low/moderate risk from ground gas	6.0
Recommendations	WDE recommend that this report is forwarded to the Local Planning Authority		6.0

2.0 INTRODUCTION

WDE Consulting Limited (WDE) was appointed by Mrs S. Boyle (*the Client*) to conduct a Phase 1 Desk Study Report at the Chicken Shed at Highwood, Preston. SG4 7RY (Figure 1). This report has been written in a format for consideration under the likely conditions of planning.

The works described in this report are subject to WDE's Service Constraints presented in Appendix A. This report was finalised in June 2023 and should be read in light of any subsequent changes in legislation, statutory requirements, statutory guidance, non-statutory guidance, relevant research, and industry practices. This report is currently assigned only to the *Client* for their sole reliance.

2.1 PROPOSED REDEVELOPMENT

WDE understands that the Client is proposing to convert the existing chicken shed into a residential dwelling.

2.2 AIMS AND OBJECTIVES

The aims of this report are as follows:

- To identify whether there is any contamination on site which is likely to cause significant harm to human health, the environment, or other sensitive receptors.

In order to achieve the aims, set out above, WDE proposes the following objectives:

- Conduct a site walkover of the site to assess possible sources of contamination.
- Formulation of a Conceptual Site Model based on environmental information.

3.0 RELEVANT GUIDANCE

WDE Consulting has duly taken account of the recommendations contained within the following guidance documents during the preparation of this report.

The methodology adopted for this report follows the Land Contamination Risk Management (LCRM) for the assessment of land contamination produced by the Agency¹. The LCRM process provides a reasoned and structured mechanism to identify potential risk issues and, where necessary, provide a way forward to develop a robust risk management strategy to address potentially unacceptable risks in an appropriate manner.

An update to the potential human health exposure pathways is provided in the Agency Soil Science Report SR3². In 2008 the Environment Agency and the National House-Building Council (NHBC), Chartered Institute of Environmental Health (CIEH) released a joint publication for the Safe Development of Housing on Land Affected by Contamination³. British Standards have issued guidance for the Investigation of Potentially Contaminated Sites⁴ and for undertaking Site Investigations⁵ and these have duly been considered in the undertaking of this assessment.

The National Planning Policy Framework⁶ requires the following:

- The site is made suitable for its intended use, taking account of all ground conditions arising from natural and former activities, pollution arising from previous uses and proposals for mitigation including land remediation.
- After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990.
- Adequate site investigation information, prepared by a competent person, is presented.

Ground gas guidance has been recently updated by NHBC⁷ that assesses the potential for ground gas risk in relation to the age and type of infilling.

¹Environment Agency. 2020. Land Contamination Risk Management

²Environment Agency, August 2008, Updated technical background to the CLEA model, Science Report - SC050021/SR3

³Environment Agency. 2008. Guidance for the Safe Development of Housing on Land Affected by Contamination. R&D 66

⁴ British Standards 2011. Investigation of Potentially Contaminated Sites-Codes of Practice. BS10175:2011

⁵ British Standards. 2015. Code of Practice for Site Investigations. BS5930: 2015

⁶ Department of Communities and Local Government. March 2012

⁷ NHBC 2023. Hazardous Ground Gas – An essential guide for housebuilders. NF94.

4.0 BACKGROUND INFORMATION

4.1 INFORMATION SOURCES

Information that was used in undertaking the desk study includes the following:

- Site walkover (Photos presented in Appendix B)
- Environmental database information (Appendix C)

4.2 WORK AND PROGRAMME

The programme of work that was undertaken is presented in Table 1.

Table 1 – Programme of Works

Item	Description	Start Date	Completion Date
1	Site walkover	15/06/2023	15/06/2023
2	Phase 1 Desk Study Report	19/06/2023	21/06/2023

4.3 SITE SETTING

The site is located off Hitchwood Lane at National Grid Reference 518885 224396 (Figure 1). The site is situated within a rural setting with the main house (Highwood) to the east of the subject site. Pasture fields and arable fields surround the subject site in all directions.

There are no mains gas, electricity, water or foul sewer into the subject site.

4.4 SITE DESCRIPTION AND WALKOVER

The chicken shed is rectangular in shape measuring ~20m long by ~5m wide, oriented in a northwest to southeast direction and is currently vacant (Photo 1). It is mainly timber clad with ~10 rows of bricks at the base and a concrete floor.

4.5 UXO RISK

According to the Zetica⁸ online database, there is a low risk of UXO onsite.

4.6 GEOLOGY, HYDROGEOLOGY AND HYDROLOGY

Published geological information indicates that the site lies upon bedrock of Chalk (Lewes Nodular Chalk Formation & Seaford Chalk Formation) which is overlain with superficial Clay-with-Flints Formation deposits. The bedrock has been designated as a Principal aquifer with the superficial deposits being designated as unproductive.

The site lies within an Environmental Agency Source Protection Zone 3. There is one historical licensed potable abstraction point located ~250m to the north (general farming and domestic).

The nearest identified surface water feature is the River Purwell ~2.8km north.

4.7 GEOLOGICAL HAZARD

The Natural Hazards Findings has identified several potential hazards which are summarised in Table 2 below.

Table 2 – Natural Hazard Findings

Natural Hazard	Risk Rating
Shrink Swell	Low
Running Sand	Negligible
Compressible Ground	Negligible
Collapseable Deposits	Very Low
Subsidence/Landslides	Very Low
Ground dissolution of Soluble Rocks	Low

The UK Radon database⁹ has identified a less than 1% of homes in the area are above the action level for radon gas. As a result, basic radon protective measures are unlikely to be necessary in the construction of new dwellings or extensions that fall in this category.

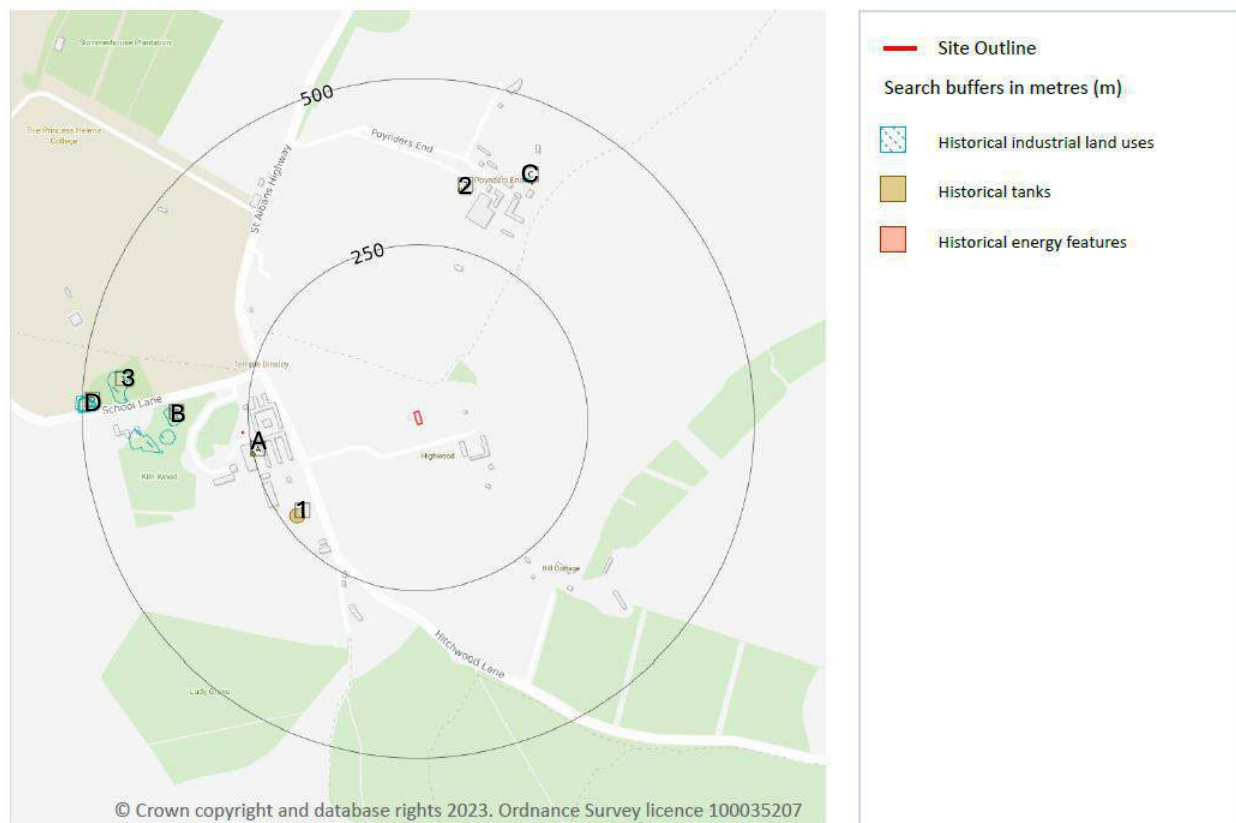
⁸ <https://zeticauxo.com/>

⁹ UK Health Security Agency. <https://www.ukradon.org/information/ukmaps>

4.8 SUMMARY OF FINDINGS

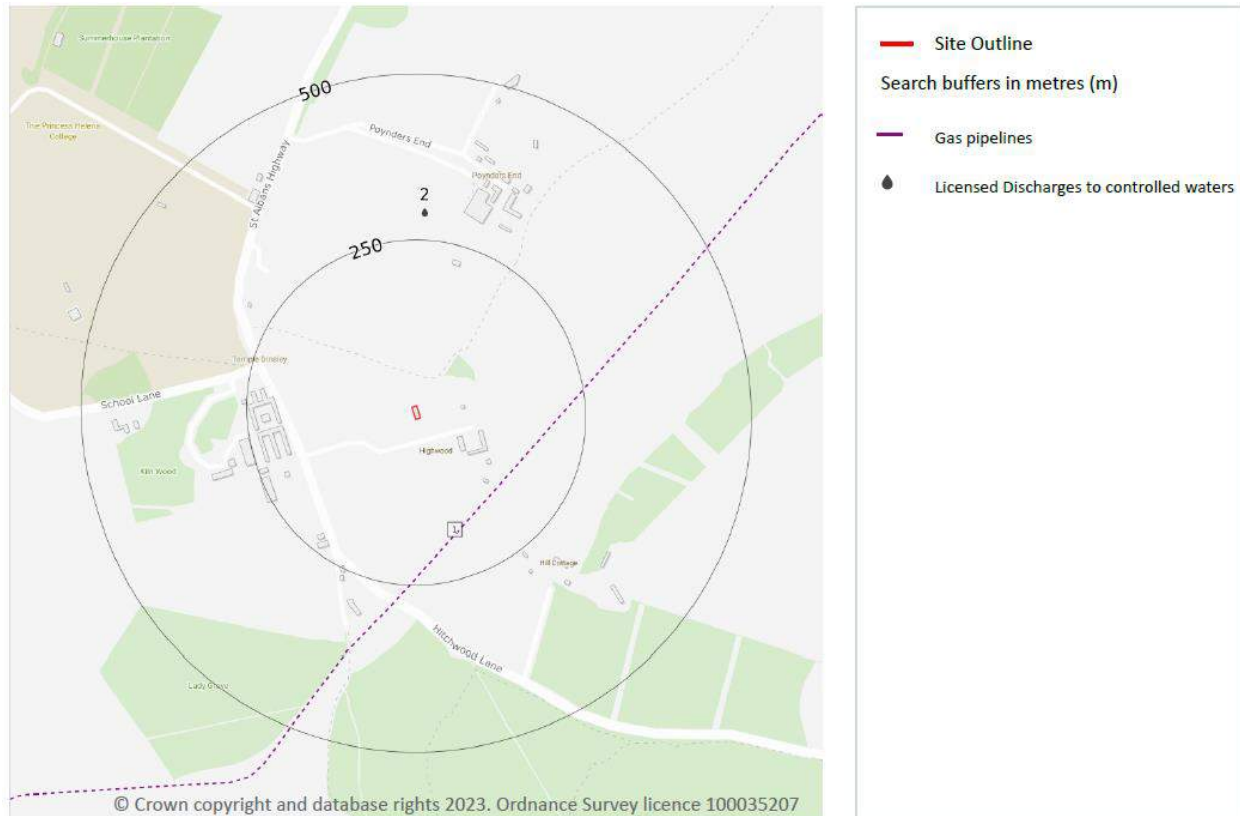
A summary of findings from the environmental database is presented below with full details presented in Appendix C.

Past Land Uses within 250m



- (1) Unspecified Tank (216 SW)
- (2) Unspecified Tank (335m N)
- (3) Unspecified Pit (432m NE)
- (A) Unspecified Tank (247m W)
- (B) Unspecified Pit (353-383m W)
- (C) Wind Pump (381m NE)
- (C) Unspecified Tank (382m NE)

Current Land Uses within 250m



Landfill and Infilled Land within 250m

- No Landfill or infilled land identified.

Onsite Flooding

- Outside of Flood Zone 2 and 3
- Groundwater flooding (low)

4.9 HISTORICAL LAND USE

Surrounding land use was open land with a footpath in the centre of the site from 1897 with Poyttersend Farm ~450m to the north. Home Farm to the west appears in 1922, which was renamed as Minsden Farm by 1976. A chalk pit was present ~750m north from 1897 to 1975. Approximately 250m to the northwest was a covered reservoir constructed between 1950 to 1975, which is presumably still present. By 2010, Mindsden farm is shown to be present to the west (in the location of the current residential property), with Mindsden Farm being renamed as Ladygrove Court.

Anecdotal evidence indicates that the chicken shed was built approximately 25 years ago.

4.10 POTENTIAL AREAS OF CONCERN

The areas of concern onsite are limited to potential imported made ground on the access route and beneath the current structure.

Offsite there are no identified potential areas of concern.

5.0 PRELIMINARY RISK ASSESSMENT

5.1 IDENTIFICATION OF CRITICAL RECEPTORS

Based on future residential land use, the potentially sensitive receptors are:

- On Site Human Health: Future residential occupants
- Off Site Human Health: Current residential occupants
- Groundwater: Principal Aquifer
- Surface water: Covered reservoir (Preston Reservoir)
- Onsite workers*

*The risks to onsite workers can be minimised by following appropriate health and safety guidance on site (i.e., wearing protective clothing and washing).

5.2 IDENTIFICATION OF CONTAMINANT SOURCES

The potential sources of contamination on site and in the surrounding area are summarised in Table 3

Table 3 - Identification of Potential Sources of Contamination

Type of Land Use	Potential Source	Potential Contaminants
Onsite sources	Made Ground	Hydrocarbons (TPH, BTEX, PAH), Heavy Metals, Phenols, Inorganics, Asbestos
Offsite sources	None	No potential source within 250m radius

5.3 IDENTIFICATION OF POTENTIAL PATHWAYS

5.3.1 Human Health Pathways

The potential human health exposure pathways, based on the Agency Soil Science Report SR3¹⁰, for a residential receptor are indicated in Table 4.

¹⁰ Environment Agency, August 2008, Updated technical background to the CLEA model, Science Report – SC050021/SR3

Table 4 – Identification of Potentially Active Human Health Exposure Pathways

Potential Pathway	Active/ Inactive	Notes
Ingestion of soil and dusts	Active	Qualitative Risk Assessment required
Consumption of home grown produce	Active	Qualitative Risk Assessment required
Dermal contact with soils and dust	Active	Qualitative Risk Assessment required
Inhalation of dusts	Active	Qualitative Risk Assessment required
Inhalation of organic vapours (generated by shallow soils) in external areas or inside buildings	Active	Qualitative Risk Assessment required
Inhalation of organic vapours generated by dissolved phase groundwater migrating offsite to neighbouring properties	Active	Qualitative Risk Assessment required
Inhalation of organic vapours generated by dissolved phase groundwater migrating onto site from surrounding offsite sources	Inactive	Qualitative Risk Assessment required
Contaminants from site entering groundwater and migrating into public water abstraction borehole for human consumption	Inactive	Outside of SPZ1. There are no potable water abstractions within 250m of the site – No further assessment required

5.3.2 Controlled Waters Pathways

The potentially active controlled waters migration pathways are indicated in Table 5.

Table 5 – Identification of Potentially Active Controlled Water Pathways

Potential Pathway	Active/ Inactive	Notes
Impacted soils leaching to groundwater within Aquifer	Active	Qualitative Risk Assessment required
Impacted soils leaching to groundwater and migration to surface water	Active	Qualitative Risk Assessment required

5.3.3 Ground Gas Pathway

The potential for ground gas risk depends on source-pathway-receptor linkages, with the age of infilling and type of waste¹¹ as controlling factors. The potentially active migration pathways for ground gas are indicated in Table 6.

¹¹ Steve Wilson. 2018. Screening approach for landfill gas migration around landfill sites

Table 6 – Identification of Potentially Active Ground Gas Pathways

Ground Gas Migration Potential Factors	Active/ Inactive	Notes
Potential for natural materials with high organic content, such as peat	Inactive	No further assessment required
Availability of readily degradable material, such as vegetable matter and food waste	Active	No further assessment required
Nature of fill material - depth of fill >1m, incohesive materials, poorly compacted and within unsaturated zone.	Active	Qualitative Risk Assessment required
Age of Materials - Ground gas generated from current/historical landfills <50yrs old	Inactive	No further assessment required
Distance from receptor – a higher distance reduces the potential risk for offsite migration. High risk generally limited to within 100m distance.	Inactive	No further assessment required
Presence of Preferential Pathways – fissures/fractures in bedrock or permeable strata beneath an impermeable cover	Active	Qualitative Risk Assessment required
Chemical storage/spillages with potential for hydrocarbon vapours	Active	Qualitative Risk Assessment required
Shallow or deep mine workings	Inactive	No further assessment required
Radon gas protective measures required	Inactive	No further assessment required

5.4 QUALITATIVE RISK ASSESSMENT

To assess the potential for risk, the Source → Pathway → Receptor relationships have been evaluated to determine whether there are potentially active pollutant linkages between sources and receptors. It is only when there is an active pollutant linkage, can there be a potential risk to a receptor from a source via a particular pathway. Each active pathway has been assigned a qualitative assessment as to the level of risk as explained in Table 7 as per R&D 66³. A summary of the relevant pollutant linkages based on a source-pathway-receptors analysis is provided in Table 8.

