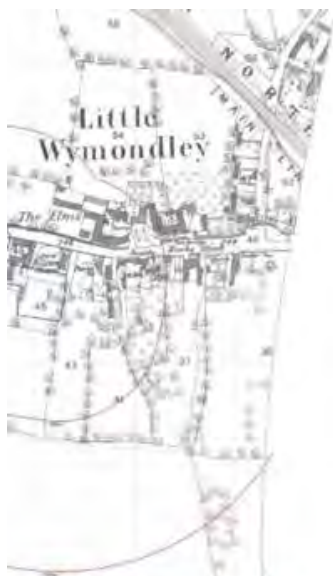




EARTH ENVIRONMENTAL
& GEOTECHNICAL

Phase I Geo-Environmental Desk Study Report

Land to the Rear of

The Croft
Stevenage Road
Little Wymondley
Hitchin
Hertfordshire
SG4 7JA

Report Ref: B4066/24/DTS

August 2024

Earth Environmental & Geotechnical (Southern) Ltd
3 Tollbridge Studios
Toll Bridge Road
Bath
BA1 7DE

Tel : 01225 858823

Email southwest@earthenvironmental.co.uk
www.earthenvironmental.co.uk

**PHASE I GEO-ENVIRONMENTAL
DESK STUDY REPORT**

LAND TO THE REAR OF:

**THE CROFT
STEVENAGE ROAD
LITTLE WYMONDLEY
HITCHIN
HERTFORDSHIRE
SG4 7JA**

REPORT REF: B4066/24/DTS

AUGUST 2024

Prepared on Behalf of:

Louise Sansom

By:

Earth Environmental & Geotechnical (Southern) Ltd
3 Tollbridge Studios
Toll Bridge Road
Bath
BA1 7DE

DISTRIBUTION:

1 electronic copy Louise Sansom

PHASE I GEO-ENVIRONMENTAL DESK STUDY REPORT

**Land to the rear of The Croft, Little Wymondley, Stevenage Road, Hitchin,
Hertfordshire SG4 7JA**

Report Reference: B4066/24/DTS

Version B.0

Date 22nd August 2024

Prepared for: Louise Sansom

Prepared by: Earth Environmental & Geotechnical (Southern) Ltd
3 Tollbridge Studios
Toll Bridge Road
Bath
BA1 7DE

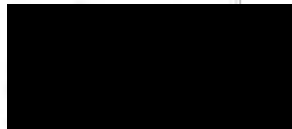
Definition of Version Code:

- D. Applied during initial drafting of the report before it has been reviewed.
- C. Applied after the report has been reviewed but before it has been approved by the Project Manager.
- B. Applied after the Project Manager has approved the report ready for issue to the client.
- A. Applied to reports after external/internal review.

The version number starts at "0" and is raised by "1" at each re-type.

Written by:

**Anne Freeman
Consultant**



Approved by:

**Simon Leat
Managing Director**

TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	BACKGROUND.....	1
1.2	PROPOSED DEVELOPMENT	1
1.3	TERMS OF REFERENCE	1
1.4	OBJECTIVES	1
1.5	SOURCES OF INFORMATION.....	1
1.6	LIMITATIONS OF THE STUDY	1
2.0	THE SITE	2
2.1	SITE LOCATION & DESCRIPTION	2
2.2	SITE UTILITIES	3
3.0	GEOLOGICAL SETTING	4
3.1	GEOLOGY.....	4
3.2	GROUND STABILITY	4
3.3	RADON POTENTIAL	5
3.4	SOIL CHEMISTRY	5
3.5	HYDROGEOLOGY & HYDROLOGY	5
3.6	POTENTIAL FLOOD RISKS	6
3.7	MINING, GROUND WORKINGS AND CAVITIES	6
4.0	ENVIRONMENTAL SETTING	7
4.1	LANDFILL & WASTE MANAGEMENT ACTIVITY	7
4.2	INDUSTRIAL LAND USE INFORMATION	7
4.3	ENVIRONMENTAL PERMITS, INCIDENTS AND REGISTERS	7
4.4	ENVIRONMENTALLY SENSITIVE SITES	8
4.5	VISUAL/CULTURAL DESIGNATIONS	8
5.0	SITE HISTORY	9
6.0	PRELIMINARY CONTAMINATION RISK ASSESSMENT	12
6.1	INTRODUCTION	12
6.2	POTENTIAL SOURCES	13
6.3	POTENTIAL RECEPTORS	13
6.4	POTENTIAL PATHWAYS.....	13
6.5	RISK ASSESSMENT	14
7.0	GEOTECHNICAL HAZARDS ASSOCIATED WITH THE PROPOSED DEVELOPMENT	15
8.0	CONCLUSIONS & RECOMMENDATIONS	16
8.1	CONCLUSIONS.....	16
8.2	RECOMMENDATIONS.....	16

LIST OF FIGURES

Figure 1	Site Location Plan
Figure 2	Aerial Photograph of Site
Figure 3	OS Map Extract 1881
Figure 4	OS Map Extract 1971
Figure 5	OS Map Extract 1993 - 1994
Figure 6	OS Map Extract 2003
Figure 7	Google Maps Image 2022

TABLES

Table 1	Soil Chemistry Records
Table 2	Soil Screening Levels
Table 3	Industrial Land Uses
Table 4	Summary of Site History
Table 5	Consequence, Probability and Risk
Table 6	Estimation of Level of Risk by Comparison of Consequence and Probability
Table 7	Preliminary Conceptual Model
Table 8	Summary of Geotechnical Hazards

APPENDICES

Appendix 1	Groundsure Report
Appendix 2	Report Limitations

1.0 INTRODUCTION

1.1 Background

Earth Environmental & Geotechnical (Southern) Ltd (EEGSL) was commissioned by Louise Sansom (the 'Client'), to undertake a Phase I Geo-Environmental Desk Study assessment at Land to the rear of The Croft, Little Wymondley in Hitchin, Hertfordshire.

1.2 Proposed Development

The proposed development is for a detached 5 bedroomed house with open garage and office space with soft landscaping and hardstanding.

1.3 Terms of Reference

EEGSL was commissioned by the Client to undertake a Phase I Geo-Environmental Desk Study for the site in accordance with the fee proposal ref. 4066, dated 12th July 2024.

1.4 Objectives

The purpose of the Desk Study is to collate available geological and environmental data for the site (and its environment) in order to provide a preliminary geotechnical and geo-environmental appraisal, together with a site specific conceptual model. This enables a preliminary assessment of geo-environmental risks to be undertaken and, if necessary, provides information for the design of a Phase 2 Ground Investigation.

1.5 Sources of Information

The Phase 1 Desk Study comprises of a review of the following information sources:

- British Geological Survey online maps.
- Google Earth imagery.
- Historical USAAF Aerial Photographs.
- Environment Agency online data.
- Historical Ordnance Survey maps.
- Enviro+Geo Insight Report, 13th August 2024, ref GS-O87-PXB-RDX-FNR.

1.6 Limitations of the Study

The report is written in the context of an agreed scope of work and budget and should not be used in a different context. New information, improved practices or changes in legislation may require a reinterpretation of the report in whole or in part. EEGSL reserve the right to amend either conclusions or recommendations in light of any further information that may become available. The report is provided for the sole use by the client and is confidential to them.

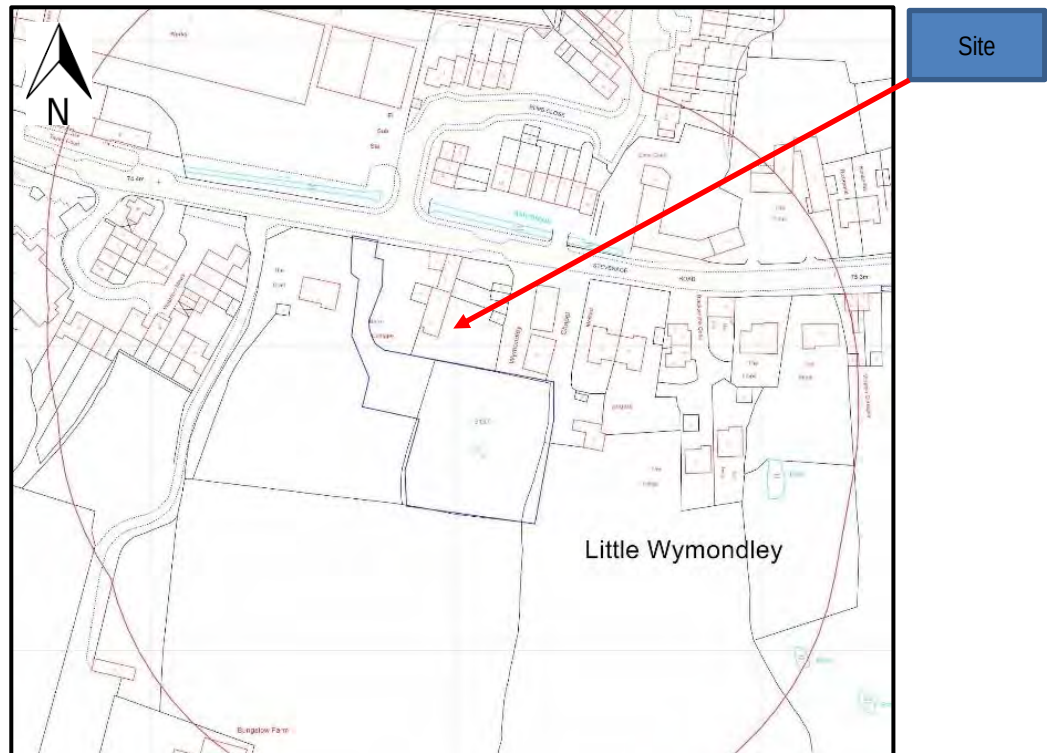
Recommendations within this report are also based on records produced by others. It is assumed this information is accurate and no liability can be accepted for the accuracy of this information.

2.0 THE SITE

2.1 Site Location & Description

The site is located towards the eastern end of Stevenage Road, Hitchin approximately 6km northwest of Stevenage in Hertfordshire at approximate National Grid Reference 521300 227375, and postcode SG4 7JA. The site location is shown in Figure 1 below.

Figure 1 – Site Location Plan



The site is currently occupied by soft landscaped areas, trees and dense overgrowth. The site and surrounding area are generally flat with a gentle slope upwards to the south, at the approach from Stevenage Road. Figure 2 overleaf shows an aerial photograph of the site and surrounding area.

Figure 2 - Aerial Photograph of Site



The boundaries of the site can be described as thickly lined trees and hedging. To the north are residential gardens, to the east is a private access driveway, to the south is pastureland and to the west trees and dense overgrowth.

2.2 Site Utilities

A site service plan has been not provided by the client. The status of all services should be checked with the statutory providers prior to any development (including site investigation) commencing.

3.0 GEOLOGICAL SETTING

The geology of the site is covered by British Geological Survey (BGS) online data and the site-specific Groundsure Insight Report (Appendix 1).

The following sections are generally limited to locations within 250m of the site boundary unless it is considered that installation or activities beyond that range could potentially have an impact on the site or its redevelopment.

3.1 Geology

The Groundsure report indicates the site is not underlain by artificial ground (Made Ground).

According to the British Geological Survey (BGS) the site is directly underlain by superficial deposits of the Lowestoft Formation overlying the Holywell Nodular Chalk Formation and New Pit Chalk Formation of the White Chalk Subgroup, of Cretaceous age.

The Lowestoft Formation is described as comprising chalky till, together with outwash sands and gravels, silts and clays. The till is characterised by its chalk and flint content.

The Holywell Nodular Chalk Formation is described as chalk with flint, with discrete marl seams, nodular chalk, sponge-rich and flint seams throughout.

There is a buried channel or valley, containing superficial deposits, 23m to the southwest of the site.

There are 8 historical BGS borehole records within 250m of the site at distances ranging from 44m to 217m. The closest record with available information on the conditions is located 44m to the north, reference TL22NW302.

The borehole encountered the following conditions:

0.00-0.15m	Stone chippings.
0.15-0.20m	Concrete FILL.
0.20-0.35m	Brick fragment FILL.
0.35-2.80m	Soft to firm sandy organic CLAY.
2.80-3.60m	Firm grey brown calcareous sandy silty CLAY.
3.60-7.10m	Stiff brown sandy silty calcareous CLAY with chalk/flint gravel.
7.10-10.40m	Brown clayey sandy GRAVEL.

3.2 Ground Stability

The site is located in an area where the hazard ratings for ground stability are as follows:

Shrink Swell Clays	Very Low to Low
Running Sands	Very Low to Low
Compressible Deposits	Negligible to Moderate
Collapsible Deposits	Negligible to Very Low
Landslides	Very Low
Ground Dissolution of Soluble Rocks	Very Low

3.3 Radon Potential

The property is in a Radon Affected Area as defined by the Health Protection Agency, where less than 1% of properties affected are above the Action Level of exposure. Therefore, no radon protection measures are required.

3.4 Soil Chemistry

There is 2 estimated soil chemistry record on site, the results of the onsite records are shown in Table 1 below.

Table 1 – Soil Chemistry Records

Location	Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15-25mg/kg	100mg/kg	60mg/kg	1.8mg/kg	40-90mg/kg	15-45mg/kg

All the above chemicals: (arsenic, cadmium, chromium, nickel) have estimated concentrations on site that are below the recognised screening levels based on Defra C4SL Health Criteria Values^(March 2014) and LQM/CIEH Sutable 4 Use Levels⁽²⁰¹⁵⁾ for the relevant residential setting as shown in Table 2 below.

Table 2 – Soil Screening Levels

Determinand	C4SL/S4UL Levels (mg/kg)*		
	Residential with homegrown produce	Residential without homegrown produce	Commercial
Arsenic	37	40	640
Cadmium	26	149	410
Chromium	910	910	8600
Lead	200	310	2300
Nickel	180	180	980

3.5 Hydrogeology & Hydrology

The superficial deposits on site are classified by the Environment Agency (EA) as a Secondary A Aquifer. The EA definition of which is as follows:

“Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally formerly classified as minor aquifers.”

The Holywell Nodular Chalk Formation is classified by the Environment Agency (EA) as a Principal Aquifer. The EA definition of which is as follows:

“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.”

There are no active groundwater, potable or historical water abstraction licenses, or source protection zones within 250m of the site.

The superficial deposits have a medium groundwater vulnerability and the bedrock a low groundwater vulnerability.

There is a surface water feature, inland river not influenced by normal tidal action, 15m north of the site, Ash Brook, watercourse contains water year round (in normal circumstances), watercourse is partially underground.

The site is within the surface water body catchment Purwell, groundwater body is Upper Bedford Ouse Chalk.

3.6 Potential Flood Risks

The proposed entrance to the site is located in an area of medium risk from flooding. The remainder of the site is low risk.

The site is within Flood Zone 2 – Fluvial/Tidal Models, and Flood Zone 3 – Fluvial Models.

The surface water and groundwater flooding risk in the area of the proposed entrance is high.

There is 1 historical flood event recorded on site described as a fluvial flood in September 1968.

3.7 Mining, Ground Workings and Cavities

There are 6 surface ground workings record on site, the closest refers to a reservoir 170m SW (1946). There are no records of underground workings.

There are no BritPits record located within 250m of the site.

There are no recorded underground mining extents, historical mineral planning areas, researched mining records, mining record office plans, BGS mine plans within 250m of the site.

There is 1 non-coal mining record on site, which refers to chalk mining. The Groundsure report describes this as underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions is unlikely and are at a level where they need not be considered.

The assessment site is not located within gypsum, brine, tin, or clay mining areas.

4.0 ENVIRONMENTAL SETTING

Environmental conditions are covered by Environment Agency (EA) and British Geological Survey (BGS) online data, and the site-specific Groundsure Insight report (Appendix 1).

The following sections are generally limited to locations within 250m of the Site boundary unless it is considered that installations or activities beyond that range could potentially have an impact on the site or its redevelopment.

4.1 Landfill & Waste Management Activity

There is no record of active or recent landfills on the site.

According to the Groundsure Report there is 1 historical landfill recorded 191m south, C J Pryor Earth Moving Contractors Limited (1993).

There are no waste exemption records, waste treatment, transfer or disposal sites, or other waste sites are noted within 250m of the site.

4.2 Industrial Land Use Information

Historical and current industrial land usage on-site and within 250m of the site is summarised in Table 3 below:

Table 3- Summary of Industrial Land Use

Description	On-Site	Records within 250m of site	Details of nearest Record
Historical Industrial land use	0	8	Nearest: 21m N Unspecified Works (1980)
Historical Tanks	0	4	Nearest 58m N Tanks (1971-1991))
Historical Energy Features	0	10	Nearest: 47m N Electricity Substation (1994-1996)
Historical Petrol Station	0	1	Nearest: 58m NW Filling Station (1971-1991)
Historical Garage	0	0	-
Historical Military Land	0	0	-
Historical Railway and Tunnel Features	0	3	Nearest: 96m E Tramway Sidings (1883)
Historical Railways	0	0	-
Recent Industrial Land Use	0	9	Nearest: 20m NE Pest & Vermin Control
Current/Recent Petrol Stations	0	0	-
Electricity Cables	0	0	-
Gas Pipelines	0	0	-
Current Railway Features	0	0	-

4.3 Environmental Permits, Incidents and Registers

There are no environmental permits, and registers within 250m of the site other than

- 2 recorded Licensed Discharges to controlled waters, the nearest being 6m N Elms Depot Wymondley, Hitchin – Trade Discharges Process Effluent into Ash Brook in August 1984.

- Records also show 2 Pollution incidents (EA/NRW) the nearest 134m NW, pollutants of oil and fuel in May 2003 classed as Category 3 (Minor).

4.4 Environmentally Sensitive Sites

There are no records of sites of special scientific interest, conserved wetland sites, special areas of conservation, special protection areas, local or national nature reserves, or designated ancient woodlands within 250m of the assessment site.

The site is in 2 nitrate vulnerable zones, Great Ouse NVZ Surface Water, and Anglian Chalk Groundwater.

There is an area of Green Belt within 250m of the site, 208m SE North Herefordshire.

4.5 Visual/Cultural Designations

There are no world heritage sites, areas of outstanding natural beauty, national parks, scheduled ancient monuments or registered parks and gardens within 250m of the site.

There is record of 9 listed building within 250m of the site, the nearest are, 13m northwest The Croft (1987), 20m north Boro Cottages and 43m east Blacksmiths Cottages in Blacksmith's Yard.

There is a Countryside Stewardship Scheme (Middle Tier) within 250m of the site, 93m west.

The Priority Habitat Inventory records a Traditional Orchard 71m west of the site.

The site is designated as good to moderate Grade 3 agricultural land.

5.0 SITE HISTORY

The historical development of the site has been determined by reference to historical plans and Google Earth imagery. The reviewed historical plans comprise only readily available records and may be limited; however, the information available to date indicates that additional searches are unlikely to add to our understanding of the site. The earliest available historical mapping covering the site is from 1881. The site history is summarised in Table 4 below.

Table 4 - Summary of Site History

Date	On Site	Surrounding Land Use (Within 250m of Site)
1881	Site is within open field with some trees.	Dwellings to the NW, N and NE.
1971	Site occupied by trees and overgrowth.	Works and residential development to N. Residential development to NE and E.
1993-1994	No significant change.	No significant change.
2003	Denser with trees and overgrowth.	No significant change.
2022	No significant change.	No significant change.

Selected extracts from historical maps are presented in the following figures.