Table 7 – Qualitative Risk Classification Scheme

		CONSEQUENCE			
		Severe	Medium	Mild	Minor
PROBABILITY (Likelihood)	High likelihood	Very High Risk	High risk	Moderate risk	Low risk
	Likely	High risk	Moderate risk	Moderate/low risk	Low risk
	Low likelihood	Moderate risk	Moderate/low risk	Low risk	Very low risk
	Unlikely	Moderate/low risk	Low risk	Very low risk	Very low risk

Table 8 - Summary of Potentially Active Source-Pathway-Target Assessment

Sources	Potential Pathway	Potential Receptor	Risk Classification
Onsite Sources	Dermal contact, outdoor inhalation and indoor inhalation, ingestion, home produce	Human Health (Onsite Residential)	Low/Moderate
	Impacted soils leaching to groundwater within Principal Aquifer	Controlled Waters (Groundwater)	Low/Moderate
	Impacted soils leaching to groundwater and migration to surface water	Controlled Waters (Surface Water)	Low/Moderate
	Inhalation of organic vapours generated by dissolved phase groundwater migrating from site to neighbouring properties	Human Health (Offsite Residential)	Low
	Depth of fill >1m depth, granular materials, readily degradable materials acting as potential ground gas sources	Human Health (Offsite Residential)	Low/moderate

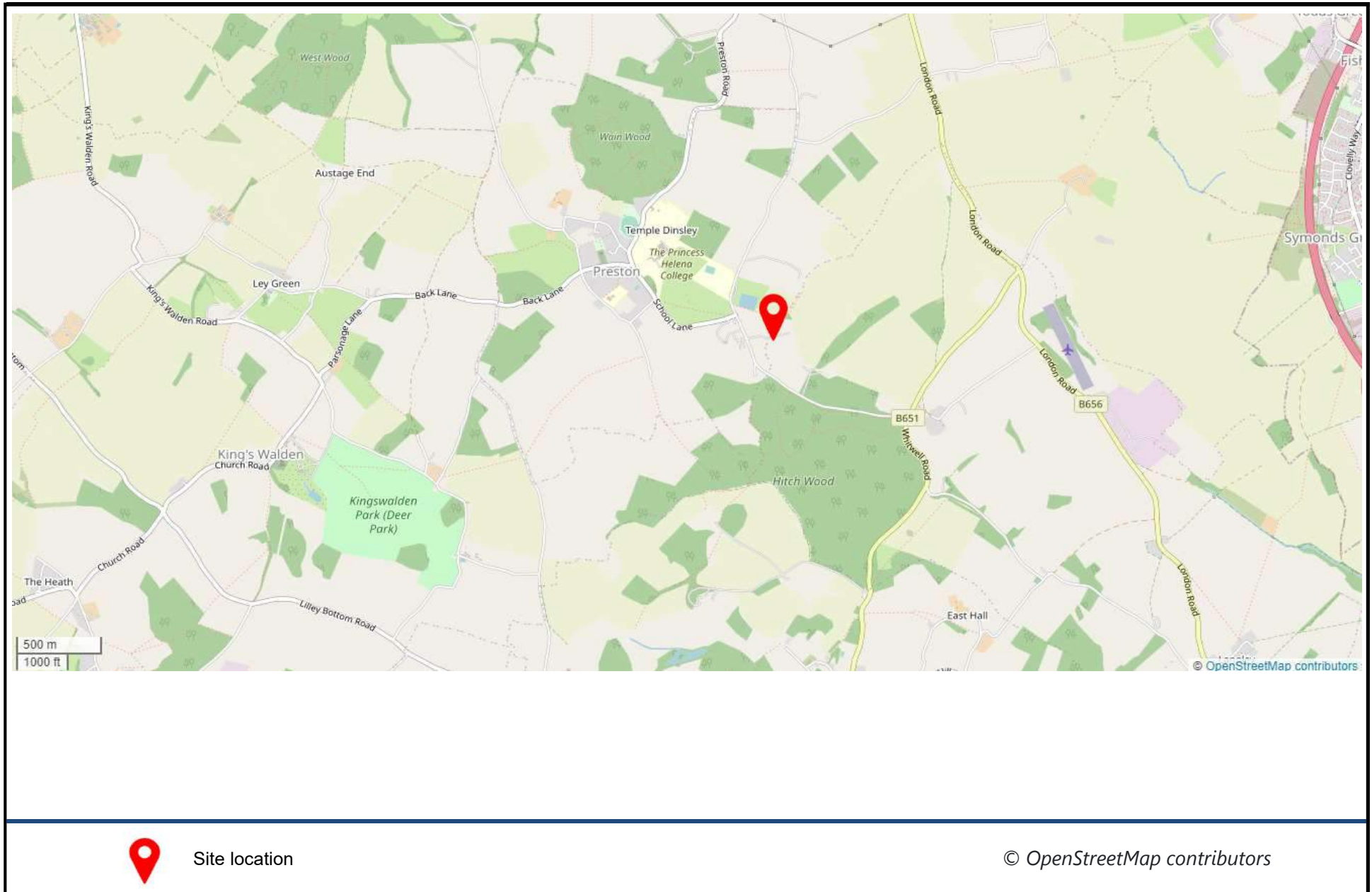
6.0 RECOMMENDATIONS AND CONCLUSIONS

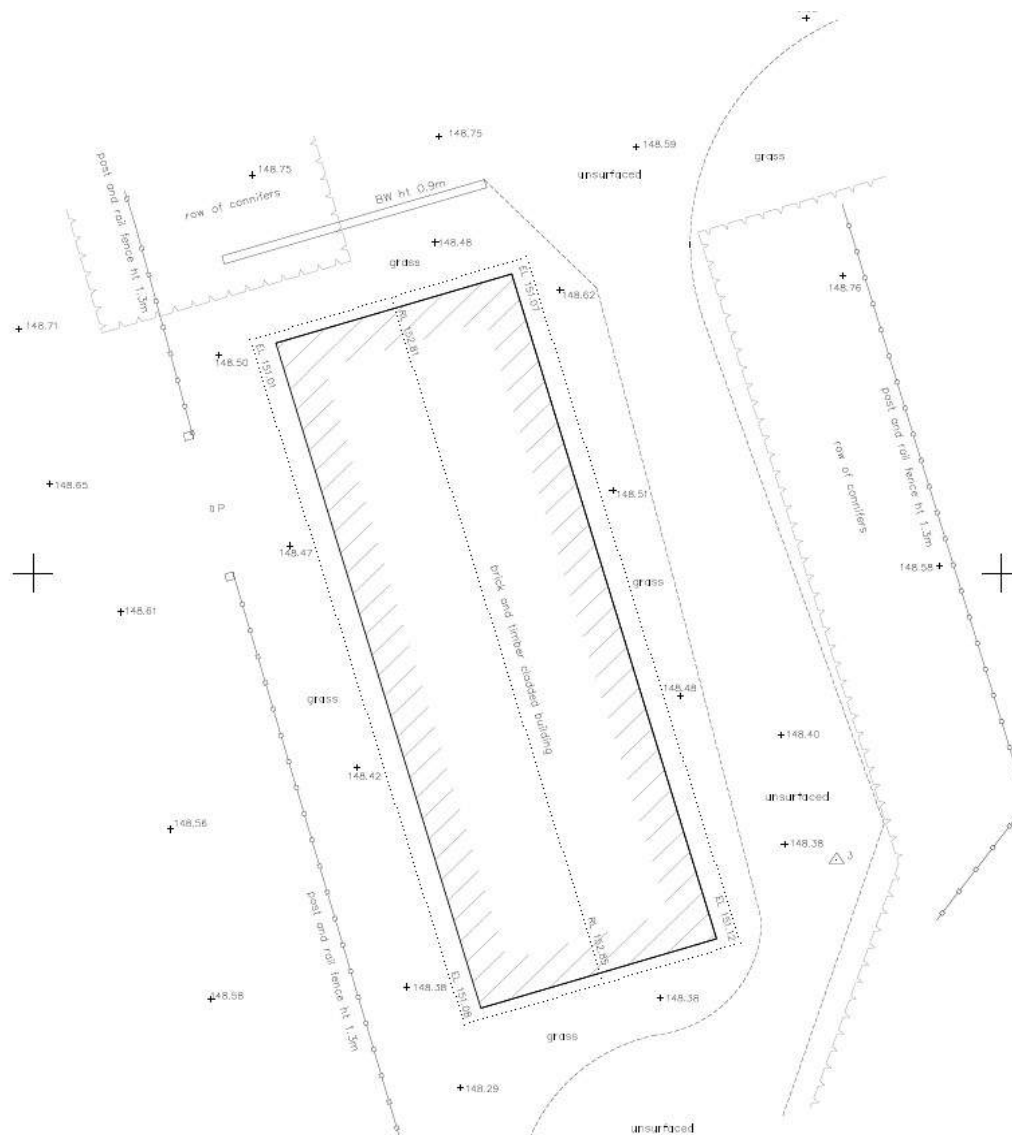
Based on the information provided within this Phase I ESA Report; the conceptual site model and preliminary risk assessment has identified the following risk:

- **Low/moderate** risk to human health
- **Low/moderate** risk to controlled waters
- **Low/moderate risk** from ground gas

WDE recommend that this report is forwarded to the Local Planning Authority as part of the planning application.

FIGURES





Taken from Terrain Surveys. TS23-153-1

APPENDIX A -SERVICE CONSTRAINTS

Mrs S. Boyle (the client) has requested that a Phase 1 Desk Study Report be performed at Chicken Shed at Highwood, Preston. SG4 7RY to provide information to permit formulation of an opinion as to the potential for risks to human health & controlled waters posed by potential substances of concern.

The report represents the findings and opinions of experienced geo-environmental consultants. WDE Consulting Limited does not provide legal advice and the advice of lawyers may also be required. The Client is advised that the conditions stated within reports supplied to WDE Consulting Limited are subject to change. Certain indicators of the presence of hazardous substances may have been latent at the time of the most recent site reconnaissance and may subsequently have become observable.

It is possible that WDE Consulting's research, while fully appropriate for a Phase 1 Desk Study Report, failed to indicate the existence of important information sources. Assuming such sources actually exist, their information could not have been considered in the formulation of WDE Consulting's findings and opinions.

Certain indicators or evidence of hazardous substances may have been outside the very limited portion of the subsurface investigated or monitored, latent at the time of this work or only partially intercepted by the works and thus their full significance could not have been appreciated. Groundwater levels are particularly susceptible to variations due to seasonal or other effects. Any comments on groundwater conditions are based on observations and analyses made by third parties at the time the site work was carried out. Accordingly, it is possible that WDE Consulting's work, whilst fully appropriate for a Phase 1 Desk Study Report failed to indicate the presence or significance of hazardous substances. Assuming such materials present a hazard, their presence could not have been considered in the formulation of WDE Consulting's findings and opinions. The subsurface geological profiles and other plots are generalised by necessity and have been based on the information found at the locations of the exploratory holes and depths sampled and tested.

Any interpretation of the results of the Phase 1 Desk Study Report have been based on the proposed site usage and the findings are not valid should the proposed land use and/or the regulatory regime/guidance change. Where interpretation is based on public domain guidance/protocols/models/software/code, WDE Consulting is not liable for errors in the guidance/protocols/models/software/code.

WDE Consulting Limited believes that providing information about limitations is essential to help the client identify and thereby manage their risks. These risks can be mitigated, but they cannot be eliminated, through additional research. WDE Consulting Limited will on request, advise the client of the additional research opportunities available, their impact on risk, and their cost.

In preparing this report, it has been assumed that all past and present occupants have provided all relevant and other information, especially relating to known or potential hazards. This report is not required to identify insufficiencies or mistakes in the information provided by the user/owner or from any other source, but has sought to compensate for these where obvious in the light of other information.

The work is also subject to WDE Consulting's standard terms and conditions.

APPENDIX B - PHOTOS

Photo 1 – Chicken shed



Photo 2 – Chicken shed interior



Photo 3 – Lawson’s Cypress trees adjacent to subject property



APPENDIX C – ENVIRONMENTAL DATABASE

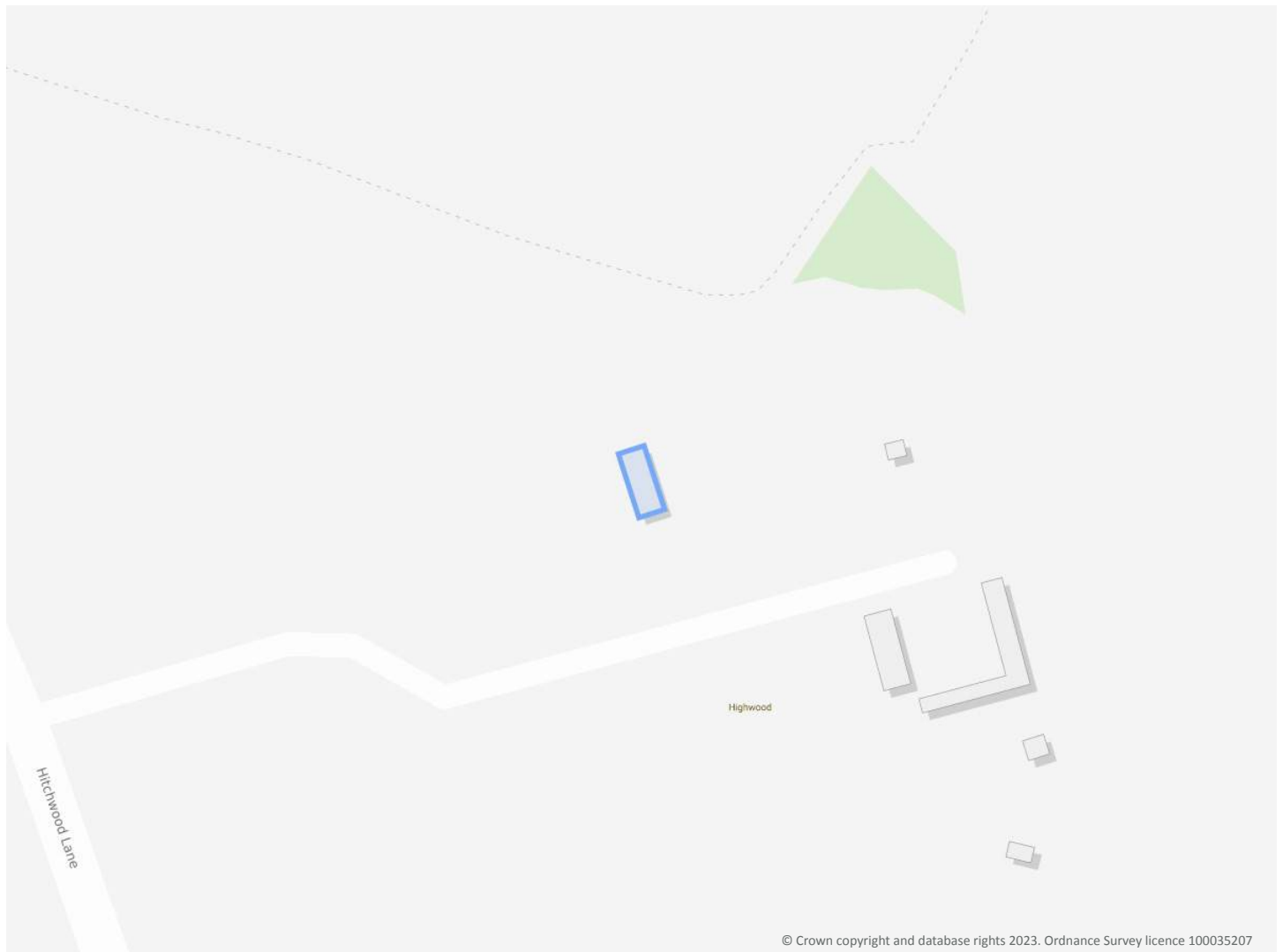
HIGHWOOD, HITCHWOOD LANE, PRESTON, SG4 7RY

Order Details

Date: 19/06/2023
Your ref: 21217
Our Ref: WDE-PBO-GE4-S76-278

Site Details

Location: 518885 224396
Area: 0.01 ha
Authority: [North Hertfordshire District Council](#) ↗



Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.13 >](#)

groundsure.com/insightuserguide ↗

Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	0	0	0	11	-
15 >	1.2 >	Historical tanks >	0	0	2	2	-
16 >	1.3 >	Historical energy features >	0	0	0	1	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
17	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
18 >	2.1 >	Historical industrial land uses >	0	0	0	13	-
19 >	2.2 >	Historical tanks >	0	0	2	3	-
20 >	2.3 >	Historical energy features >	0	0	0	2	-
20	2.4	Historical petrol stations	0	0	0	0	-
20	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
21	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
21	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
21	3.5	Historical waste sites	0	0	0	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
22	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
23	4.1	Recent industrial land uses	0	0	0	-	-
23	4.2	Current or recent petrol stations	0	0	0	0	-
24	4.3	Electricity cables	0	0	0	0	-
24 >	4.4 >	Gas pipelines >	0	0	1	0	-
24	4.5	Sites determined as Contaminated Land	0	0	0	0	-



24	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
25	4.7	Regulated explosive sites	0	0	0	0	-
25	4.8	Hazardous substance storage/usage	0	0	0	0	-
25	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
25	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
25	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
26	4.12	Radioactive Substance Authorisations	0	0	0	0	-
26 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	0	1	-
26	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
26	4.15	Pollutant release to public sewer	0	0	0	0	-
27	4.16	List 1 Dangerous Substances	0	0	0	0	-
27	4.17	List 2 Dangerous Substances	0	0	0	0	-
27	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
27	4.19	Pollution inventory substances	0	0	0	0	-
27	4.20	Pollution inventory waste transfers	0	0	0	0	-
28	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
29 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
31 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
32 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
33 >	5.4 >	<u>Groundwater vulnerability- soluble rock risk ></u>	Identified (within 0m)				
33	5.5	Groundwater vulnerability- local information	None (within 0m)				
34 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	2	9
37 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	1
37 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	1	2
38 >	5.9 >	<u>Source Protection Zones ></u>	1	0	0	0	-
39	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
40	6.1	Water Network (OS MasterMap)	0	0	0	-	-