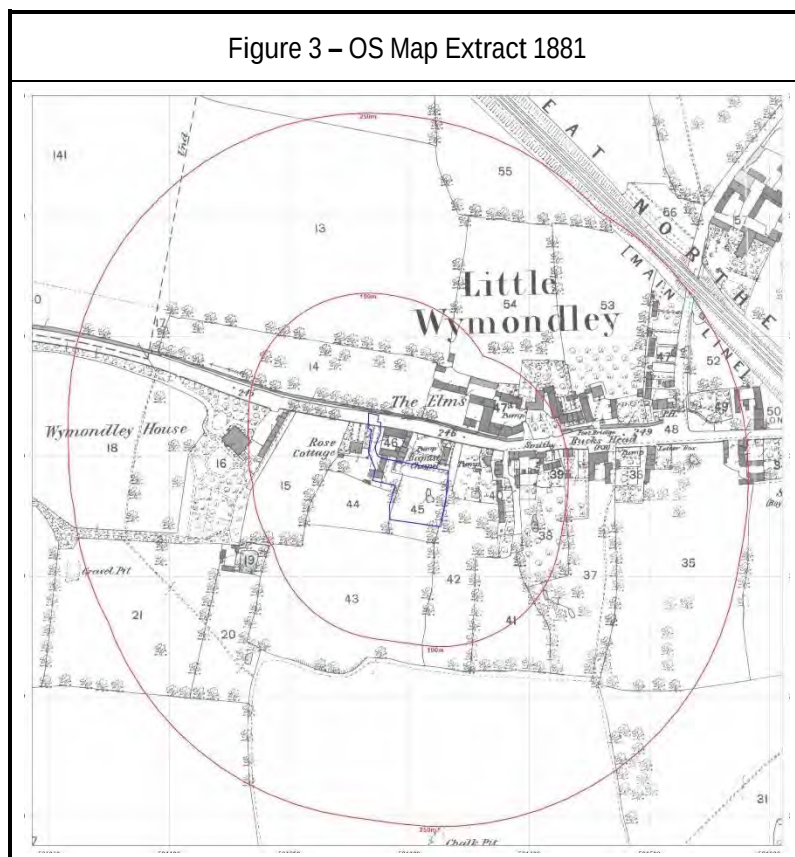


Figure 4 – OS Map Extract 1971



Figure 5 – OS Map Extract 1993 - 1994



Figure 6 – OS Map Extract 2003



Figure 7 – Google Maps Image 2022



6.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

6.1 Introduction

The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site based on the above desk study information as defined by DEFRA and the EA Model Procedures for the Management of Land Contamination, CLR11⁽²⁰⁰⁴⁾.

Table 7 provides a Preliminary Conceptual Model (PCM) which considers the source-pathway-receptor linkages present alongside the likelihood, severity and risk level as defined within Table 5 and Table 6 below. The assessment of probability, a modified risk table, and certain consequence definitions are based on CIRIA C552 and CLR11.

The table considers whether a pollution linkage is potentially present and provides a preliminary qualitative assessment of risk based on the information currently available. Where a possible linkage is identified, it does not necessarily mean that a significant risk exists but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

The PCM/PRA is based on a residential end use.

Table 5 - Consequence, Probability and Risk

Probability	Consequence,	Risk
High Likelihood- There is a pollution linkage and an event either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution	Very High – acute risk to the human health likely to result in significant harm. Risk of severe or irreversible effect on ground/surface water quality. Catastrophic damage to buildings / property.	Very High – there is a high potential that the source-pathway-receptor scenarios may give rise to harm to human health or the environment and remedial action is likely to be required.
Likely – there is a pollution linkage and all the elements are present, which means that it is probable an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.	High – Severe or irreversible effect on human health. Temporary severe or irreversible effect on ground/surface water quality. Reduction of water quality rendering groundwater or surface water unfit to drink and/or substantial adverse impact on groundwater dependant environmental receptors.	High – it is likely that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, which may require remediation and/or control measures to mitigate risks
Low likelihood– there is a pollutant linkage and circumstances are possible for an event could occur. However, it is by no means certain that even over a longer period such event would take place, and is less likely in the shorter term	Moderate – Long term or short term moderate effect on human health. Moderate effect on ground/surface water quality, reversible with time. Reduced reliability of a supply at a groundwater or surface water abstraction source	Moderate – it is possible that the source-pathway-receptor scenarios may give rise to an impact on human health or the environment, however it is either relatively unlikely that such would be severe, or if any harm were to occur it is more likely that harm would be mild.
Unlikely – there is a pollution linkage, but circumstances are such that it is doubtful that an event would occur even in the very long term.	Low – Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc.) Slight effect on ground/surface water quality, reversible with time. Marginal reduced reliability of a supply at a groundwater or surface water abstraction source.	Low – it is possible that harm could arise at the source, however it is likely that they would at worst be mild.
		Very Low – it is unlikely that the source-pathway-receptor scenarios will give rise to an impact on human health or the environment.

Table 6 - Estimation of Level of Risk by Comparison of Consequence and Probability

		Consequence			
		High	Moderate	Low	Very low
Probability	High Likelihood	Very High	High risk	Moderate risk	Moderate to low risk
	Likely	High risk	Moderate risk	Moderate to low risk	Low risk
	Low Likelihood	Moderate risk	Moderate to low risk	Low risk	Very low risk
	Unlikely	Moderate to low risk	Low risk	Very low risk	Very low risk

6.2 Potential Sources

Based on the findings of the report the following potential sources of contamination have been identified potential sources of contamination on or close to the site have not been recorded.

6.3 Potential Receptors

The following receptors have been considered as part of this assessment.

- Current land users.
- Adjacent land users.
- Future land users.
- Construction workers during site development works.

6.4 Potential Pathways

The following pathways have been considered as part of this assessment.

- Direct / dermal contact, ingestion, inhalation pathways of potentially contaminated soils.
- Vertical or lateral migration of contamination (including ground gas/vapours) on and off site.
- Vertical or horizontal migration of contamination via leaching into the underlying shallow groundwater.

Table 7 - Preliminary Conceptual Model

	Pathway	Receptor	Probability	Consequence	Risk	Comment
Contamination of the ground beneath site due to current and historical use	Dermal contact, ingestion and inhalation of soils dust	Current Site Users	Unlikely	Low	Very Low	The site is currently disused. No potential sources have been identified on or close to the site and previous historical usage does not include potential contaminative processes. Based on the above and anticipated ground conditions, it is considered the risk to current site users from contamination is VERY LOW.
		Future Site users	Unlikely	Moderate	Low	No potential sources have been identified on or close to the site and previous historical usage does not include potential contaminative processes. Based on the above and anticipated ground conditions, it is considered the risk to future site users from contamination is LOW.
		Construction Workers	Unlikely	Moderate	Low	It is considered that a LOW risk is likely to be present to construction workers during the construction phase of development based on the above information. In addition, exposure duration will be short-term only, and assuming appropriate health and safety measures are adopted (in line with CDM and other relevant health and safety guidance) this will further mitigate any risk.
	Vertical or lateral migration of ground gasses	Current Site Users	Unlikely	Low	Very Low	Given the site is currently disused and based on the anticipated ground conditions beneath the site and previous site usage, it is considered the risk to current users from contamination is VERY LOW.
		Future land users	Unlikely	Moderate	Low	Based on the site history and anticipated ground conditions, it is considered the risk to future site users from contamination is LOW.
		Construction Workers	Unlikely	Moderate	Low	The risk to construction workers via direct exposure is considered to be LOW based on previous usage and anticipated ground conditions.
	Vertical or horizontal migration of contamination via leaching into the underlying shallow groundwater	Controlled Waters	Unlikely	Low	Very Low	Based on historical usage, anticipate ground conditions it is considered the risk to controlled waters is LOW.

6.5 Risk Assessment

The site has not been developed for industrial purposes. There are no records of potential contaminative previous usage or potential sources of contamination on or close to the site.

Based on the above, information, the site has been given an overall risk rating of **LOW**.

7.0 GEOTECHNICAL HAZARDS ASSOCIATED WITH THE PROPOSED DEVELOPMENT

In addition to the environmental hazards there are also geotechnical hazards associated with the stability of the ground including load bearing capacity, slope stability and effects of ground mining activities. Local Authorities follow NPPF (2012) which requires that a site be suitable for its new use taking into account of ground conditions and land instability, including from natural hazards to former activities such as mining. A summary of the geotechnical considerations is provided below in Table 8.

Table 8 – Summary of Geotechnical Hazards

Geohazards:	
Highly Compressible Deposits	Negligible across the majority of the site. Moderate risk in area of entrance to the site (northernmost area) which could affect road construction.
Collapsible Soils	Negligible to very low
Swelling Clay	Very Low to Low
Running Sand	Very Low to Low
Ground Dissolution	Negligible
Landslip	Very Low
Mining & Quarrying	Very Low
Geotechnical Design Considerations:	
Site Clearance	Site clearance likely to be required.
Trees	Trees are on site which could affect foundation design.
Existing Buildings/Obstructions	No other buildings/obstructions on site.
Foundations	Conventional shallow depth strip/pad foundations could be suitable for new development, depending on the strength profile of the underlying soils and anticipated structural loadings. All foundations will need to be designed in accordance with NHBC Standards building near trees.
Floor Slabs	An intrusive geotechnical investigation is recommended prior to any construction works to identify the most suitable slab design for the on-site ground conditions.
Groundwater	Exact groundwater conditions are not known at this stage. For more detailed knowledge of the groundwater regime, an intrusive geotechnical investigation would be needed. However, it is recorded that the bedrock beneath the site is a principal aquifer. The northernmost part of the site is located in a flood risk area.
Earthworks	Extensive earthworks are unlikely for the proposed development.
Slopes	The site is generally flat and low-lying.
Retaining Walls	There are no retaining walls on site.
Chemically aggressive ground conditions	There is a low potential for chemically aggressive ground conditions on site. However, an intrusive geotechnical investigation would be necessary to confirm this.

8.0 CONCLUSIONS & RECOMMENDATIONS

8.1 Conclusions

At the start of historical mapping in 1881 the site was occupied by an open field and trees and the site has remained largely unchanged until present day.

It is understood that the proposed development will be for residential purposes.

There is a low potential for contamination to be present in the ground.

The site is recorded to be underlain by superficial Lowestoft Formation deposits overlying Holywell Nodular Chalk Formation and New Pit Chalk Formation, which is a principal aquifer.

The site is not located in a Radon Affected Area. Radon protection measures will not be required.

The overall risk from soil contamination to end users and construction workers is concluded to be **VERY LOW TO LOW**.

The overall risk to controlled waters is concluded to be **LOW**.

The risk from ground gas to end users and construction workers is **LOW**.

8.2 Recommendations

An intrusive investigation should be undertaken to establish geotechnical parameters for the design of foundations, floor slabs and pavement construction for the proposed new structures and surrounding area.

As part of the geotechnical investigation, it is recommended that a contamination assessment of the on-site soils (particularly in proposed garden areas) is undertaken to check for levels of contamination, to satisfy planning requirements.

APPENDIX 1

GROUNDSURE REPORT

LAND TO REAR OF THE CROFT, LITTLE WYMONDLEY, HERTFORDSHIRE, SG4 7JA

Order Details

Date: 13/08/2024
Your ref: B4066
Our Ref: GS-O87-PXB-RDX-FNR

Site Details

Location: 521300 227375
Area: 0.28 ha
Authority: [North Hertfordshire District Council](#) ↗



Summary of findings

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

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#) [Insight User Guide](#) ↗

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	1	7	16	-
17 >	1.2 >	Historical tanks >	0	0	4	8	-
17 >	1.3 >	Historical energy features >	0	1	9	4	-
18 >	1.4 >	Historical petrol stations >	0	0	1	0	-
19 >	1.5 >	Historical garages >	0	0	0	2	-
19	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
20 >	2.1 >	Historical industrial land uses >	0	1	8	20	-
22 >	2.2 >	Historical tanks >	0	0	6	14	-
23 >	2.3 >	Historical energy features >	0	2	14	8	-
24 >	2.4 >	Historical petrol stations >	0	0	2	0	-
24 >	2.5 >	Historical garages >	0	0	0	5	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
25	3.1	Active or recent landfill	0	0	0	0	-
25	3.2	Historical landfill (BGS records)	0	0	0	0	-
26	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
26 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	1	2	-
27	3.5	Historical waste sites	0	0	0	0	-
27 >	3.6 >	Licensed waste sites >	0	0	0	1	-
27 >	3.7 >	Waste exemptions >	0	0	0	15	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
30 >	4.1 >	Recent industrial land uses >	0	2	7	-	-
31	4.2	Current or recent petrol stations	0	0	0	0	-
31 >	4.3 >	Electricity cables >	0	0	0	2	-
32	4.4	Gas pipelines	0	0	0	0	-
32	4.5	Sites determined as Contaminated Land	0	0	0	0	-



32	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
32	4.7	Regulated explosive sites	0	0	0	0	-
32	4.8	Hazardous substance storage/usage	0	0	0	0	-
33	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
33	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
33	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
33	4.12	Radioactive Substance Authorisations	0	0	0	0	-
33 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	1	1	0	-
34	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
34	4.15	Pollutant release to public sewer	0	0	0	0	-
34	4.16	List 1 Dangerous Substances	0	0	0	0	-
35	4.17	List 2 Dangerous Substances	0	0	0	0	-
35 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	2	1	-
35	4.19	Pollution inventory substances	0	0	0	0	-
36	4.20	Pollution inventory waste transfers	0	0	0	0	-
36	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
37 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
39 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
40 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
41 >	5.4 >	<u>Groundwater vulnerability- soluble rock risk ></u>	Identified (within 0m)				
42	5.5	Groundwater vulnerability- local information	None (within 0m)				
43 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	1	4
45 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	2
45 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	1	1
46 >	5.9 >	<u>Source Protection Zones ></u>	1	0	2	0	-
47	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
48 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	4	16	-	-



50 >	6.2 >	Surface water features >	0	0	1	-	-
50 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
51 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
51 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
52 >	7.1 >	Risk of flooding from rivers and the sea >	High (within 50m)				
53 >	7.2 >	Historical Flood Events >	1	0	0	-	-
53	7.3	Flood Defences	0	0	0	-	-
53	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
54	7.5	Flood Storage Areas	0	0	0	-	-
55 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
56 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
57 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
59 >	9.1 >	Groundwater flooding >	High (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
60	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
61	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
61	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
61	10.4	Special Protection Areas (SPA)	0	0	0	0	0
61	10.5	National Nature Reserves (NNR)	0	0	0	0	0
62	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
62 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	2
62	10.8	Biosphere Reserves	0	0	0	0	0
62	10.9	Forest Parks	0	0	0	0	0
63	10.10	Marine Conservation Zones	0	0	0	0	0
63 >	10.11 >	Green Belt >	0	0	1	0	2
63	10.12	Proposed Ramsar sites	0	0	0	0	0



63	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
64	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
64	10.15	Nitrate Sensitive Areas	0	0	0	0	0
64 >	10.16 >	Nitrate Vulnerable Zones >	2	0	0	0	3
65 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
66	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
67	11.1	World Heritage Sites	0	0	0	-	-
68	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
68	11.3	National Parks	0	0	0	-	-
68 >	11.4 >	Listed Buildings >	0	3	6	-	-
69	11.5	Conservation Areas	0	0	0	-	-
69	11.6	Scheduled Ancient Monuments	0	0	0	-	-
69	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
70 >	12.1 >	Agricultural Land Classification >	Grade 2 (within 250m)				
71	12.2	Open Access Land	0	0	0	-	-
71	12.3	Tree Felling Licences	0	0	0	-	-
71	12.4	Environmental Stewardship Schemes	0	0	0	-	-
72 >	12.5 >	Countryside Stewardship Schemes >	0	0	1	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
73 >	13.1 >	Priority Habitat Inventory >	0	0	2	-	-
74	13.2	Habitat Networks	0	0	0	-	-
74	13.3	Open Mosaic Habitat	0	0	0	-	-
74	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
75 >	14.1 >	10k Availability >	Identified (within 500m)				
76 >	14.2 >	Artificial and made ground (10k) >	0	0	4	12	-
78 >	14.3 >	Superficial geology (10k) >	2	2	8	18	-

80	14.4	Landslip (10k)	0	0	0	0	-
81 >	14.5 >	Bedrock geology (10k) >	1	0	0	0	-
82 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	0	1	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
83 >	15.1 >	50k Availability >	Identified (within 500m)				
84 >	15.2 >	Artificial and made ground (50k) >	0	0	4	0	-
85	15.3	Artificial ground permeability (50k)	0	0	-	-	-
86 >	15.4 >	Superficial geology (50k) >	2	2	4	6	-
87 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
87	15.6	Landslip (50k)	0	0	0	0	-
88	15.7	Landslip permeability (50k)	None (within 50m)				
89 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
90 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
90 >	15.10 >	Bedrock faults and other linear features (50k) >	0	1	0	1	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
91 >	16.1 >	BGS Boreholes >	0	1	7	-	-
Page	Section	Natural ground subsidence >					
93 >	17.1 >	Shrink swell clays >	Low (within 50m)				
95 >	17.2 >	Running sands >	Low (within 50m)				
97 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
99 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
101 >	17.5 >	Landslides >	Very low (within 50m)				
102 >	17.6 >	Ground dissolution of soluble rocks >	Very low (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
104 >	18.1 >	BritPits >	0	0	0	1	-
105 >	18.2 >	Surface ground workings >	0	0	6	-	-
105	18.3	Underground workings	0	0	0	0	0
106	18.4	Underground mining extents	0	0	0	0	-
106 >	18.5 >	Historical Mineral Planning Areas >	0	0	0	1	-



106 >	18.6 >	Non-coal mining >	1	1	0	0	0
107	18.7	JPB mining areas	None (within 0m)				
107	18.8	The Coal Authority non-coal mining	0	0	0	0	-
107	18.9	Researched mining	0	0	0	0	-
107	18.10	Mining record office plans	0	0	0	0	-
108	18.11	BGS mine plans	0	0	0	0	-
108	18.12	Coal mining	None (within 0m)				
108	18.13	Brine areas	None (within 0m)				
108	18.14	Gypsum areas	None (within 0m)				
108	18.15	Tin mining	None (within 0m)				
109	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
110	19.1	Natural cavities	0	0	0	0	-
110	19.2	Mining cavities	0	0	0	0	0
110	19.3	Reported recent incidents	0	0	0	0	-
110	19.4	Historical incidents	0	0	0	0	-
111	19.5	National karst database	0	0	0	0	-
Page	Section	Radon >					
112 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
114 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	2	-	-	-
114	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
115	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
116	22.1	Underground railways (London)	0	0	0	-	-
116	22.2	Underground railways (Non-London)	0	0	0	-	-
116	22.3	Railway tunnels	0	0	0	-	-
116	22.4	Historical railway and tunnel features	0	0	0	-	-
116	22.5	Royal Mail tunnels	0	0	0	-	-



117	22.6	Historical railways	0	0	0	-	-
117	22.7	Railways	0	0	0	-	-
117	22.8	Crossrail 1	0	0	0	0	-
117	22.9	Crossrail 2	0	0	0	0	-
117	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 15/06/2022

Site Area: 0.28ha



Recent site history - 2019 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 14/09/2019

Site Area: 0.28ha



Recent site history - 2010 aerial photograph



Capture Date: 27/04/2010

Site Area: 0.28ha



Recent site history - 2006 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2024. All Rights Reserved.

Capture Date: 12/07/2006

Site Area: 0.28ha



Recent site history - 2000 aerial photograph



Capture Date: 10/06/2000

Site Area: 0.28ha



OS MasterMap site plan

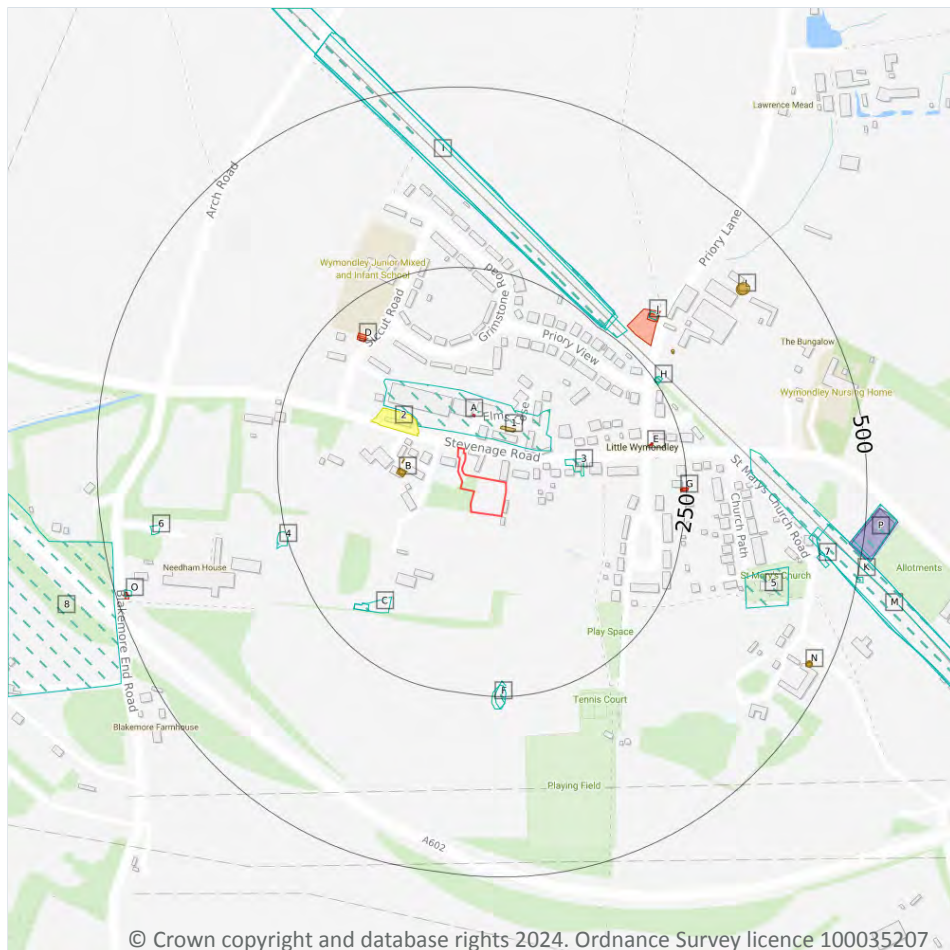


© Crown copyright and database rights 2024. Ordnance Survey licence 100035207

Site Area: 0.28ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

24

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

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

ID	Location	Land use	Dates present	Group ID
A	21m N	Unspecified Works	1980	2080064