40	6.2	Surface water features	0	0	0	-	-
41 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
41 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
41 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
43	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
43	7.2	Historical Flood Events	0	0	0	-	-
43	7.3	Flood Defences	0	0	0	-	-
44	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
44	7.5	Flood Storage Areas	0	0	0	-	-
45	7.6	Flood Zone 2	None (within 50m)				
45	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
46	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
47 >	9.1 >	Groundwater flooding >	Low (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
48 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	2
49	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
49	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
49	10.4	Special Protection Areas (SPA)	0	0	0	0	0
49	10.5	National Nature Reserves (NNR)	0	0	0	0	0
50	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
50 >	10.7 >	Designated Ancient Woodland >	0	0	0	4	15
51	10.8	Biosphere Reserves	0	0	0	0	0
51	10.9	Forest Parks	0	0	0	0	0
51	10.10	Marine Conservation Zones	0	0	0	0	0
51 >	10.11 >	Green Belt >	0	0	0	0	1
52	10.12	Proposed Ramsar sites	0	0	0	0	0



52	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
52	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
52	10.15	Nitrate Sensitive Areas	0	0	0	0	0
53 >	10.16 >	Nitrate Vulnerable Zones >	2	0	1	1	2
54 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
55 >	10.18 >	SSSI Units >	0	0	0	0	2
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
57	11.1	World Heritage Sites	0	0	0	-	-
58	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
58	11.3	National Parks	0	0	0	-	-
58 >	11.4 >	Listed Buildings >	0	0	2	-	-
59	11.5	Conservation Areas	0	0	0	-	-
59	11.6	Scheduled Ancient Monuments	0	0	0	-	-
59	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
60 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
61	12.2	Open Access Land	0	0	0	-	-
61	12.3	Tree Felling Licences	0	0	0	-	-
61 >	12.4 >	Environmental Stewardship Schemes >	0	0	1	-	-
61	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
62 >	13.1 >	Priority Habitat Inventory >	0	0	3	-	-
63	13.2	Habitat Networks	0	0	0	-	-
63	13.3	Open Mosaic Habitat	0	0	0	-	-
63	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
64 >	14.1 >	10k Availability >	Identified (within 500m)				
65	14.2	Artificial and made ground (10k)	0	0	0	0	-
66 >	14.3 >	Superficial geology (10k) >	1	0	2	2	-

67	14.4	Landslip (10k)	0	0	0	0	-
68 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
69	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
70 >	15.1 >	50k Availability >	Identified (within 500m)				
71	15.2	Artificial and made ground (50k)	0	0	0	0	-
71	15.3	Artificial ground permeability (50k)	0	0	-	-	-
72 >	15.4 >	Superficial geology (50k) >	1	0	2	2	-
73 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
73	15.6	Landslip (50k)	0	0	0	0	-
73	15.7	Landslip permeability (50k)	None (within 50m)				
74 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
75 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
75	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
76	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
77 >	17.1 >	Shrink swell clays >	Low (within 50m)				
78 >	17.2 >	Running sands >	Negligible (within 50m)				
79 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
80 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
81 >	17.5 >	Landslides >	Very low (within 50m)				
82 >	17.6 >	Ground dissolution of soluble rocks >	Low (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
84	18.1	BritPits	0	0	0	0	-
85 >	18.2 >	Surface ground workings >	0	0	1	-	-
85	18.3	Underground workings	0	0	0	0	0
85	18.4	Underground mining extents	0	0	0	0	-
85	18.5	Historical Mineral Planning Areas	0	0	0	0	-



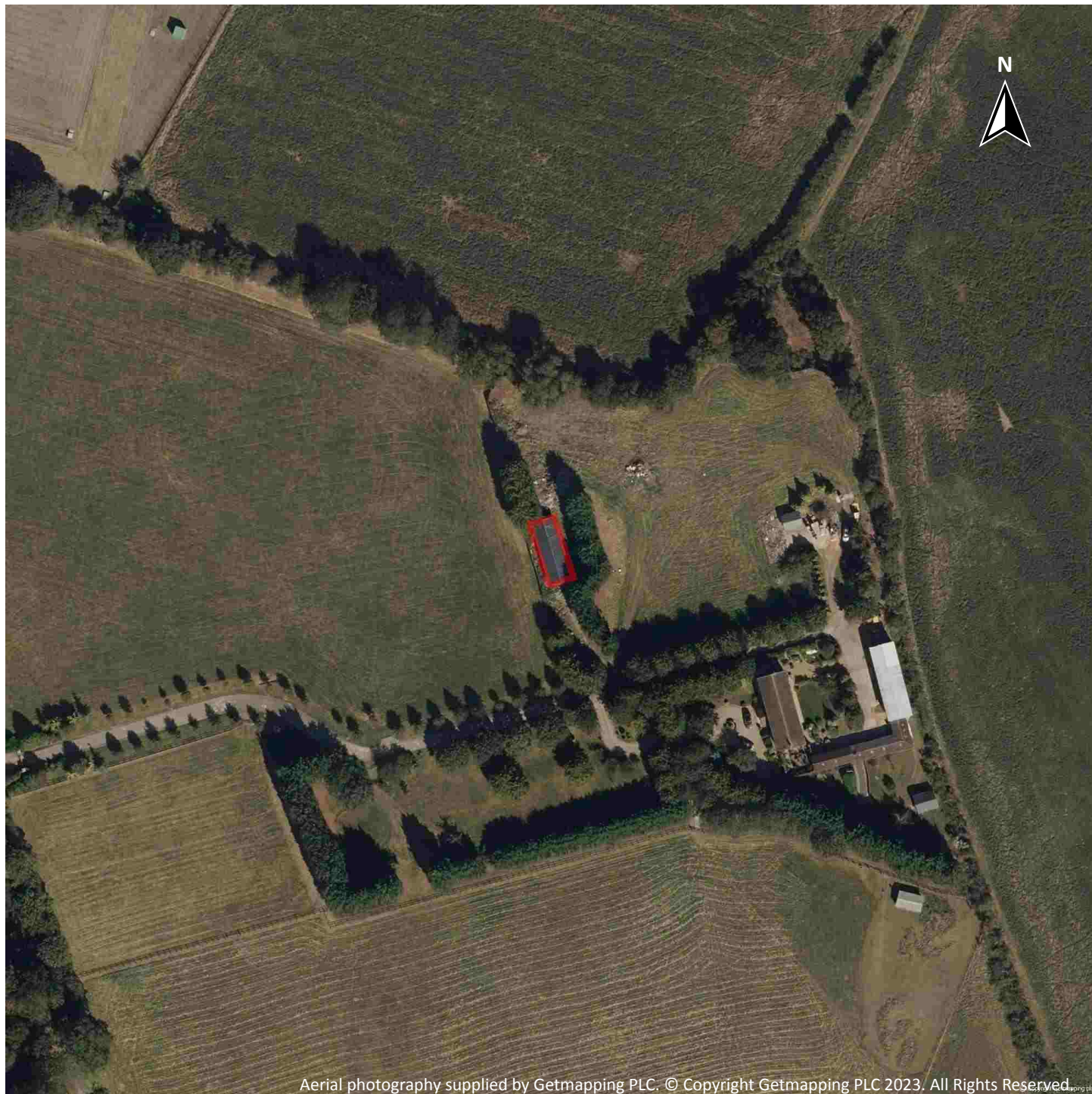
86 >	18.6 >	Non-coal mining >	1	0	0	0	1
86	18.7	JPB mining areas	None (within 0m)				
86	18.8	The Coal Authority non-coal mining	0	0	0	0	-
87	18.9	Researched mining	0	0	0	0	-
87	18.10	Mining record office plans	0	0	0	0	-
87	18.11	BGS mine plans	0	0	0	0	-
87	18.12	Coal mining	None (within 0m)				
87	18.13	Brine areas	None (within 0m)				
88	18.14	Gypsum areas	None (within 0m)				
88	18.15	Tin mining	None (within 0m)				
88	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
89	19.1	Natural cavities	0	0	0	0	-
89	19.2	Mining cavities	0	0	0	0	0
89	19.3	Reported recent incidents	0	0	0	0	-
89	19.4	Historical incidents	0	0	0	0	-
90	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
91 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
93 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	0	-	-	-
93	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
93	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
94	22.1	Underground railways (London)	0	0	0	-	-
94	22.2	Underground railways (Non-London)	0	0	0	-	-
94	22.3	Railway tunnels	0	0	0	-	-
94	22.4	Historical railway and tunnel features	0	0	0	-	-
94	22.5	Royal Mail tunnels	0	0	0	-	-



95	22.6	Historical railways	0	0	0	-	-
95	22.7	Railways	0	0	0	-	-
95	22.8	Crossrail 1	0	0	0	0	-
95	22.9	Crossrail 2	0	0	0	0	-
95	22.10	HS2	0	0	0	0	-



Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 14/09/2019

Site Area: 0.01ha



Recent site history - 2015 aerial photograph

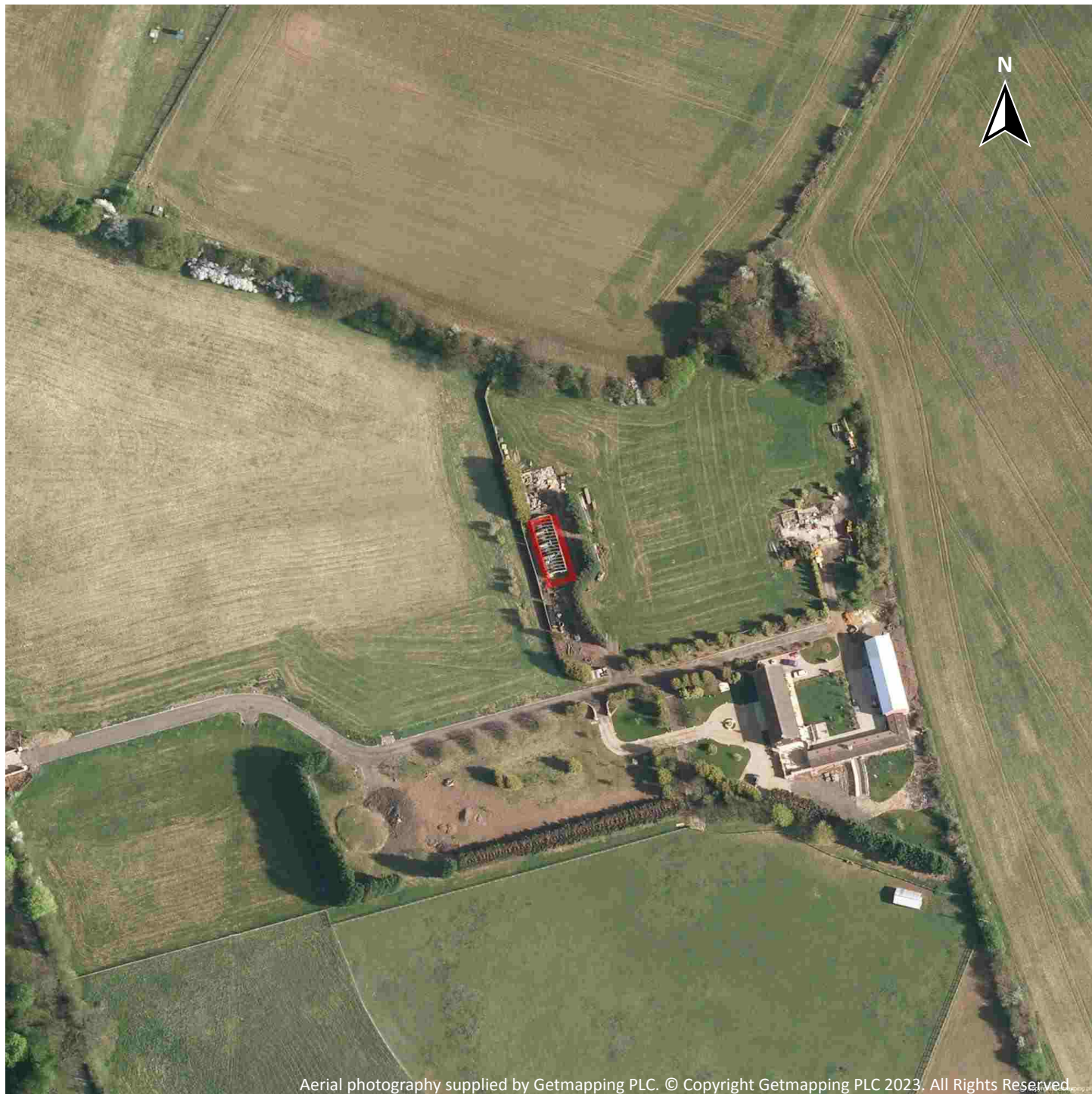


Capture Date: 03/07/2015

Site Area: 0.01ha



Recent site history - 2010 aerial photograph

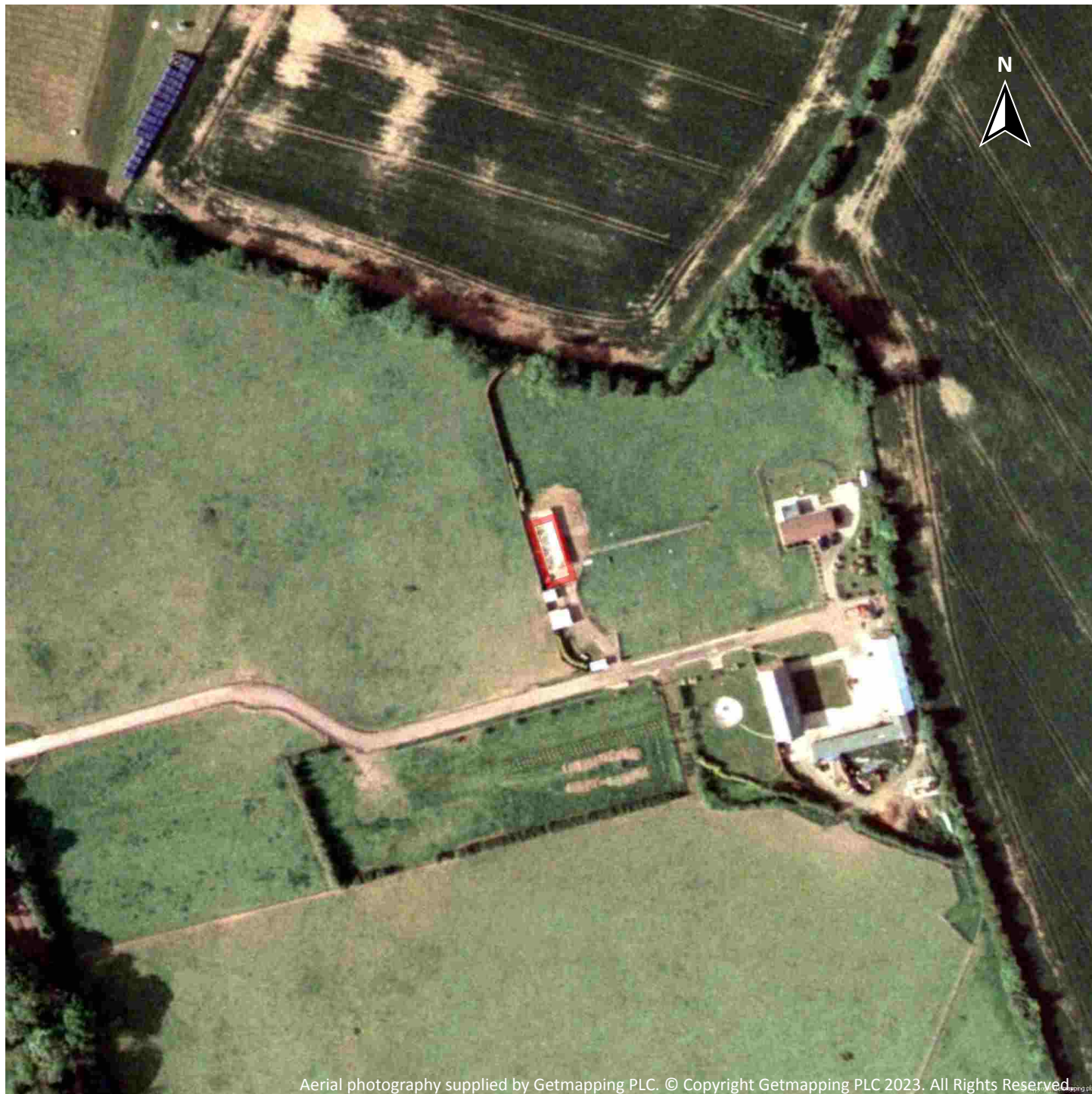


Capture Date: 27/04/2010

Site Area: 0.01ha



Recent site history - 1999 aerial photograph



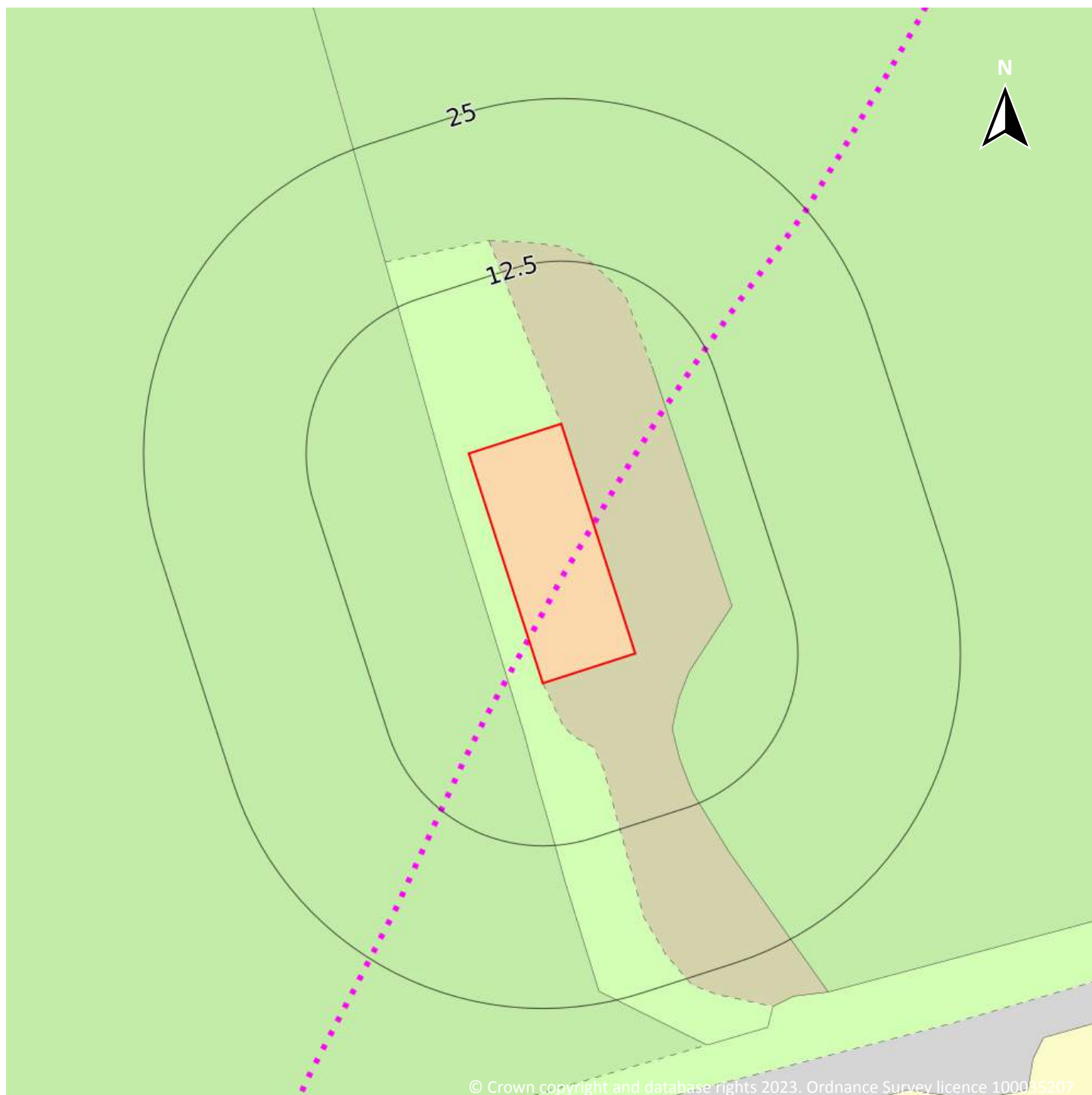
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2023. All Rights Reserved.

Capture Date: 27/05/1999

Site Area: 0.01ha



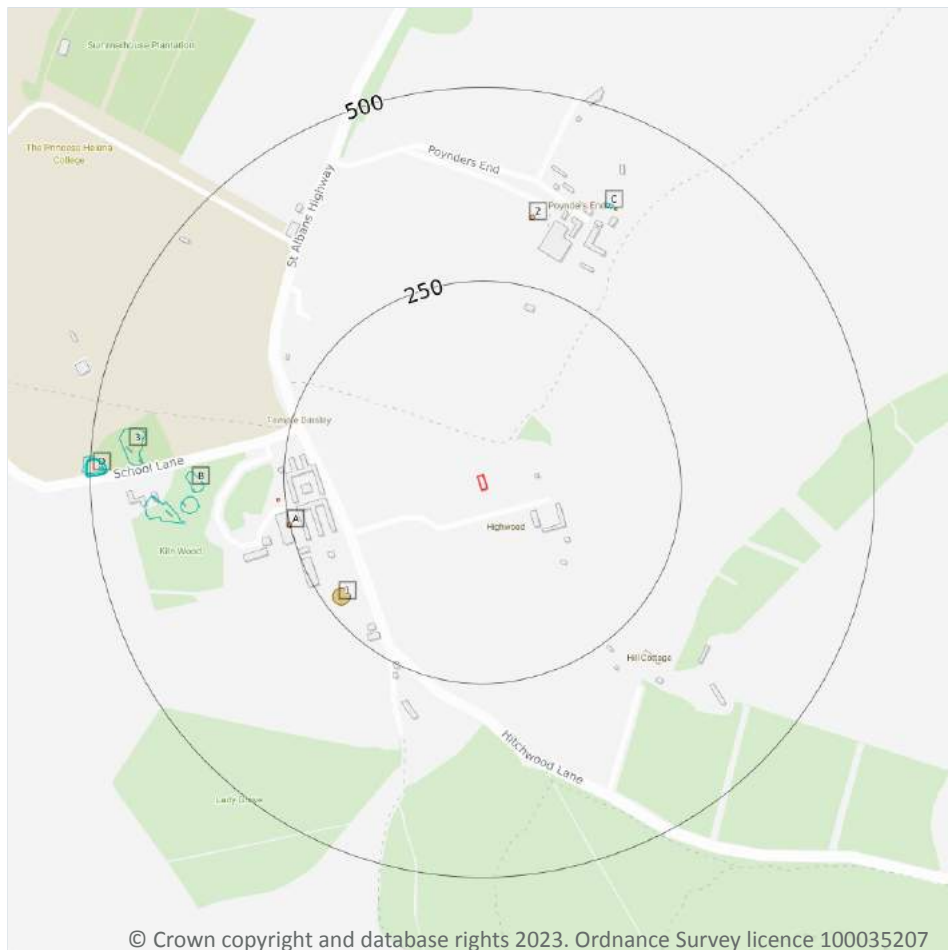
OS MasterMap site plan



Site Area: 0.01ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

11

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
B	353m W	Unspecified Pit	1881	2040908



ID	Location	Land use	Dates present	Group ID
B	361m W	Unspecified Pit	1881	2040907
C	381m NE	Wind Pump	1938	2109968
C	381m NE	Wind Pump	1922	2102142
B	383m W	Unspecified Pit	1881	2040906
3	432m W	Unspecified Pit	1881	2040903
D	478m W	Unspecified Pit	1879	2116911
D	479m W	Unspecified Pit	1922	2086042
D	480m W	Unspecified Pit	1922	2078506
D	481m W	Unspecified Pit	1938	2104424
D	484m W	Unspecified Pit	1951	2068363

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

4

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
1	216m SW	Unspecified Tank	1999	342987
A	247m W	Unspecified Tank	1924	342999
2	335m N	Unspecified Tank	1999	343000
C	382m NE	Unspecified Tank	1971 - 1993	358025

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

1

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
A	257m W	Electricity Substation	1996 - 1999	238231

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

0

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'.

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

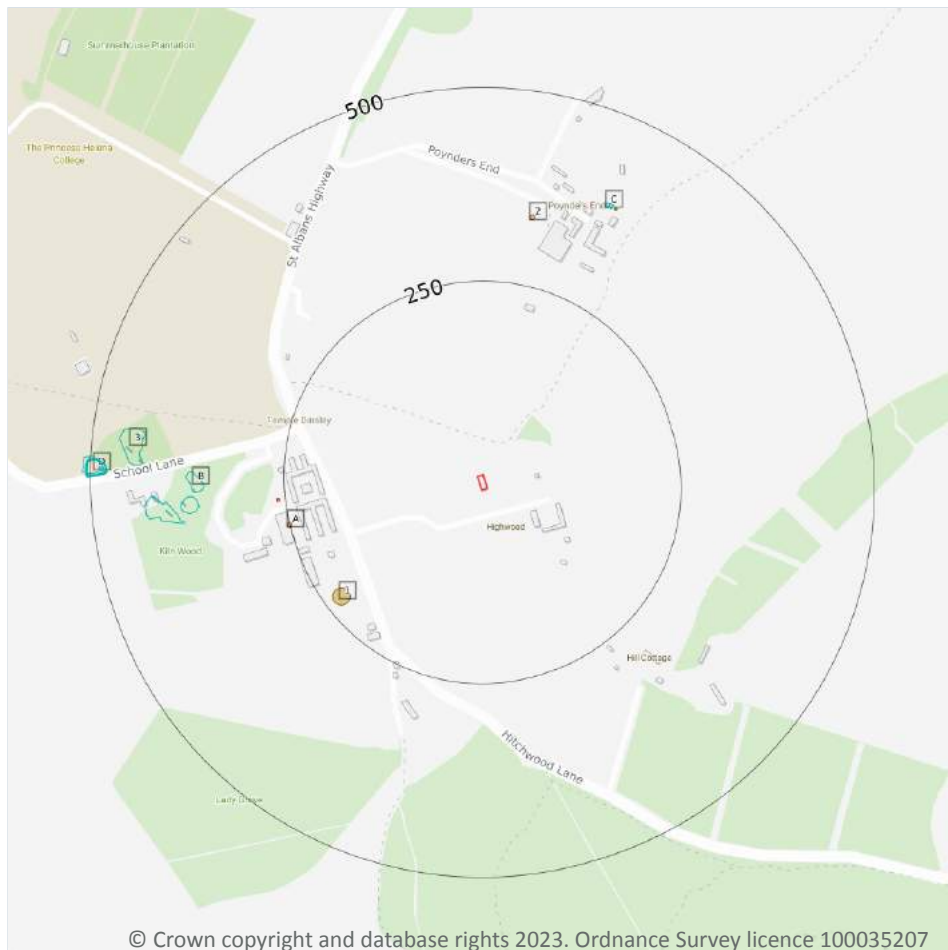
0

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

2.1 Historical industrial land uses

Records within 500m

13

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 18](#) >

ID	Location	Land Use	Date	Group ID
B	353m W	Unspecified Pit	1881	2040908
B	361m W	Unspecified Pit	1881	2040907
C	381m NE	Wind Pump	1938	2109968



ID	Location	Land Use	Date	Group ID
C	381m NE	Wind Pump	1922	2102142
C	381m NE	Wind Pump	1922	2102142
B	383m W	Unspecified Pit	1881	2040906
3	432m W	Unspecified Pit	1881	2040903
D	478m W	Unspecified Pit	1879	2116911
D	479m W	Unspecified Pit	1922	2086042
D	479m W	Unspecified Pit	1922	2086042
D	480m W	Unspecified Pit	1922	2078506
D	481m W	Unspecified Pit	1938	2104424
D	484m W	Unspecified Pit	1951	2068363

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	5
----------------------------	----------

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 18 >](#)

ID	Location	Land Use	Date	Group ID
1	216m SW	Unspecified Tank	1999	342987
A	247m W	Unspecified Tank	1924	342999
2	335m N	Unspecified Tank	1999	343000
C	382m NE	Unspecified Tank	1971	358025
C	382m NE	Unspecified Tank	1993	358025

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

2

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 18](#) >

ID	Location	Land Use	Date	Group ID
A	257m W	Electricity Substation	1996	238231
A	257m W	Electricity Substation	1999	238231

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

0

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'.

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

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

0

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

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



3.6 Licensed waste sites

Records within 500m

0

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

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

3.7 Waste exemptions

Records within 500m

0

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.

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Gas pipelines
- Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m

0

Current potentially contaminative industrial sites.

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.



4.3 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**1**

High pressure underground gas transmission pipelines.

Features are displayed on the Current industrial land use map on [page 23](#) >

ID	Location	Pipe Name	Details	
1	156m SE	GREAT WILBRAHAM TO WHITWELL	Pipe Number: - Pipeline Safety Regulations Number: - Ownership: National Grid Maximum Operating Pressure (Bar): -	Pipeline Diameter (mm): 900 Wall Thickness (mm): - Year of commission: Not specified Abandonment Status: Not abandoned

This data is sourced from National Grid.

4.5 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.

4.6 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.

4.7 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.

4.8 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.

4.9 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.

4.10 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.

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

Records within 500m

0

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.

This data is sourced from Local Authority records.



4.12 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.

4.13 Licensed Discharges to controlled waters

Records within 500m

1

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on [page 23](#) >

ID	Location	Address	Details	
2	292m N	POYNDERS END, PRESTON, HERTS.	Effluent Type: UNSPECIFIED Permit Number: PR1LFU103 Permit Version: 1 Receiving Water: Land	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 20/08/1981 Effective Date: 20/08/1981 Revocation Date: 01/10/1996

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

4.14 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.

4.15 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.



4.16 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.

4.17 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.

4.18 Pollution Incidents (EA/NRW)

Records within 500m**0**

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

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

4.19 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.

4.20 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.



4.21 Pollution inventory radioactive waste

Records within 500m

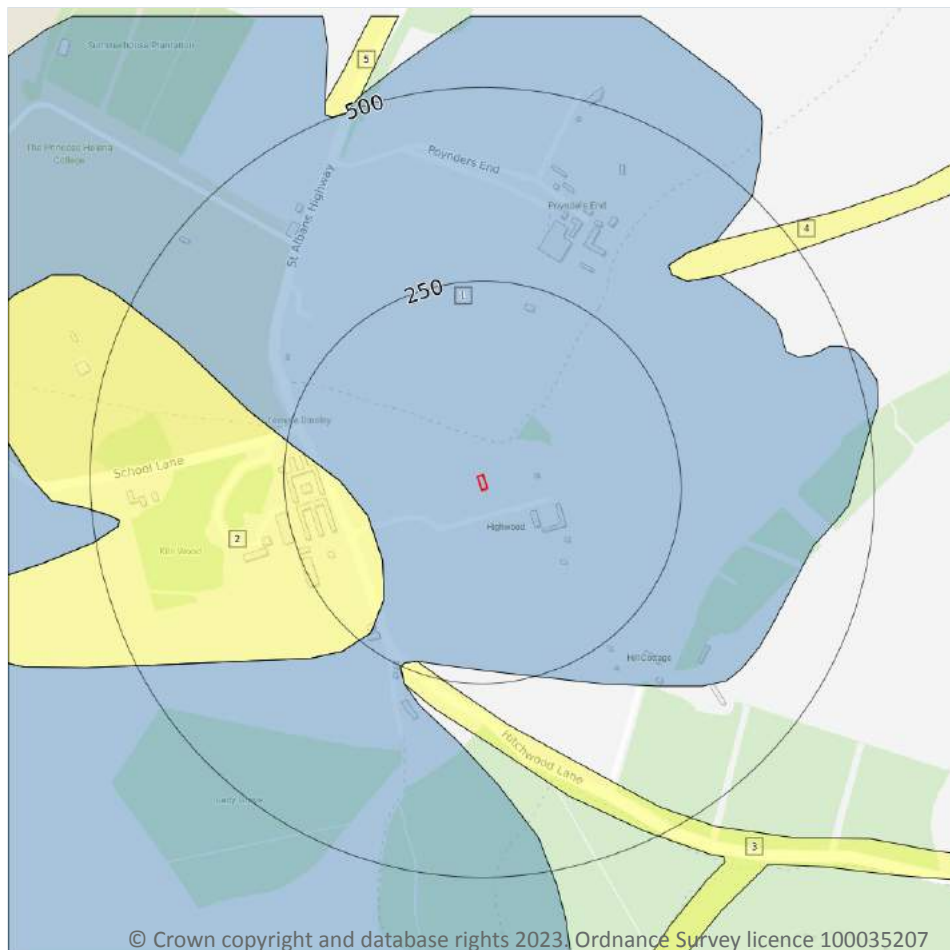
0

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

5

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 29 >](#)

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	150m 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



ID	Location	Designation	Description
3	236m 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
4	355m 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
5	498m N	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



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

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

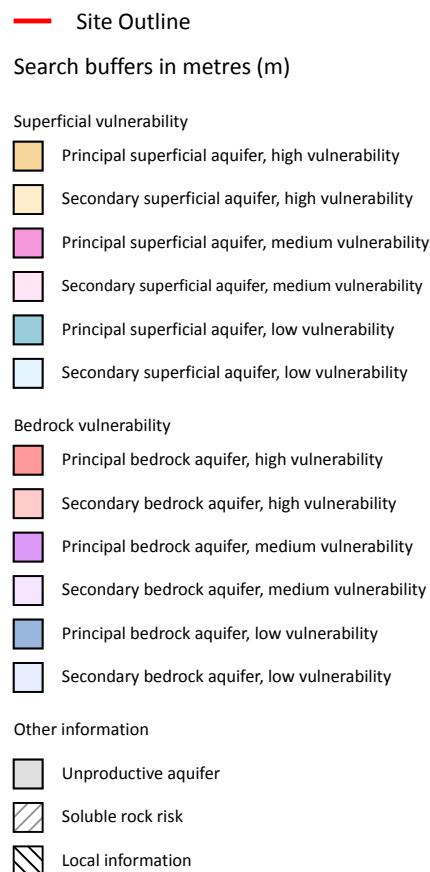
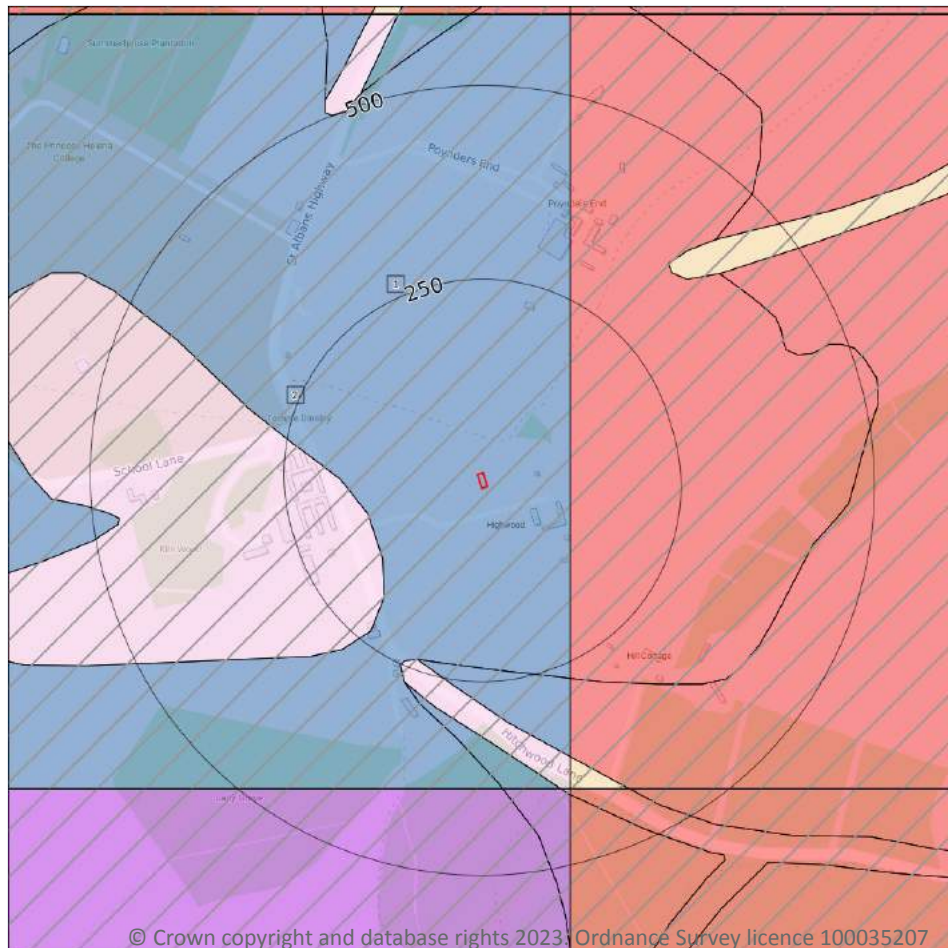
Features are displayed on the Bedrock aquifer map on [page 31](#) >