ID	Location	Land use	Dates present	Group ID
3	86m E	Smithy	1897	2089414
C	161m SW	Pumping House	1946	2103450
C	191m SW	Pumping House	1922 - 1946	2117468
F	228m S	Unspecified Ground Workings	1980	2090912
F	234m S	Chalk Pit	1897	2094518
4	248m W	Gravel Pit	1884	2095039
H	250m NE	Railway Building	1976	2099496
H	250m NE	Railway Building	1946	2127777
I	252m NE	Cuttings	1946	2130816
I	252m NE	Cuttings	1897 - 1946	2097559
I	253m NE	Cuttings	1884	2101706
I	253m NE	Cuttings	1976 - 1980	2120208
J	302m NE	Electric Substation	1980	2085819
K	340m E	Railway Sidings	1922 - 1946	2113141
5	348m E	Grave Yard	1884	2077147
6	419m W	Gravel Pit	1884	2095038
M	425m E	Railway Sidings	1976	2140945
M	436m E	Railway Sidings	1947	2117886
7	440m E	Railway Buildings	1976	2078809
O	478m W	Electric Substation	1980	2085820
P	485m E	Garage	1980	2084431
8	489m W	Disused Gravel Pit	1980	2074765
K	499m E	Railway Building	1976	2092747

This data is sourced from Ordnance Survey / Groundsure.



1.2 Historical tanks

Records within 500m

12

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

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

ID	Location	Land use	Dates present	Group ID
1	58m N	Tanks	1971 - 1991	375033
B	71m W	Unspecified Tank	1993 - 1994	367828
B	73m W	Unspecified Tank	1991	373559
B	74m W	Unspecified Tank	1971	365174
H	292m NE	Unspecified Tank	1971	368295
H	292m NE	Unspecified Tank	1993 - 1996	369222
L	415m NE	Unspecified Tank	1991	368711
L	417m NE	Unspecified Tank	1993 - 1996	369072
N	468m SE	Unspecified Tank	1991	373395
N	469m SE	Unspecified Tank	1993 - 1996	367312
N	469m SE	Unspecified Tank	1971	367136
N	470m SE	Unspecified Tank	1923	374954

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

14

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

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



ID	Location	Land use	Dates present	Group ID
A	47m N	Electricity Substation	1994 - 1996	258054
D	196m NW	Electricity Substation	1971 - 1991	253021
D	198m NW	Electricity Substation	1993 - 1996	251067
E	205m E	Gas Governor	1991	250863
E	208m E	Gas Governor	1996	253982
E	208m E	Gas Governor	1994	258180
E	208m E	Gas Governor	1993	260947
G	242m E	Electricity Substation	1991	253879
G	244m E	Electricity Substation	1993 - 1996	257393
G	244m E	Electricity Substation	1971	255786
J	273m NE	Electricity Substation	1993 - 1996	257961
J	299m NE	Electricity Substation	1971 - 1991	257060
O	483m W	Electricity Substation	1993	264470
O	484m W	Electricity Substation	1986 - 1992	261255

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

1

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

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

ID	Location	Land use	Dates present	Group ID
2	58m NW	Filling Station	1971 - 1991	4238

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

2

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

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

ID	Location	Land use	Dates present	Group ID
P	481m E	Garage	1991 - 1996	79936
P	484m E	Garage	1971	80675

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

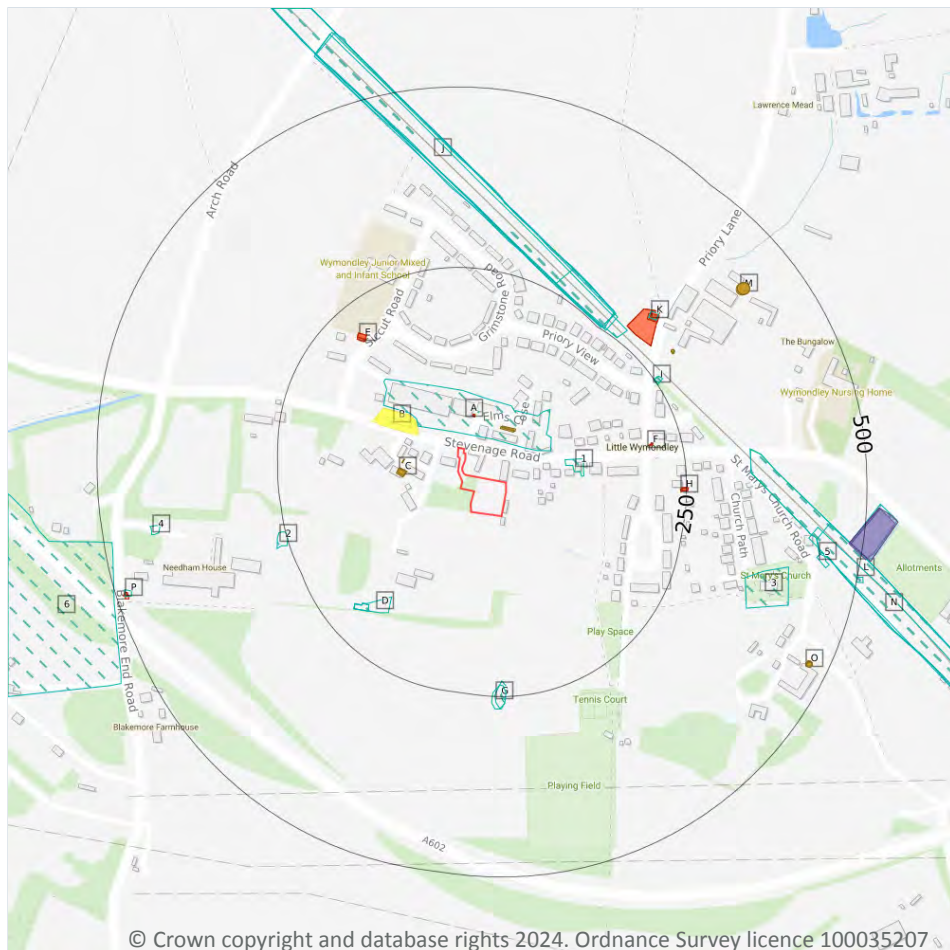
0

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

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

29

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 20](#) >

ID	Location	Land Use	Date	Group ID
A	21m N	Unspecified Works	1980	2080064
1	86m E	Smithy	1897	2089414
D	161m SW	Pumping House	1946	2103450



ID	Location	Land Use	Date	Group ID
D	191m SW	Pumping House	1946	2117468
D	191m SW	Pumping House	1922	2117468
G	228m S	Unspecified Ground Workings	1980	2090912
G	234m S	Chalk Pit	1897	2094518
2	248m W	Gravel Pit	1884	2095039
I	250m NE	Railway Building	1976	2099496
I	250m NE	Railway Building	1946	2127777
J	252m NE	Cuttings	1946	2130816
J	252m NE	Cuttings	1946	2097559
J	252m NE	Cuttings	1922	2097559
J	252m NE	Cuttings	1897	2097559
J	253m NE	Cuttings	1884	2101706
J	253m NE	Cuttings	1976	2120208
J	262m N	Cuttings	1980	2120208
K	302m NE	Electric Substation	1980	2085819
L	340m E	Railway Sidings	1946	2113141
L	340m E	Railway Sidings	1922	2113141
3	348m E	Grave Yard	1884	2077147
4	419m W	Gravel Pit	1884	2095038
N	425m E	Railway Sidings	1976	2140945
N	436m E	Railway Sidings	1947	2117886
5	440m E	Railway Buildings	1976	2078809
P	478m W	Electric Substation	1980	2085820
Q	485m E	Garage	1980	2084431
6	489m W	Disused Gravel Pit	1980	2074765
L	499m E	Railway Building	1976	2092747

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

20

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

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
A	58m N	Tanks	1991	375033
A	60m N	Tanks	1971	375033
C	71m W	Unspecified Tank	1994	367828
C	71m W	Unspecified Tank	1993	367828
C	73m W	Unspecified Tank	1991	373559
C	74m W	Unspecified Tank	1971	365174
I	292m NE	Unspecified Tank	1971	368295
I	292m NE	Unspecified Tank	1994	369222
I	292m NE	Unspecified Tank	1993	369222
I	292m NE	Unspecified Tank	1996	369222
M	415m NE	Unspecified Tank	1991	368711
M	417m NE	Unspecified Tank	1994	369072
M	417m NE	Unspecified Tank	1993	369072
M	417m NE	Unspecified Tank	1996	369072
O	468m SE	Unspecified Tank	1991	373395
O	469m SE	Unspecified Tank	1994	367312
O	469m SE	Unspecified Tank	1993	367312
O	469m SE	Unspecified Tank	1996	367312
O	469m SE	Unspecified Tank	1971	367136
O	470m SE	Unspecified Tank	1923	374954

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

24

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 20](#) >

ID	Location	Land Use	Date	Group ID
A	47m N	Electricity Substation	1994	258054
A	47m N	Electricity Substation	1996	258054
E	196m NW	Electricity Substation	1971	253021
E	197m NW	Electricity Substation	1991	253021
E	198m NW	Electricity Substation	1994	251067
E	198m NW	Electricity Substation	1993	251067
E	198m NW	Electricity Substation	1996	251067
F	205m E	Gas Governor	1991	250863
F	208m E	Gas Governor	1994	258180
F	208m E	Gas Governor	1993	260947
F	208m E	Gas Governor	1996	253982
H	242m E	Electricity Substation	1991	253879
H	244m E	Electricity Substation	1994	257393
H	244m E	Electricity Substation	1993	257393
H	244m E	Electricity Substation	1996	257393
H	244m E	Electricity Substation	1971	255786
K	273m NE	Electricity Substation	1994	257961
K	273m NE	Electricity Substation	1993	257961
K	273m NE	Electricity Substation	1996	257961
K	299m NE	Electricity Substation	1991	257060
K	302m NE	Electricity Substation	1971	257060
P	483m W	Electricity Substation	1993	264470
P	484m W	Electricity Substation	1986	261255



ID	Location	Land Use	Date	Group ID
P	484m W	Electricity Substation	1992	261255

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

2

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

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
B	58m NW	Filling Station	1971	4238
B	59m NW	Filling Station	1991	4238

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

5

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

Features are displayed on the Past land use - un-grouped map on [page 20 >](#)

ID	Location	Land Use	Date	Group ID
Q	481m E	Garage	1991	79936
Q	482m E	Garage	1994	79936
Q	482m E	Garage	1993	79936
Q	482m E	Garage	1996	79936
Q	484m E	Garage	1971	80675

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

3

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Details		
1	191m S	Site Address: Wymondleybury, Little Wymondley Licence Holder Address: -	Waste Licence: Yes Site Reference: 91/262 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 20/08/1991 Licence Surrender: 27/01/1993	Operator: - Licence Holder: C J Pryor Earth Moving Contractors Limited First Recorded 20/08/1991 Last Recorded: 27/01/1993
3	422m W	Site Address: Little Wymondley Gravel Pit, Little Wymondley, Near Hitchen, Hertfordshire Licence Holder Address: -	Waste Licence: - Site Reference: HCC082, LS82, HCC120, 0500/5097 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -
5	487m W	Site Address: Little Wymondley Quarry, Little Wymondley, Near Hitchen, Hertfordshire Licence Holder Address: 27a Essex Road, Stevenage, Hertfordshire	Waste Licence: Yes Site Reference: 83/157, 78/0085, 78/55, 1900/5342 Waste Type: Inert, Industrial, Commercial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: 30/04/1994	Operator: - Licence Holder: J W Stutley First Recorded - Last Recorded: 31/05/1983

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

1

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Details		
4	445m SE	Site Name: Wymondley Pet Crematorium Site Address: Wymondley Bury, Little Wymondley, Hertfordshire, SG4 7JN Correspondence Address: -	Type of Site: Incinerator Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 641722 EPR reference: EA/EPR/ZP3391NC Operator: Wymondley Pet Crematorium Waste Management licence No: 80276 Annual Tonnage: 18	Issue Date: 06/03/1996 Effective Date: 06/03/1996 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Surrendered

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

3.7 Waste exemptions

Records within 500m

15

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

Features are displayed on the Waste and landfill map on [page 25 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX382752	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit



ID	Location	Site	Reference	Category	Sub-Category	Description
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX382752	Using waste exemption	On a farm	Use of waste for a specified purpose
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX382752	Using waste exemption	On a farm	Use of waste in construction
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX111462	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX111462	Using waste exemption	On a farm	Use of waste in construction
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX111462	Using waste exemption	On a farm	Use of waste for a specified purpose
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX254936	Using waste exemption	On a farm	Use of waste in construction
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX254936	Using waste exemption	On a farm	Use of waste for a specified purpose
A	318m NE	Wymondley Hall Farm, Priory Lane, Little Wymondley, Hitchin, Sg4 7he	WEX254936	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
2	354m W	-	WEX316124	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	426m NE	Wymondley Hall Farm Priory Lane Little Wymondley Hertfordshire Sg4 7he	EPR/QE5388A G/A001	Treating waste exemption	Non-agricultural waste only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	426m NE	Wymondley Hall Farm Priory Lane Little Wymondley Hertfordshire Sg4 7he	EPR/QE5388A G/A001	Using waste exemption	Non-agricultural waste only	Use of waste in construction

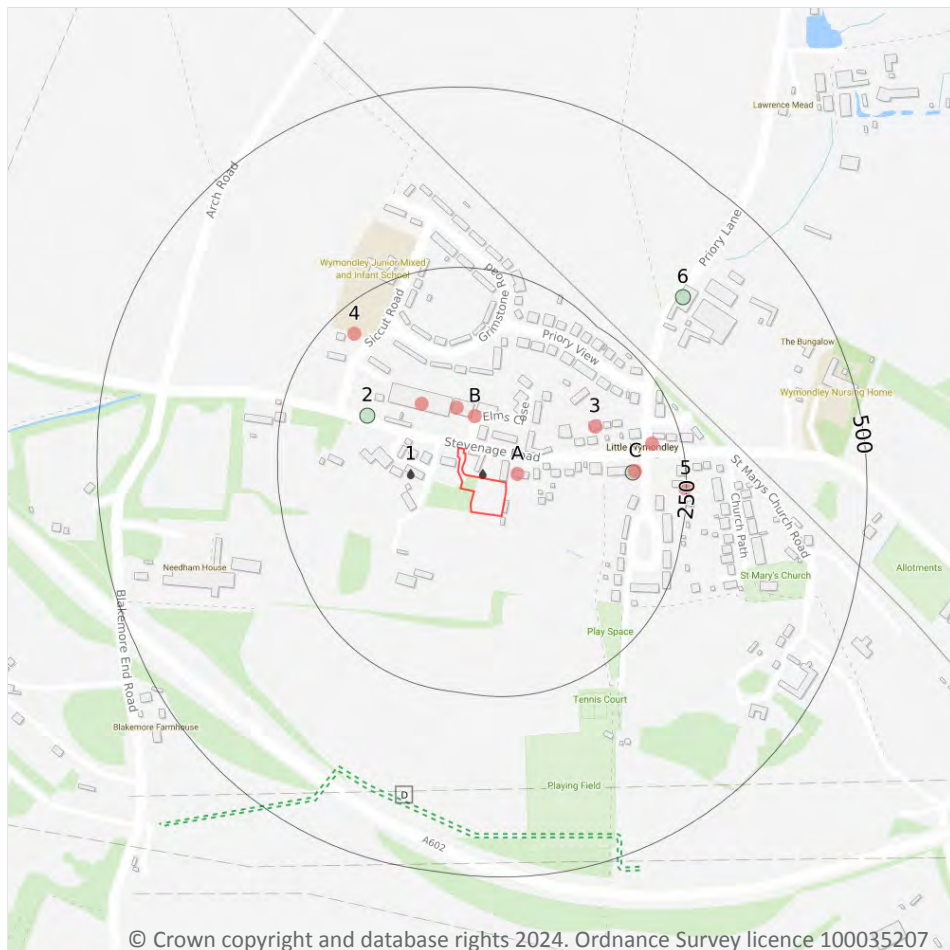


ID	Location	Site	Reference	Category	Sub-Category	Description
B	426m NE	Wymondley Hall Farm Priory Lane Little Wymondley Hertfordshire Sg4 7he	EPR/QE5388A G/A001	Using waste exemption	Non- agricultura l waste only	Spreading of plant matter to confer benefit
B	426m NE	Wymondley Hall Farm Priory Lane Little Wymondley Hertfordshire Sg4 7he	EPR/QE5388A G/A001	Using waste exemption	Non- agricultura l waste only	Use of waste for a specified purpose
6	488m W	Waterloo Farm Huntingdon Cambridgeshire Pe28 4hq	EPR/WH0379V C/A001	Disposing of waste exemption	Agricultura l waste only	Burning waste in the open

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- Electricity cables
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

9

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 30](#) >

ID	Location	Company	Address	Activity	Category
A	20m NE	Melford Pest Control	Melford, Stevenage Road, Little Wymondley, Hertfordshire, SG4 7JA	Pest and Vermin Control	Contract Services
B	48m N	Electricity Sub Station	Hertfordshire, SG4	Electrical Features	Infrastructure and Facilities
B	56m N	M C Products Ltd	Unit 1/b Elms Yard, Stevenage Road, Little Wymondley, Hitchin, Hertfordshire, SG4 7HY	Cleaning Equipment and Supplies	Industrial Products



ID	Location	Company	Address	Activity	Category
B	79m NW	Andrew Charles Watch & Clockmakers Ltd	Elms Yard, Stevenage Road, Little Wymondley, Hertfordshire, SG4 7HY	Jewellery, Gems, Clocks and Watches	Consumer Products
3	146m NE	Fraser T V Service	The Laurels, Stevenage Road, Little Wymondley, Hertfordshire, SG4 7HY	Electrical Equipment Repair and Servicing	Repair and Servicing
C	180m E	Pdubz Ltd	6, Stevenage Road, Little Wymondley, Hertfordshire, SG4 7HY	Vehicle Repair, Testing and Servicing	Repair and Servicing
C	210m E	Gas Governor Station	Hertfordshire, SG4	Gas Features	Infrastructure and Facilities
4	214m NW	Electricity Sub Station	Hertfordshire, SG4	Electrical Features	Infrastructure and Facilities
5	249m E	Electricity Sub Station	Hertfordshire, SG4	Electrical Features	Infrastructure and Facilities

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	2
----------------------------	----------

High voltage underground electricity transmission cables.

Features are displayed on the Current industrial land use map on [page 30 >](#)

ID	Location	Cable Set	Cable Route	Details	
D	397m SW	COREYS MILL - WYMONDLEY 4 SECTION 2	COREYS MILL - WYMONDLEY 4	Cable Make: PIRELLI 25KV (Cable Type: A/C Operating Voltage (kV): 33	Year of installation: 2002 Cable in tunnel? Not specified
D	403m SW	COREYS MILL - WYMONDLEY 3 SECTION 2	COREYS MILL - WYMONDLEY 3	Cable Make: PIRELLI 25KV (Cable Type: A/C Operating Voltage (kV): 33	Year of installation: 2002 Cable in tunnel? Not specified

This data is sourced from National Grid.