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

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

1

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 32 >](#)



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Principal bedrock aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Unproductive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40- 70% Dilution value: <300mm/year	Vulnerability: Unproductive Aquifer type: Unproductive Thickness: 3-10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low 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	1
------------------------	----------

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
2	Very significant soluble rocks are likely to be present with a moderate possibility of localised natural subsidence or dissolution-related degradation of bedrock, especially in adverse conditions such as concentrated surface or subsurface water flow.	11.0%

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

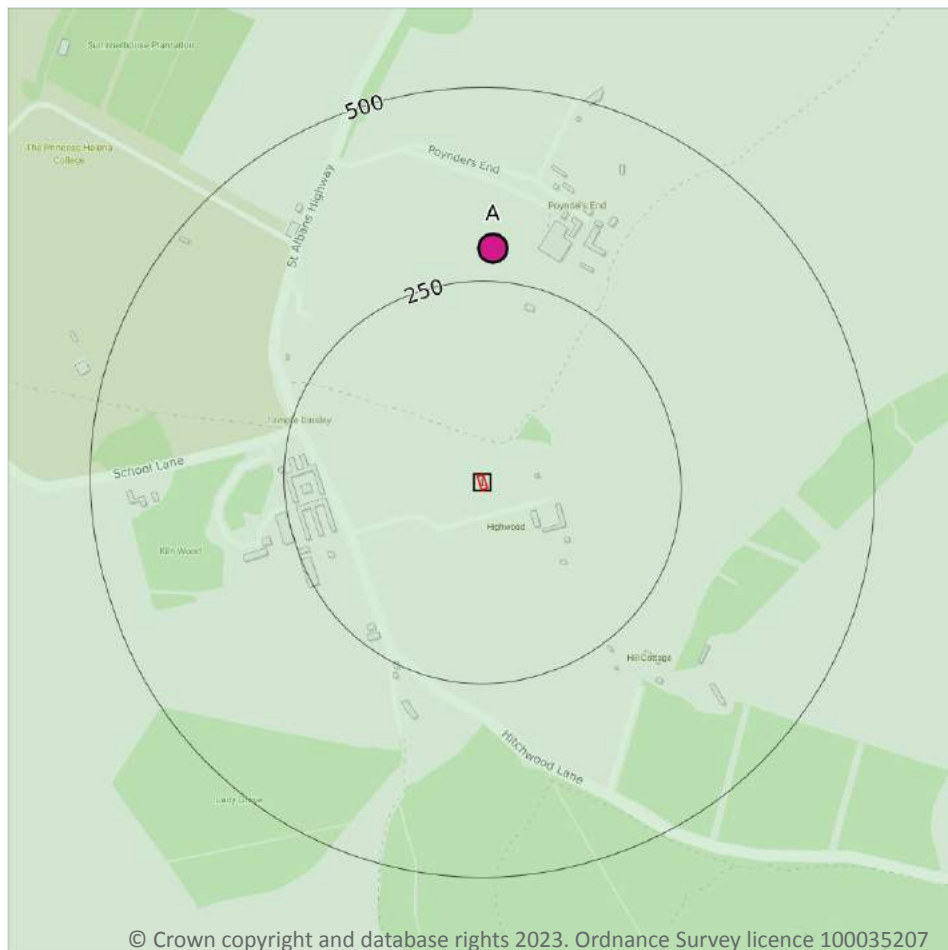
5.5 Groundwater vulnerability- local information

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
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

11

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 34](#) >



ID	Location	Details	
A	292m N	Status: Historical Licence No: 6/33/13/*G/0095 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT POYNDERS END Data Type: Point Name: KEAN Easting: 518900 Northing: 224700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1995 Expiry Date: - Issue No: 100 Version Start Date: 01/10/1996 Version End Date: -
A	292m N	Status: Historical Licence No: 6/33/13/*G/0095 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT POYNDERS END Data Type: Point Name: KEAN Easting: 518900 Northing: 224700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1995 Expiry Date: - Issue No: 100 Version Start Date: 01/10/1996 Version End Date: -
-	1066m SE	Status: Historical Licence No: 6/33/13/*G/0102 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT LANGLEY END Data Type: Point Name: LAUDER Easting: 519840 Northing: 223900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/01/2001 Expiry Date: - Issue No: 1 Version Start Date: 17/01/2001 Version End Date: -
-	1119m SE	Status: Historical Licence No: 6/33/13/*G/0072 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT LANGLEY Data Type: Point Name: REX Easting: 519900 Northing: 223900	Annual Volume (m ³): 6819 Max Daily Volume (m ³): 22.73 Original Application No: - Original Start Date: 01/09/1974 Expiry Date: - Issue No: 100 Version Start Date: 01/09/1992 Version End Date: -
-	1126m E	Status: Historical Licence No: 6/33/13/*G/0053 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE E OF POYNDERS END Data Type: Point Name: FAWCETT Easting: 520000 Northing: 224600	Annual Volume (m ³): 882 Max Daily Volume (m ³): 27.28 Original Application No: - Original Start Date: 01/05/1968 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1995 Version End Date: -



ID	Location	Details	
-	1126m E	Status: Historical Licence No: 6/33/13/*G/0053 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE E OF POYNDERS END Data Type: Point Name: FAWCETT Easting: 520000 Northing: 224600	Annual Volume (m ³): 882 Max Daily Volume (m ³): 27.28 Original Application No: - Original Start Date: 01/05/1968 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1995 Version End Date: -
-	1133m SE	Status: Active Licence No: 6/33/13/*G/0072 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT LANGLEY Data Type: Point Name: EAST HALL FARMS LTD Easting: 519920 Northing: 223910	Annual Volume (m ³): 6819 Max Daily Volume (m ³): 23 Original Application No: CS 2499 Original Start Date: 01/09/1974 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1618m S	Status: Active Licence No: 29/38/02/0055 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: STAGENHOE PARK, WHITWELL - BOREHOLE Data Type: Point Name: ST PAUL'S WALDEN BURY ESTATE COMPANY Easting: 519200 Northing: 222800	Annual Volume (m ³): 16427 Max Daily Volume (m ³): 50 Original Application No: W/714/29/38 Original Start Date: 20/12/1968 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1618m S	Status: Active Licence No: 29/38/02/0055 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: THAMES GROUNDWATER Point: STAGENHOE PARK, WHITWELL - BOREHOLE Data Type: Point Name: ST PAUL'S WALDEN BURY ESTATE COMPANY Easting: 519200 Northing: 222800	Annual Volume (m ³): 16427 Max Daily Volume (m ³): 50 Original Application No: W/714/29/38 Original Start Date: 20/12/1968 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1621m S	Status: Active Licence No: 29/38/02/0078 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: SUE RYDER HOME BOREHOLE AT POINT A Data Type: Point Name: SUE RYDER FOUNDATION Easting: 518560 Northing: 222800	Annual Volume (m ³): 8410 Max Daily Volume (m ³): 28 Original Application No: - Original Start Date: 23/01/1995 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -



ID	Location	Details	
-	1775m NW	Status: Historical Licence No: 6/33/13/*G/0046 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT TATMORE PLACE Data Type: Point Name: DERMAL LABORATORIES LTD Easting: 518100 Northing: 226000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/12/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1972 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

1

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 34 >](#)

ID	Location	Details	
-	1930m W	Status: Historical Licence No: AN/034/0006/030 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: STOURTON WATER AT CAWSTON Data Type: Point Name: WM YOUNGS & SON (FARMS) LTD Easting: 517002 Northing: 224850	Annual Volume (m ³): 73000 Max Daily Volume (m ³): 818 Original Application No: - Original Start Date: 29/07/2014 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 29/07/2014 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

3

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 34 >](#)



ID	Location	Details	
A	292m N	Status: Historical Licence No: 6/33/13/*G/0095 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT POYNDERS END Data Type: Point Name: KEAN Easting: 518900 Northing: 224700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1995 Expiry Date: - Issue No: 100 Version Start Date: 01/10/1996 Version End Date: -
-	1066m SE	Status: Historical Licence No: 6/33/13/*G/0102 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT LANGLEY END Data Type: Point Name: LAUDER Easting: 519840 Northing: 223900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 17/01/2001 Expiry Date: - Issue No: 1 Version Start Date: 17/01/2001 Version End Date: -
-	1618m S	Status: Active Licence No: 29/38/02/0055 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: THAMES GROUNDWATER Point: STAGENHOE PARK, WHITWELL - BOREHOLE Data Type: Point Name: ST PAUL'S WALDEN BURY ESTATE COMPANY Easting: 519200 Northing: 222800	Annual Volume (m ³): 16427 Max Daily Volume (m ³): 50 Original Application No: W/714/29/38 Original Start Date: 20/12/1968 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -

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

5.9 Source Protection Zones

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

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 34 >](#)

ID	Location	Type	Description
1	On site	3	Total catchment

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



5.10 Source Protection Zones (confined aquifer)

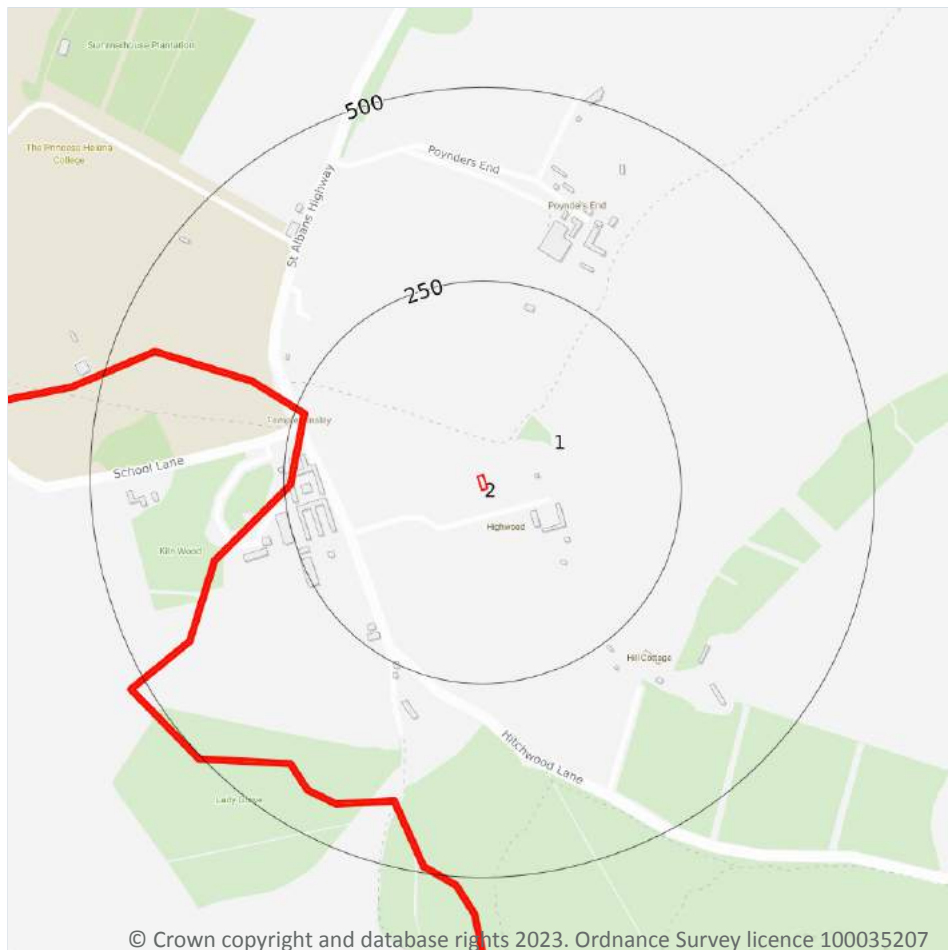
Records within 500m
0

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 40](#) >

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Purwell	GB105033037690	Ivel	Ouse Upper and Bedford

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

6.4 WFD Surface water bodies

Records identified

1

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

Features are displayed on the Hydrology map on [page 40](#) >

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2800m N	River	Purwell	GB105033037690 ↗	Moderate	Fail	Moderate	2019

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 40](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Upper Bedford Ouse Chalk	GB40601G603000 ↗	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

8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

Negligible

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.

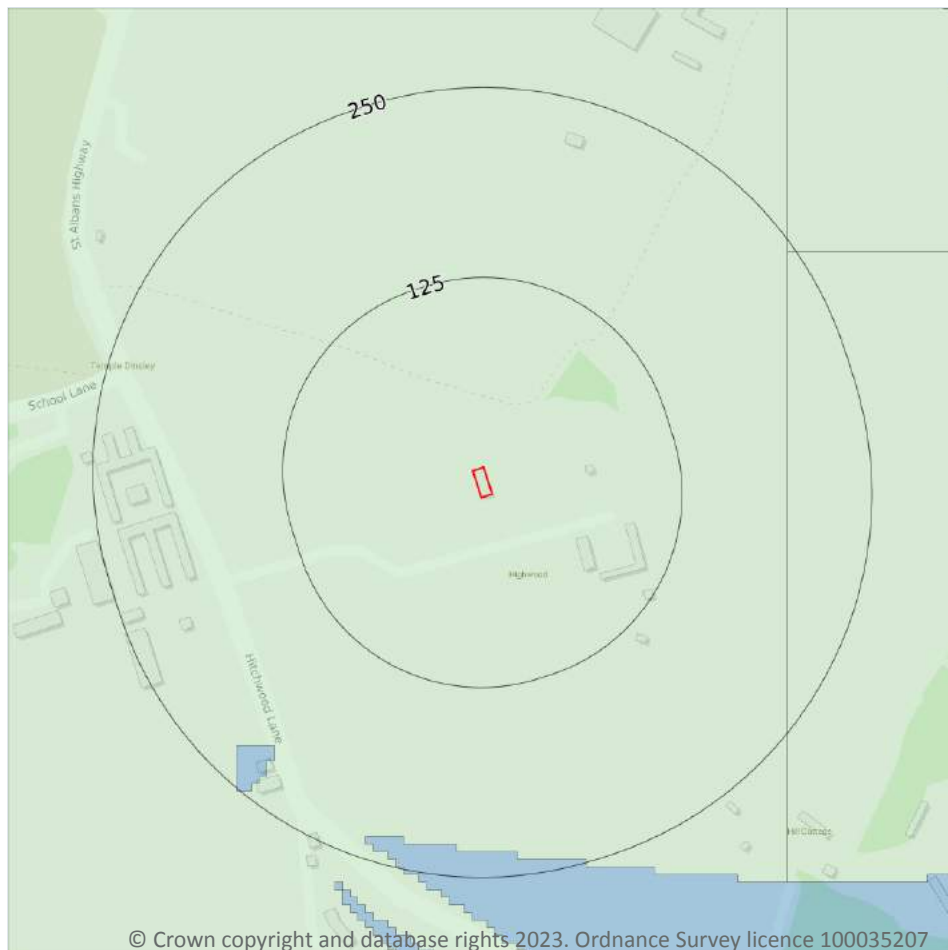
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the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

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



9 Groundwater flooding



- Site Outline
- Search buffers in metres (m)
- High
 - Moderate - High
 - Moderate
 - Low
 - Negligible

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

Low

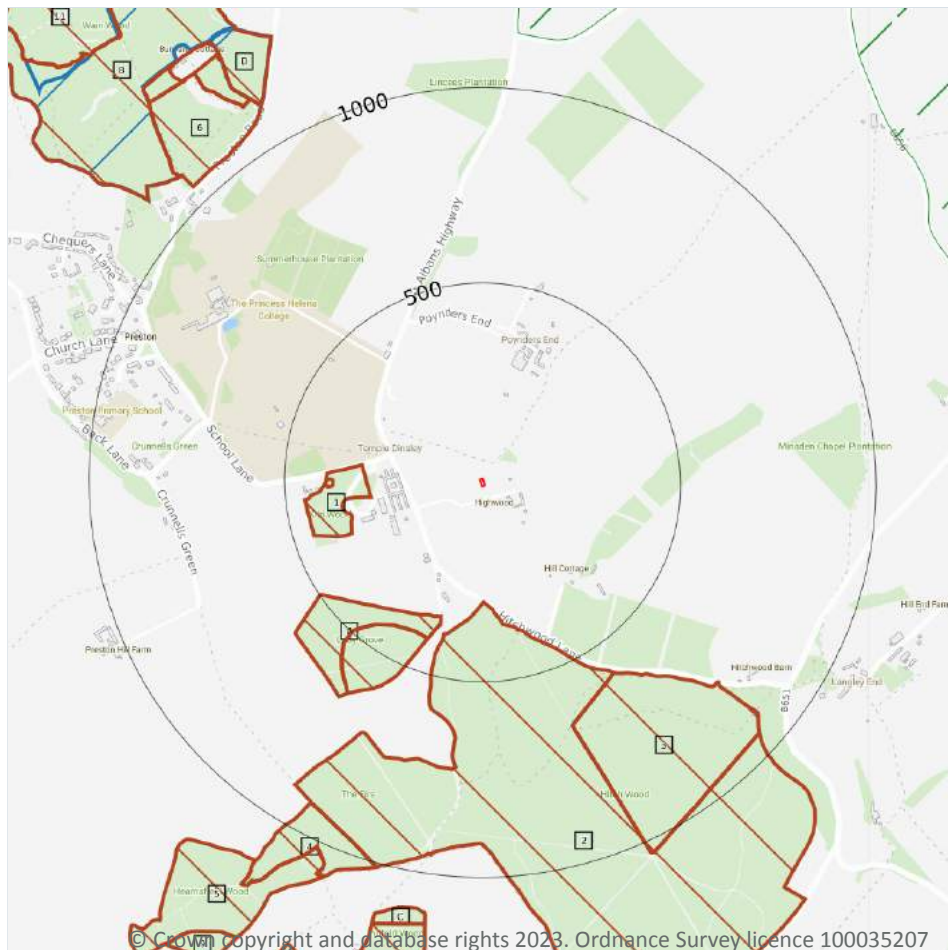
Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks 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 47](#) >

This data is sourced from Ambiantal Risk Analytics.