4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

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**2**

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 30](#) >



ID	Location	Address	Details	
A	6m N	ELMS DEPOT WYMONDLEY, HITCHIN, HERTFORDSHIRE	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: PR1NF1485 Permit Version: 1 Receiving Water: Ash Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 10/08/1984 Effective Date: 10/08/1984 Revocation Date: 01/11/1994
1	66m W	ELM DEPOT, STEVENAGE ROAD, LITTLE WYMONDLEY, HITCHIN, HERTS, SG4 7HZ	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: PR1NF343 Permit Version: 1 Receiving Water: Ash Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 18/06/1962 Effective Date: 18/06/1962 Revocation Date: 19/09/1996

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

3

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

Features are displayed on the Current industrial land use map on [page 30 >](#)

ID	Location	Details	
2	134m NW	Incident Date: 28/05/2003 Incident Identification: 161224 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
C	177m E	Incident Date: 05/12/2001 Incident Identification: 46633 Pollutant: Oils and Fuel Pollutant Description: Petrol	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
6	355m NE	Incident Date: 07/03/2002 Incident Identification: 62484 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 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

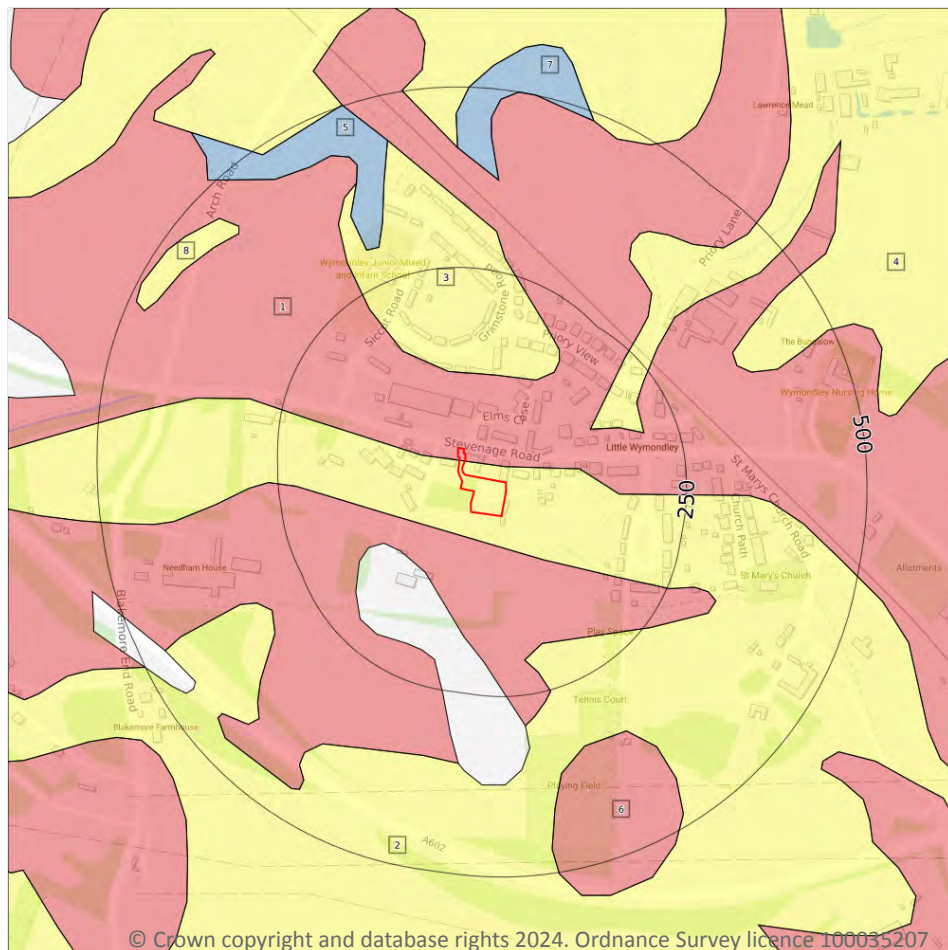
Records within 500m**0**

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

8

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 37](#) >

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

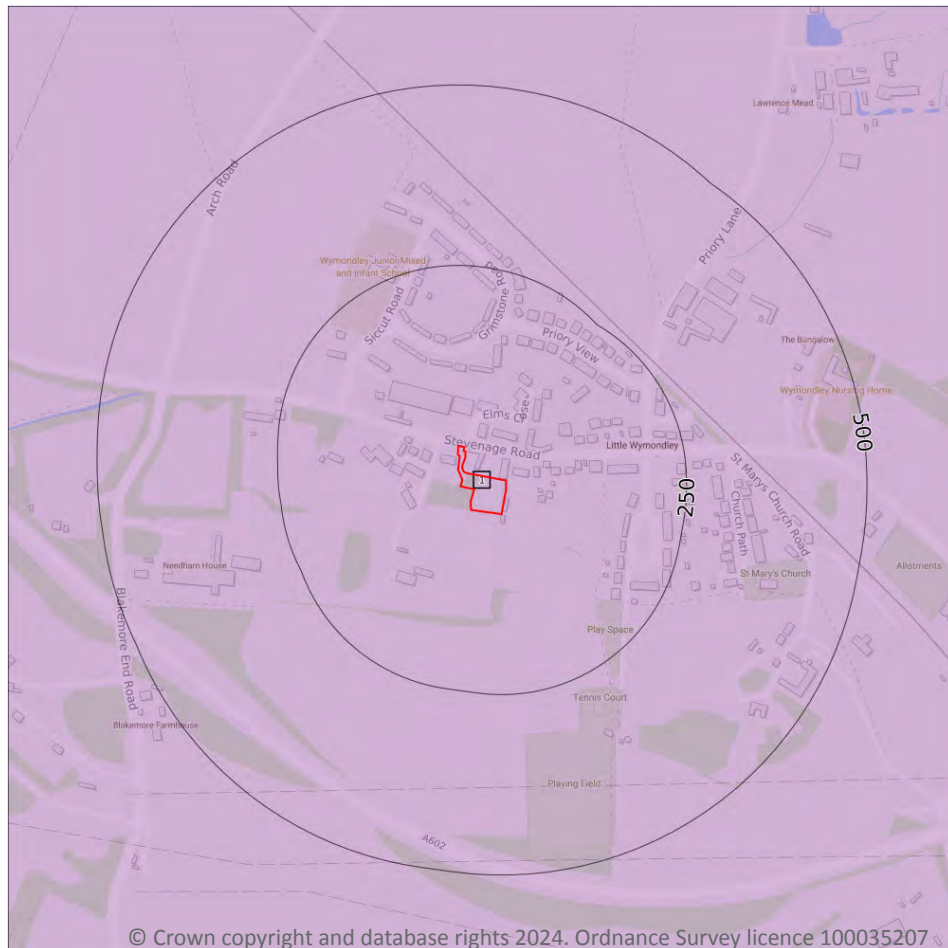


ID	Location	Designation	Description
3	105m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	138m 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	299m NW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
6	339m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
7	375m N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
8	425m NW	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.

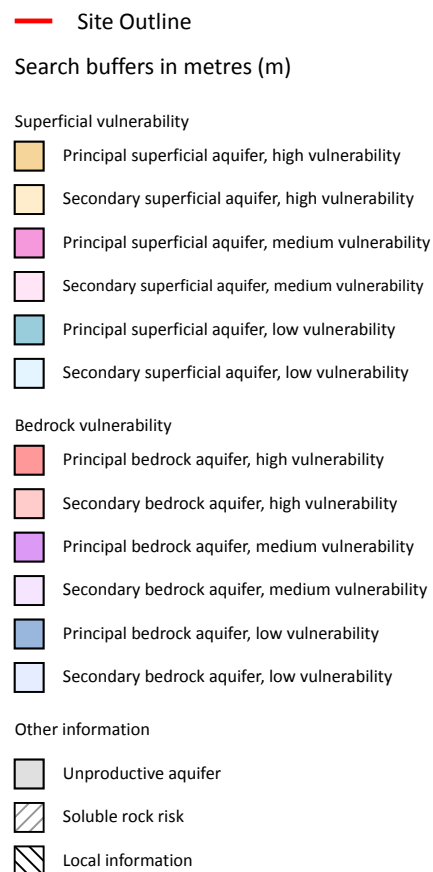
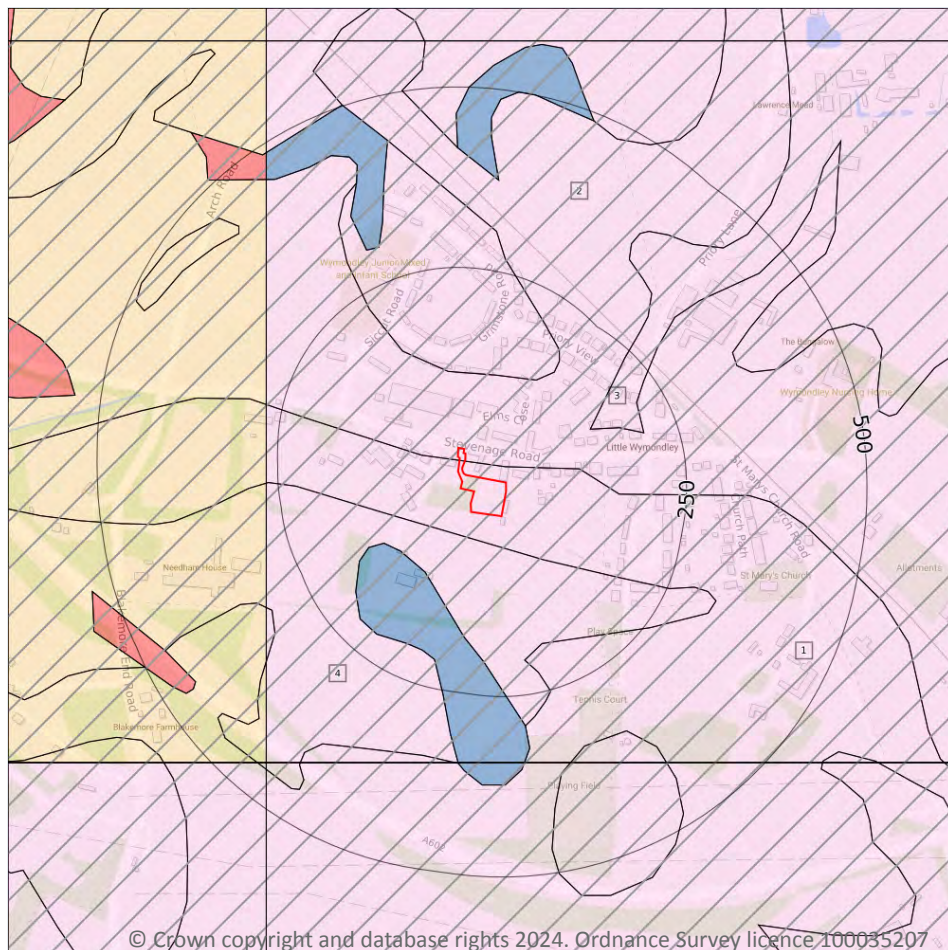
Features are displayed on the Bedrock aquifer map on [page 39](#) >