10 Environmental designations



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

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

2

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 48](#) >

ID	Location	Name	Data source
B	1089m NW	Wain Wood	Natural England



ID	Location	Name	Data source
D	1108m NW	Wain Wood	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

19

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 48 >](#)

ID	Location	Name	Woodland Type
1	283m W	Unknown	Ancient Replanted Woodland
2	296m S	Hitch/hearnsfield Woods	Ancient & Semi-Natural Woodland
A	349m S	Hitch/hearnsfield Woods	Ancient Replanted Woodland
A	408m SW	Hitch/hearnsfield Woods	Ancient & Semi-Natural Woodland
3	582m SE	Hitch/hearnsfield Woods	Ancient Replanted Woodland
4	921m SW	Hitch/hearnsfield Woods	Ancient Replanted Woodland
5	1013m SW	Hitch/hearnsfield Woods	Ancient & Semi-Natural Woodland
6	1047m NW	Unknown	Ancient Replanted Woodland
B	1089m NW	Unknown	Ancient & Semi-Natural Woodland
C	1091m S	Pinfold Wood	Ancient Replanted Woodland
C	1128m S	Pinfold Wood	Ancient & Semi-Natural Woodland
D	1129m NW	Unknown	Ancient Replanted Woodland
B	1270m NW	Unknown	Ancient Replanted Woodland
8	1270m SW	Foxholes Wood	Ancient & Semi-Natural Woodland
9	1313m SW	Hitch/hearnsfield Woods	Ancient Replanted Woodland
-	1370m N	Vicars Grove	Ancient & Semi-Natural Woodland



ID	Location	Name	Woodland Type
11	1459m NW	Unknown	Ancient Replanted Woodland
-	1702m NW	Unknown	Ancient & Semi-Natural Woodland
-	1961m S	Chalkleys Woods	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

1

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

Features are displayed on the Environmental designations map on [page 48 >](#)



ID	Location	Name	Local Authority name
7	1137m N	London	North Hertfordshire

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 fall 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

6

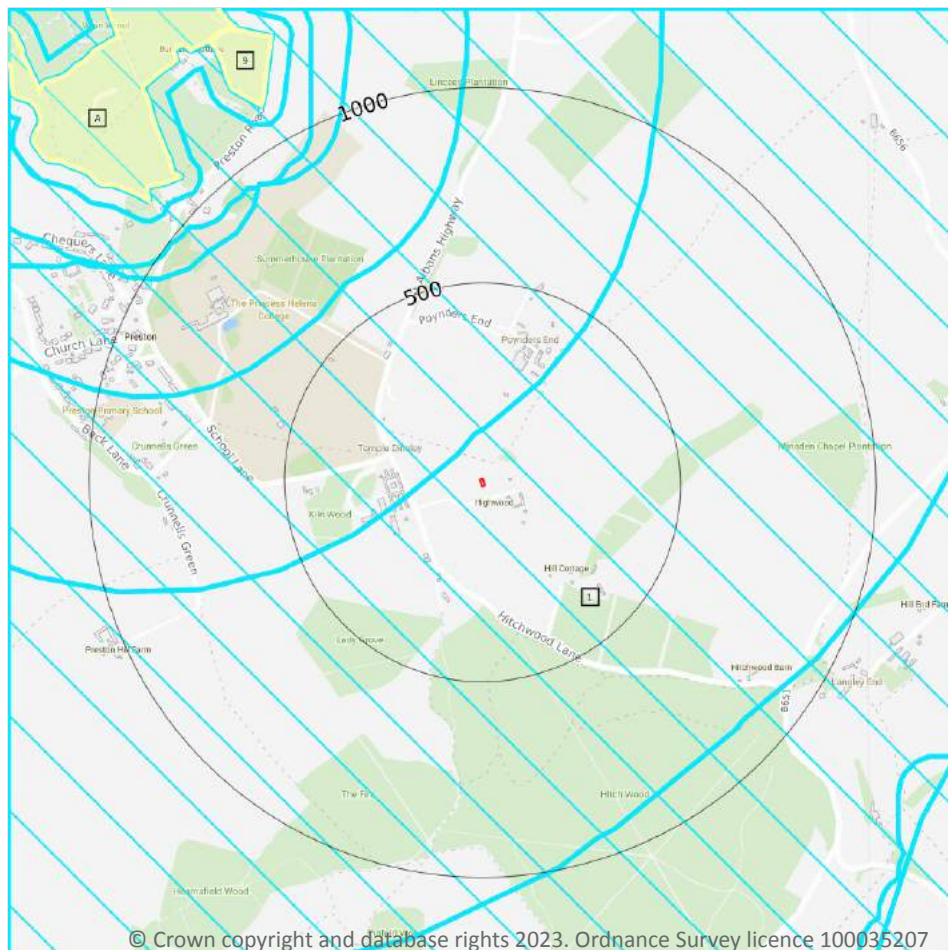
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Great Ouse NVZ	Surface Water	391	Existing
On site	Anglian Chalk	Groundwater	71	Existing
230m W	LEE NVZ	Surface Water	443	Existing
281m W	Luton Chalk	Groundwater	146	Existing
1574m N	Great Ouse NVZ	Surface Water	391	Existing
1574m N	Anglian Chalk	Groundwater	71	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 54](#) >

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	2
----------------------	---

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 54 >](#)

ID: A
 Location: 1089m NW
 SSSI name: Wain Wood
 Unit name: Wains Wood
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Unfavourable - Recovering	20/05/2009



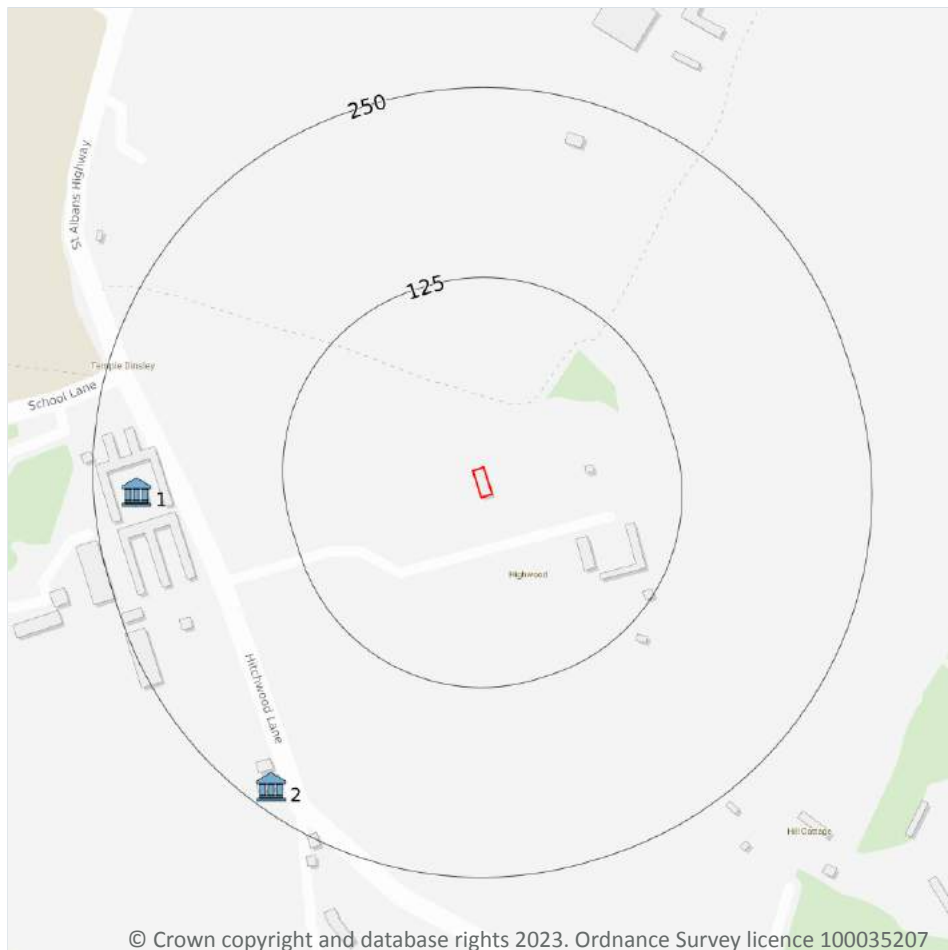
ID: 9
Location: 1108m NW
SSSI name: Wain Wood
Unit name: Wains Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Unfavourable - Recovering	20/05/2009

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**0**

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

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

11.3 National Parks

Records within 250m**0**

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

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

11.4 Listed Buildings

Records within 250m**2**

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 57 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	222m W	Ladygrove Stud Farm Including Dairy Cottage, Ladygrove Lodge, And Kiln Wood Lodge	II	1176799	14/01/1977
2	236m SW	Nos 1 And 2 Hitchwood Cottages, And Outhouse Linked To North	II	1176749	08/02/1988

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



11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

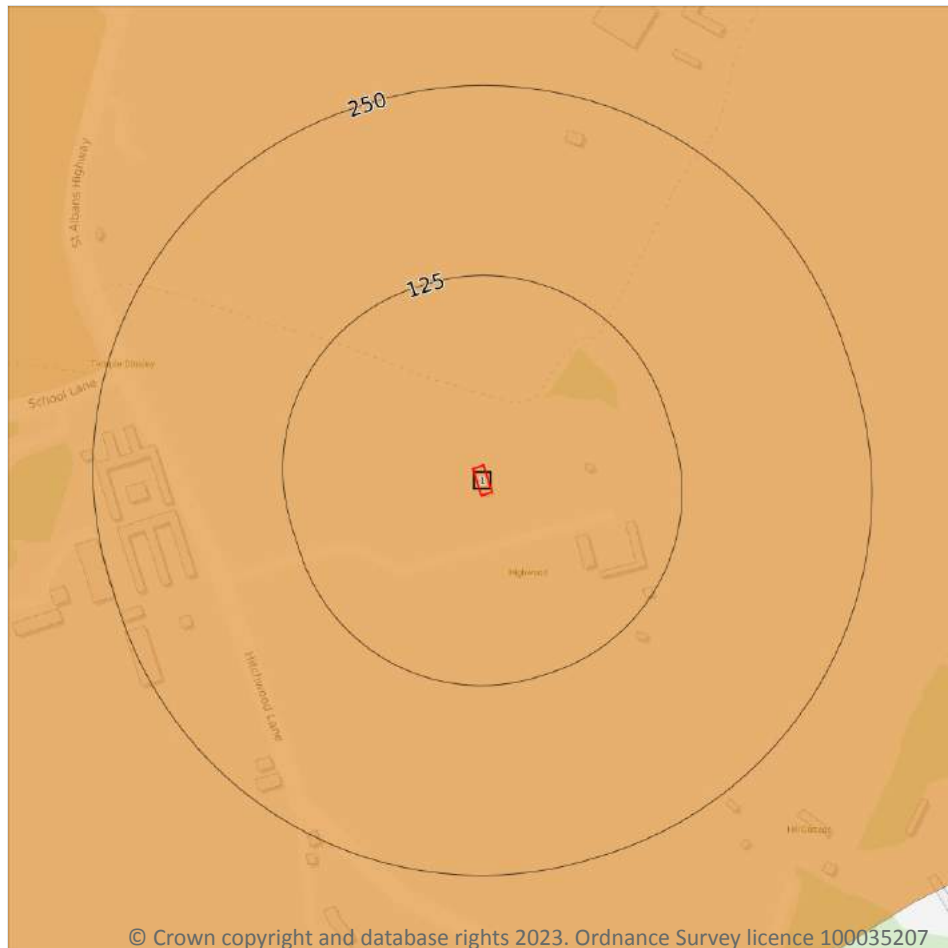
0

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

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



12 Agricultural designations



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

12.1 Agricultural Land Classification

Records within 250m

1

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 60](#) >

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

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m

0

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

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

12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

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
250m W	AG00421077	Entry Level plus Higher Level Stewardship	01/09/2013	31/08/2023

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

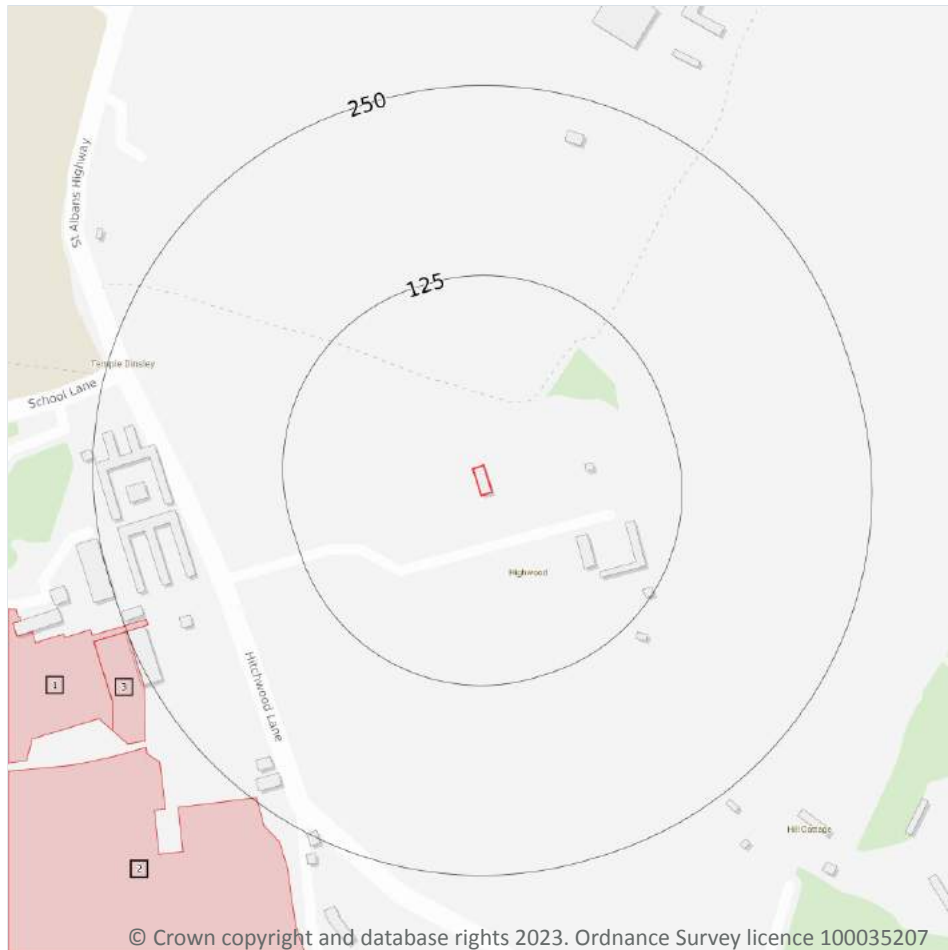
0

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

This data is sourced from Natural England.



13 Habitat designations



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

13.1 Priority Habitat Inventory

Records within 250m

3

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 62](#) >

ID	Location	Main Habitat	Other habitats
1	235m W	No main habitat but additional habitats present	Additional: TORCH (INV 50%)
2	248m SW	No main habitat but additional habitats present	Additional: DWOOD (INV 50%)
3	250m SW	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset

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

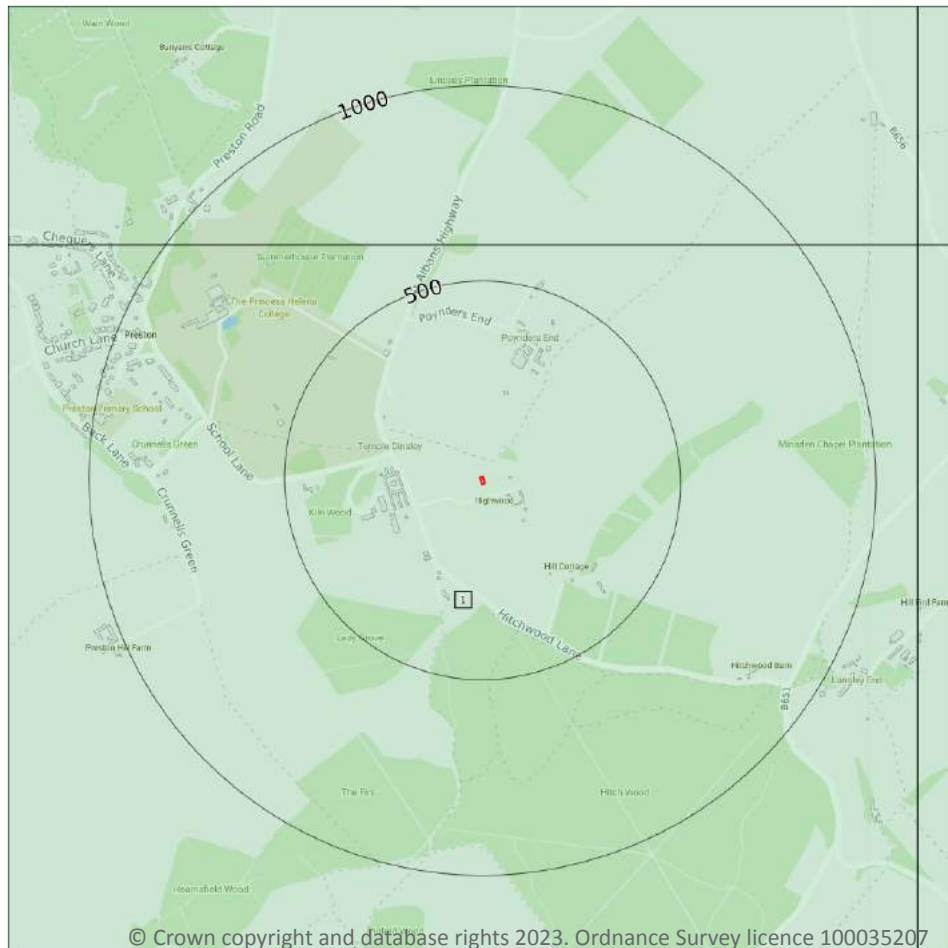
0

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

1

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 64](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	TL12SE

This data is sourced from the British Geological Survey.



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

14.2 Artificial and made ground (10k)

Records within 500m

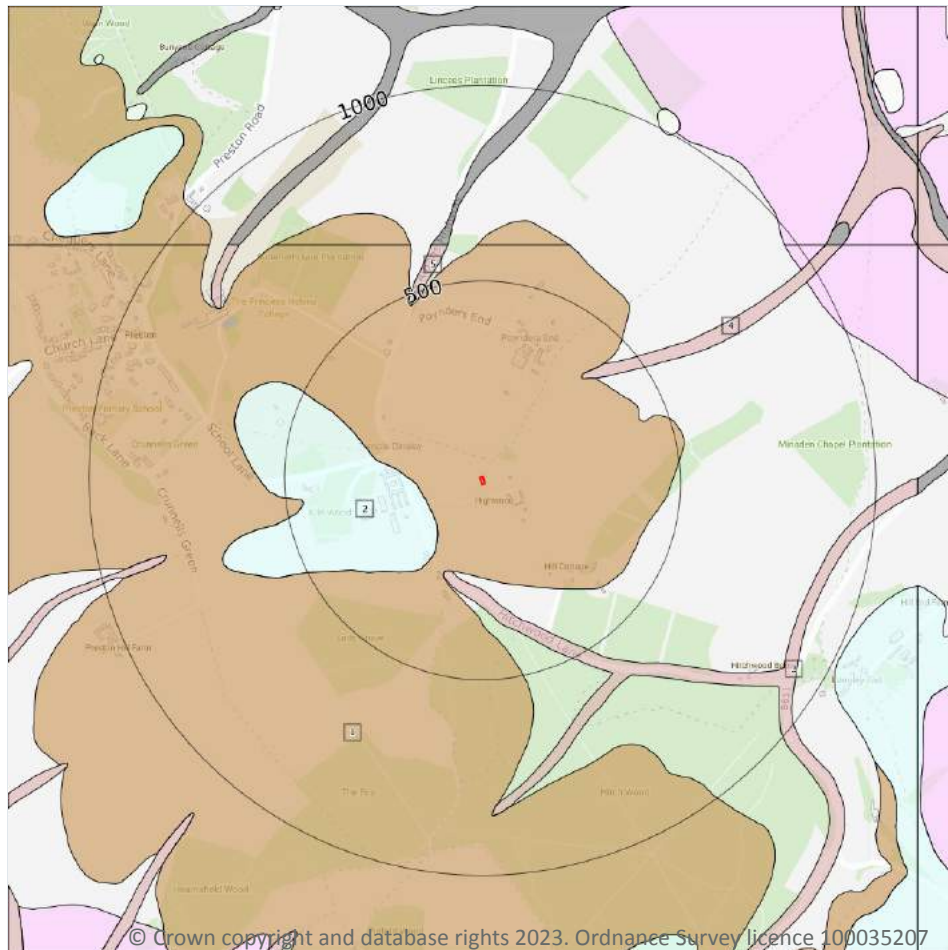
0

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.

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

5

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 66](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	CWF-XCZSV	Clay-with-flints Formation - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
2	147m SW	TILMP-DMTN	Till, Mid Pleistocene - Diamicton	Diamicton
3	235m S	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel



ID	Location	LEX Code	Description	Rock description
4	358m NE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
5	474m N	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

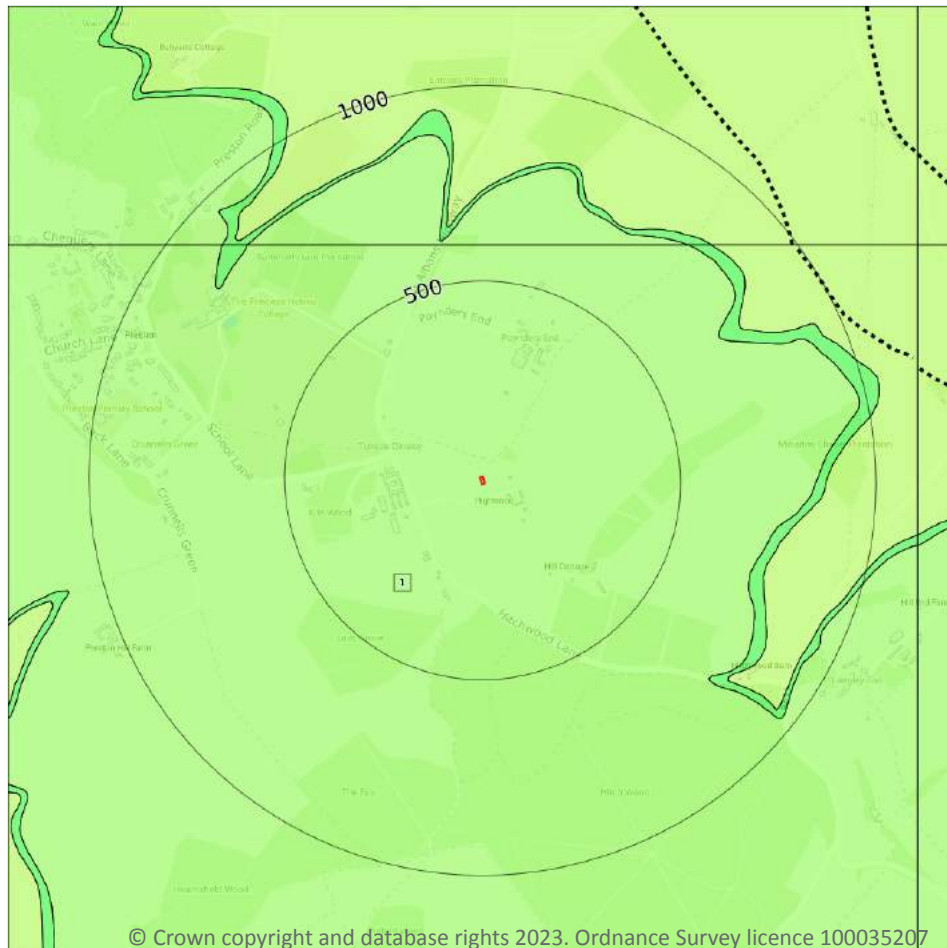
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

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

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

14.5 Bedrock geology (10k)

Records within 500m

1

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 68](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LESE-CHLK	Lewes Nodular Chalk Formation And Seaford Chalk Formation (undifferentiated) - Chalk	Santonian Age - Turonian Age

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

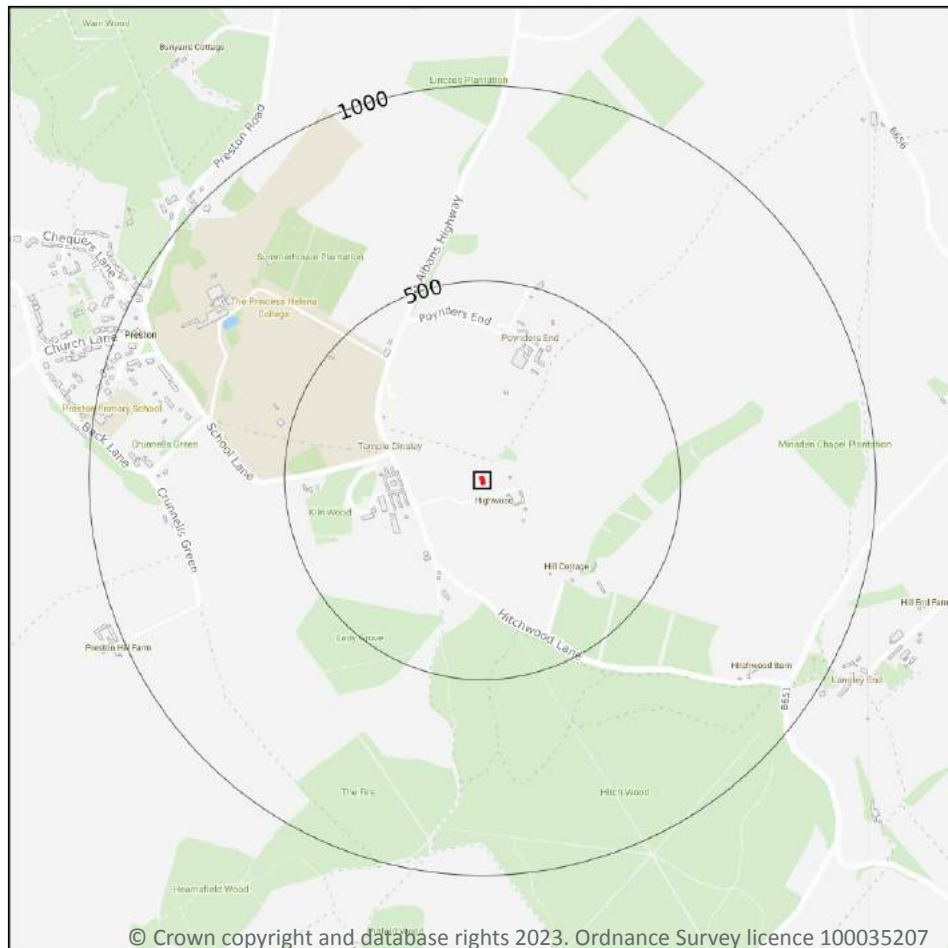
0

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 70](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW221_hitchin_v4

This data is sourced from the British Geological Survey.



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

15.2 Artificial and made ground (50k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

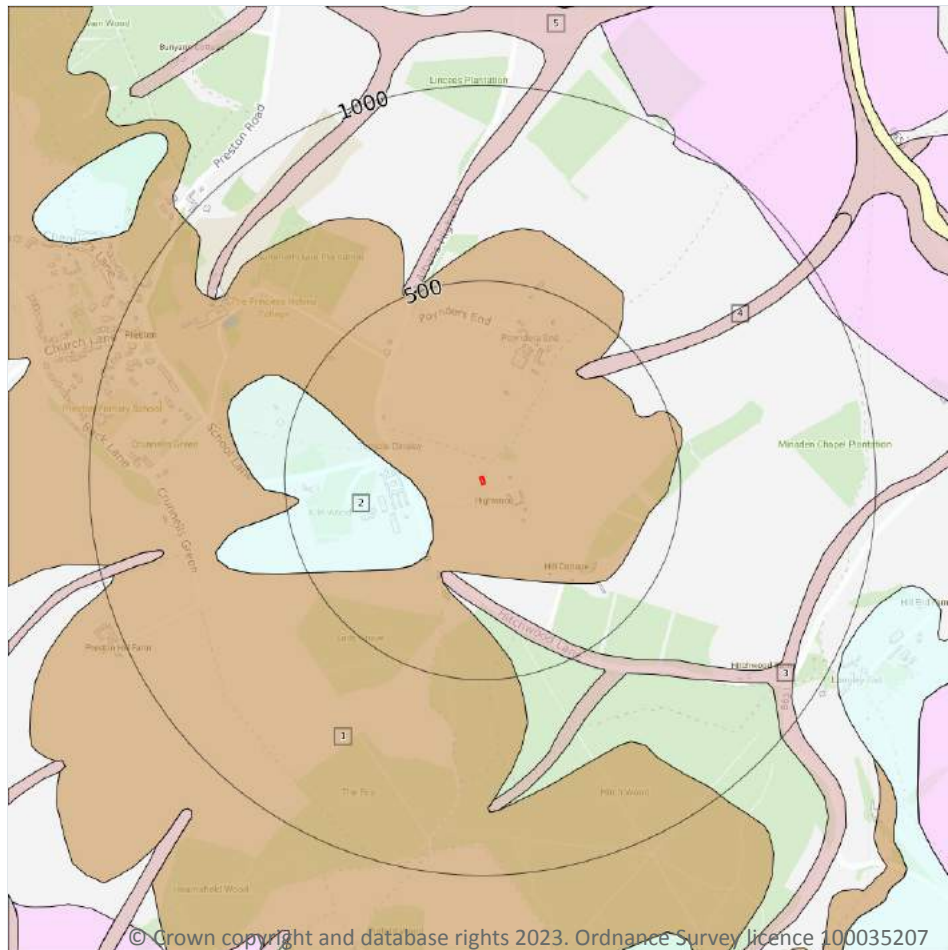
0

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

5

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 72 >](#)

ID	Location	LEX Code	Description	Rock description
1	On site	CWF-XCZSV	CLAY-WITH-FLINTS FORMATION	CLAY, SILT, SAND AND GRAVEL
2	150m W	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON
3	236m S	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
4	355m NE	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
5	498m N	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 **1**

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

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.



© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

15.8 Bedrock geology (50k)

1

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 74 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	LESE-CHLK	LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION (UNDIFFERENTIATED) - CHALK	TURONIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m**1**

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m**0**

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

This data is sourced from the British Geological Survey.



16 Boreholes

16.1 BGS Boreholes

Records within 250m

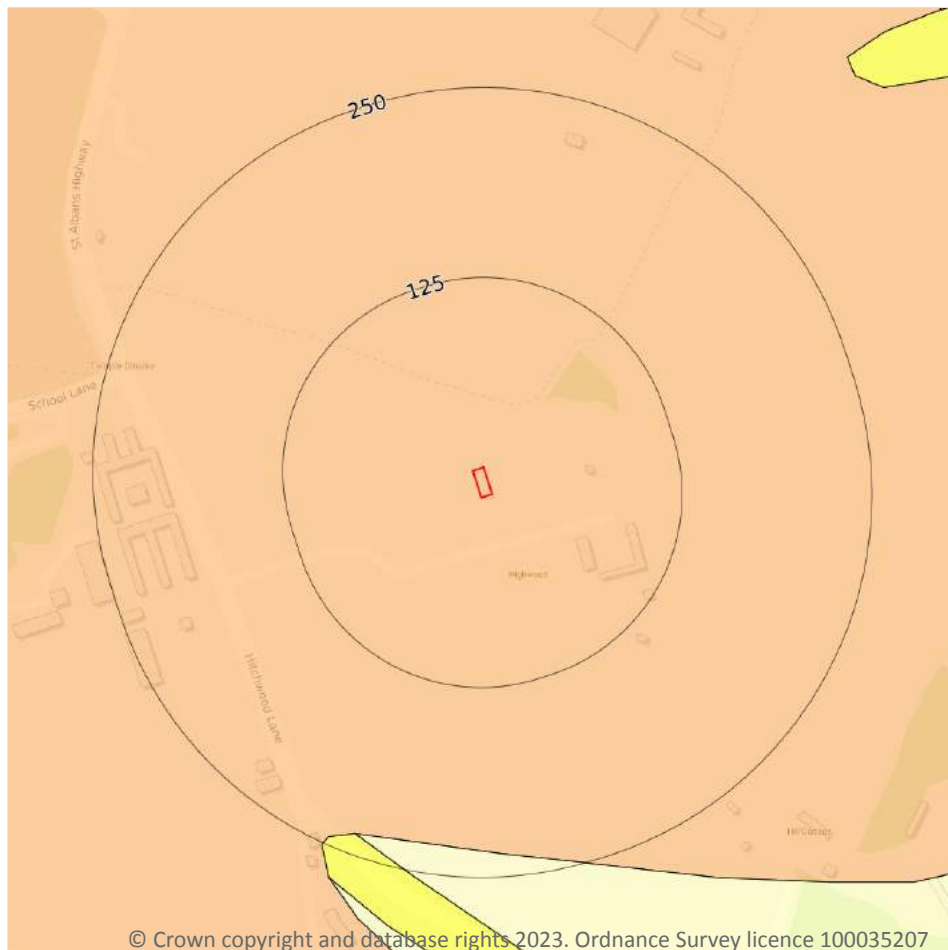
0

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.

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

1

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).

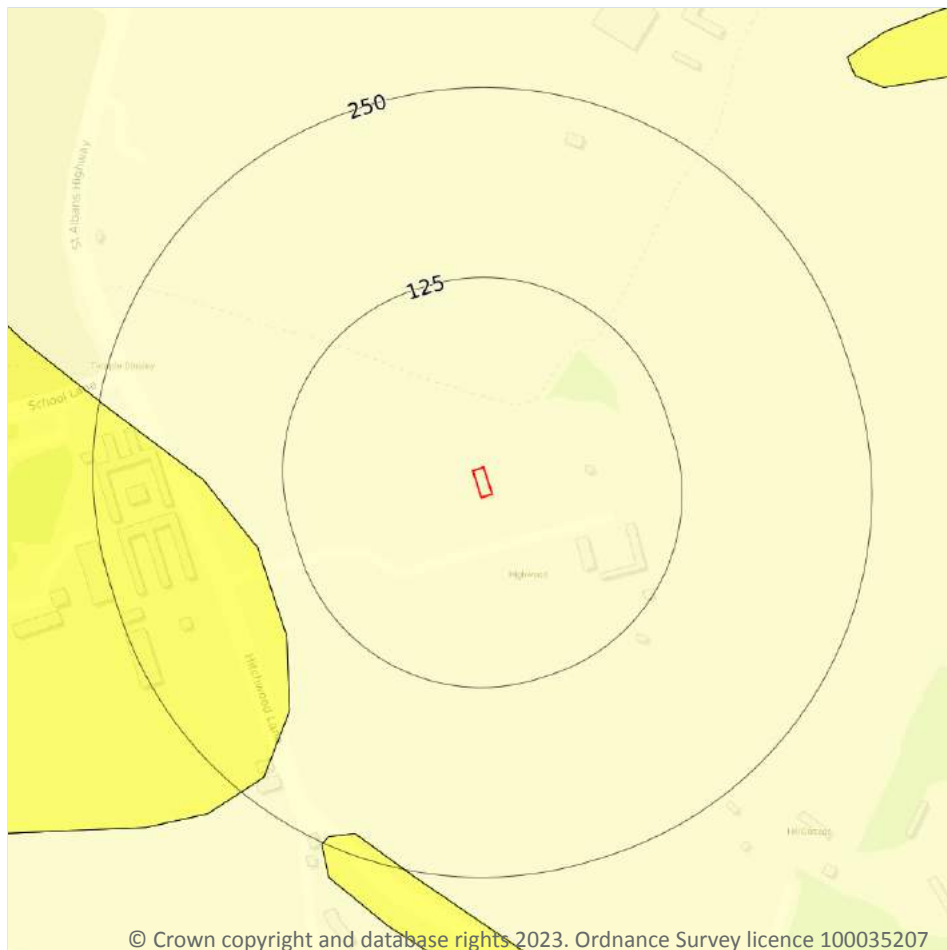
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 77 >](#)

Location	Hazard rating	Details
On site	Low	Ground conditions predominantly medium 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

© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

17.2 Running sands

Records within 50m

1

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 78 >](#)

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.

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.

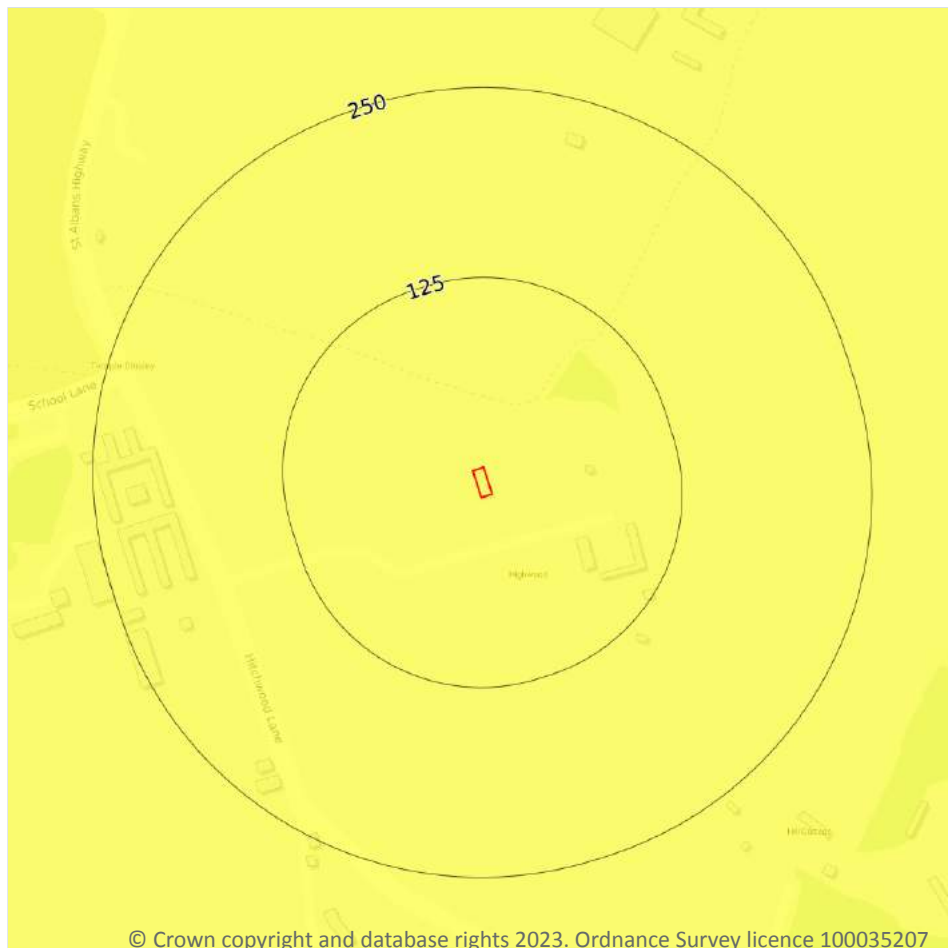
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 79 >](#)

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.

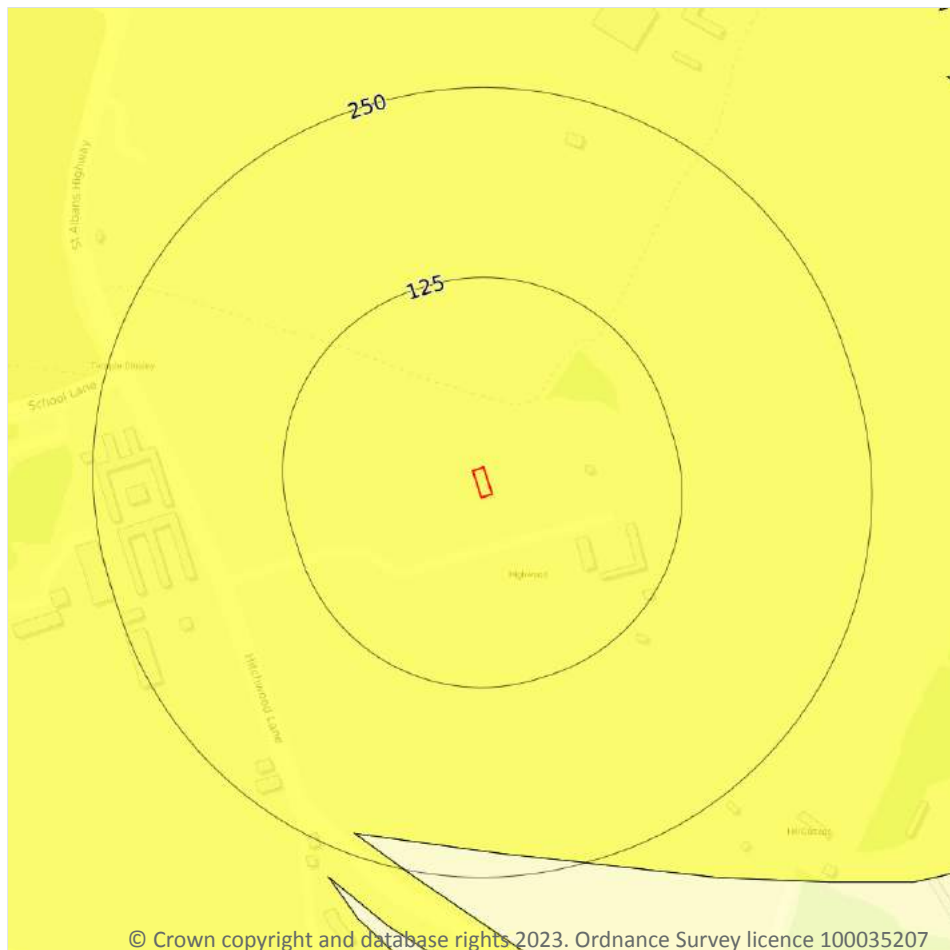
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 80 >](#)

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

1

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.

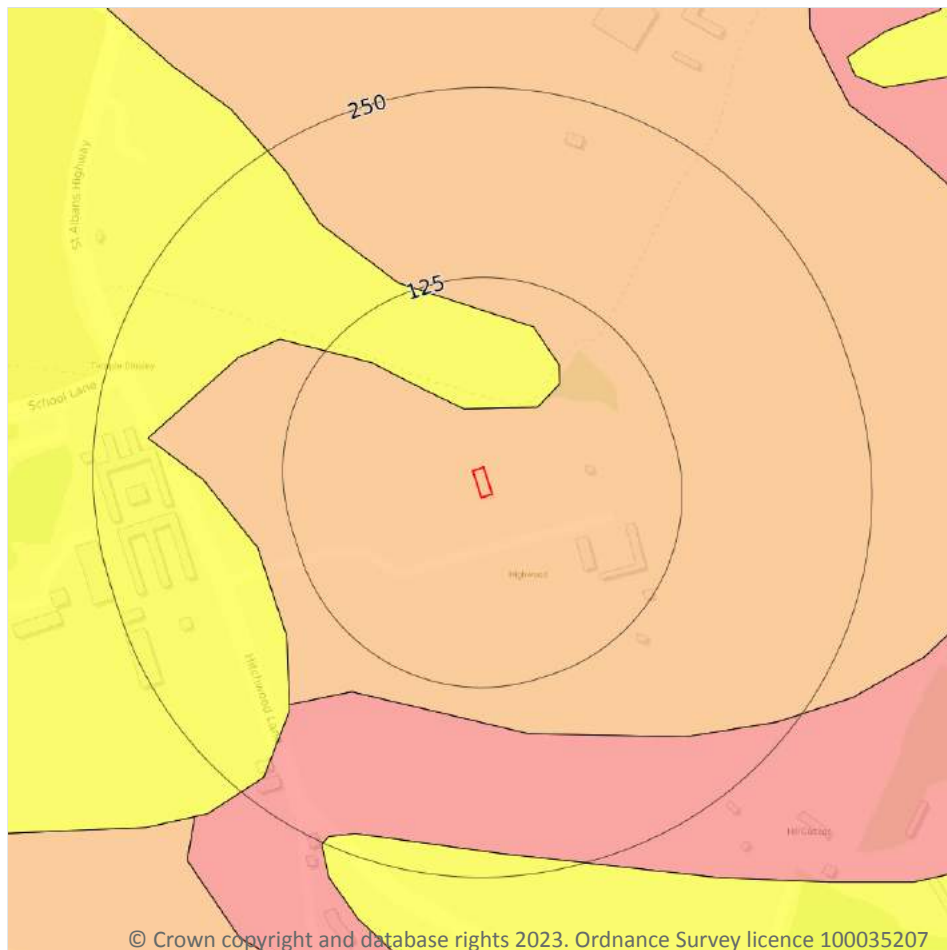
Features are displayed on the Natural ground subsidence - Landslides map on [page 81](#) >

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.

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

© Crown copyright and database rights 2023. Ordnance Survey licence 100035207

17.6 Ground dissolution of soluble rocks

Records within 50m

2

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 82](#)

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.

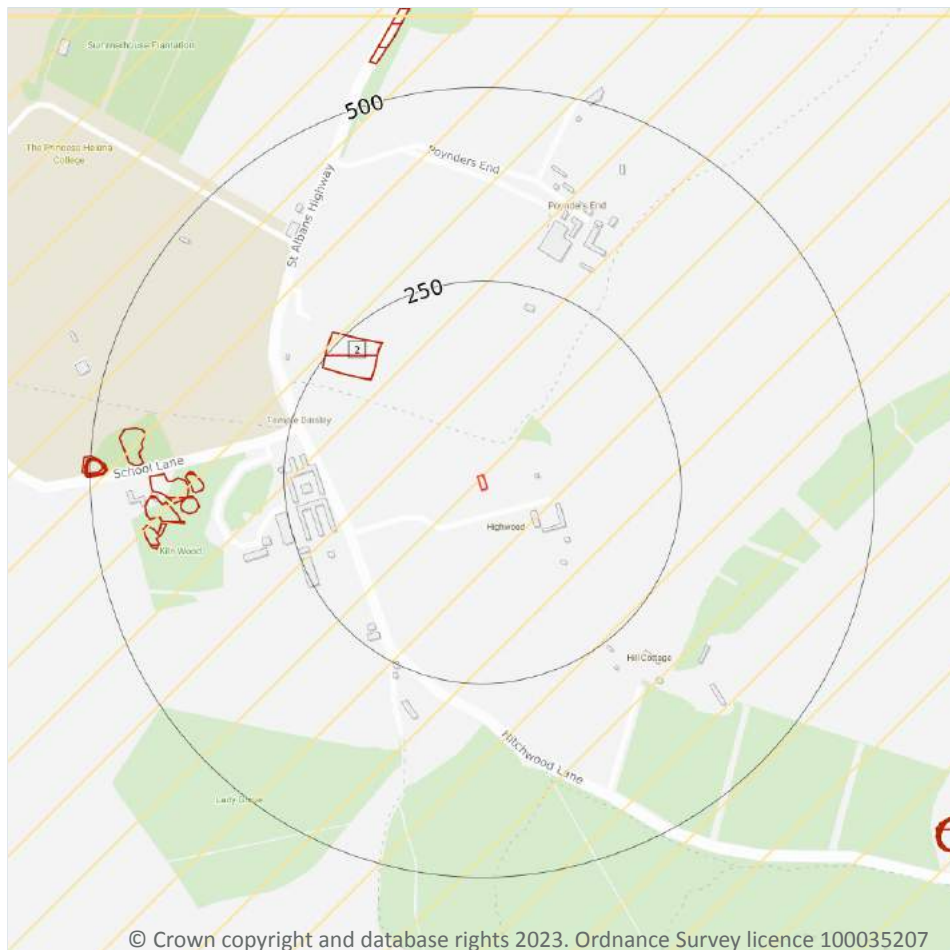


Location	Hazard rating	Details
39m N	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.

This data is sourced from the British Geological Survey.



18 Mining and ground workings



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

18.1 BritPits

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

1

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 84 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
2	186m NW	Covered Reservoir	1973	1:10000

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

2

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 84 >](#)

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.
5	592m N	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.

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

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

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

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



This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

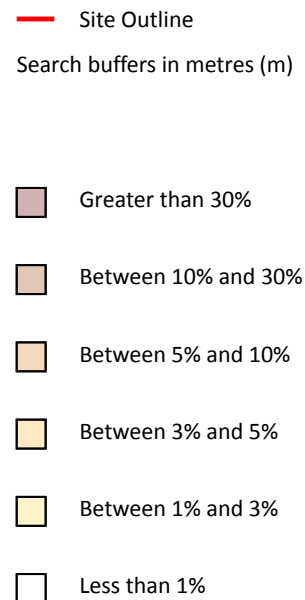
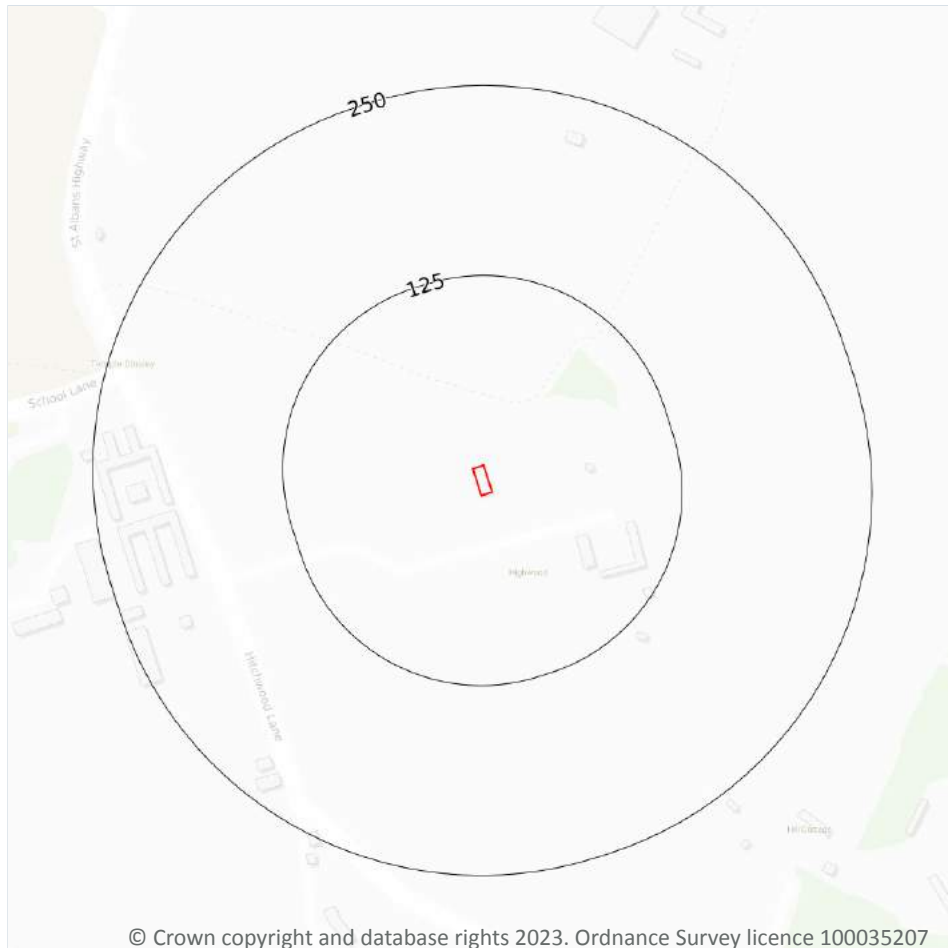
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.



20 Radon



20.1 Radon

Records on site

1

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 91](#) >

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



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

1

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 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

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**0**

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.

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	0
---------------------	---

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

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

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 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.

22.10 HS2

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

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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