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

3

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 40](#) >



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
4	35m SW	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	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	
3	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	23.0%	

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



5.5 Groundwater vulnerability- local information

Records on site

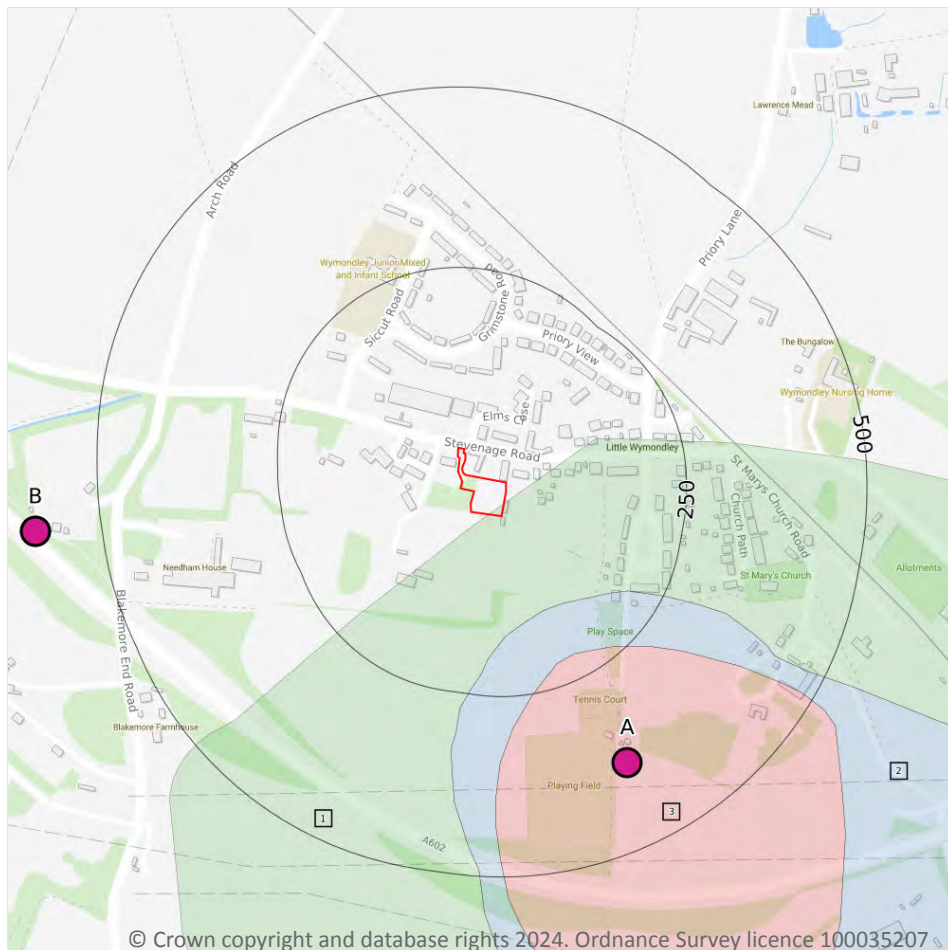
0

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

5

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 43](#) >

ID	Location	Details	
A	383m SE	Status: Active Licence No: 6/33/13/*G/0007 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE - LITTLE WYMONDLEY Data Type: Point Name: Affinity Water Limited Easting: 521500 Northing: 227000	Annual Volume (m ³): 414831 Max Daily Volume (m ³): 1528 Original Application No: NPS/WR/034570 Original Start Date: 01/11/1966 Expiry Date: - Issue No: 105 Version Start Date: 17/09/2020 Version End Date: -
B	592m W	Status: Historical Licence No: 6/33/13/*G/0086 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE W OF LITTLE WYMONDLEY Data Type: Point Name: HERTFORDSHIRE & BEDFORDSHIRE PETROLEUM Easting: 520680 Northing: 227320	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1988 Version End Date: -
B	592m W	Status: Historical Licence No: 6/33/13/*G/0086 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE W OF LITTLE WYMONDLEY Data Type: Point Name: HERTFORDSHIRE & BEDFORDSHIRE PETROLEUM Easting: 520680 Northing: 227320	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1988 Version End Date: -
-	933m SE	Status: Active Licence No: 6/33/13/*G/0097 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT TODDS GREEN Data Type: Point Name: F T GEARING LANDSCAPE Easting: 522030 Northing: 226730	Annual Volume (m ³): 9100 Max Daily Volume (m ³): 45 Original Application No: - Original Start Date: 01/05/1996 Expiry Date: - Issue No: 100 Version Start Date: 01/05/1996 Version End Date: -
-	1652m NW	Status: Historical Licence No: 6/33/13/*G/0043 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: FOUR BOREHOLES AT NINE SPRINGS Data Type: Point Name: BURDETT-COUTTS Easting: 520500 Northing: 228900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1969 Expiry Date: - Issue No: 100 Version Start Date: 01/09/1990 Version End Date: -



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

5.7 Surface water abstractions

Records within 2000m

2

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 43](#) >

ID	Location	Details	
-	1526m N	Status: Historical Licence No: 6/33/13/*S/0034 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: WATERCOURSE N OF GT WYMONDLEY Data Type: Line Name: LETCHWORTH GARDEN CITY HERITAGE FOUNDATION Easting: 520670 Northing: 229150	Annual Volume (m ³): 22300 Max Daily Volume (m ³): 727 Original Application No: - Original Start Date: 01/11/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1999 Version End Date: -
-	1550m NW	Status: Historical Licence No: 6/33/13/*S/0034 Details: Spray Irrigation - Direct Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: WATERCOURSE N OF GT WYMONDLEY Data Type: Line Name: LETCHWORTH GARDEN CITY HERITAGE FOUNDATION Easting: 520630 Northing: 228850	Annual Volume (m ³): 22300 Max Daily Volume (m ³): 727 Original Application No: - Original Start Date: 01/11/1967 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1999 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

2

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 43](#) >



ID	Location	Details	
A	383m SE	Status: Active Licence No: 6/33/13/*G/0007 Details: Potable Water Supply - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE - LITTLE WYMONDLEY Data Type: Point Name: Affinity Water Limited Easting: 521500 Northing: 227000	Annual Volume (m ³): 414831 Max Daily Volume (m ³): 1528 Original Application No: NPS/WR/034570 Original Start Date: 01/11/1966 Expiry Date: - Issue No: 105 Version Start Date: 17/09/2020 Version End Date: -
B	592m W	Status: Historical Licence No: 6/33/13/*G/0086 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE W OF LITTLE WYMONDLEY Data Type: Point Name: HERTFORDSHIRE & BEDFORDSHIRE PETROLEUM Easting: 520680 Northing: 227320	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/04/1985 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1988 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	3
----------------------------	----------

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 43 >](#)

ID	Location	Type	Description
1	On site	3	Total catchment
2	143m SE	2	Outer catchment
3	215m SE	1	Inner catchment

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



5.10 Source Protection Zones (confined aquifer)

Records within 500m

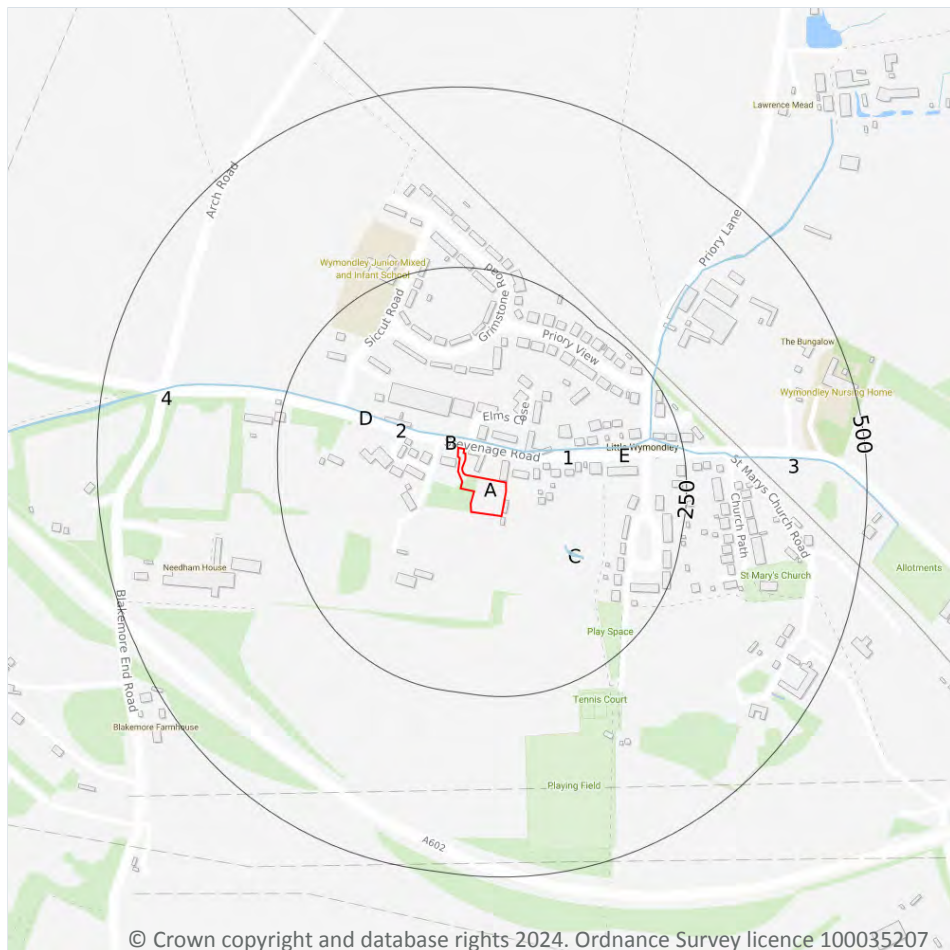
0

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

20

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

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

ID	Location	Type of water feature	Ground level	Permanence	Name
B	15m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
B	15m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Ash Brook
B	22m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
1	49m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
2	58m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
C	97m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	102m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	134m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
E	136m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
D	167m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Ash Brook
D	179m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
E	186m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Ash Brook
E	208m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
E	209m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
E	209m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
D	210m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Ash Brook
3	210m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Ash Brook
4	212m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Ash Brook
E	243m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	248m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

1

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

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

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 48 >](#)



ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	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 48 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1599m NW	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.

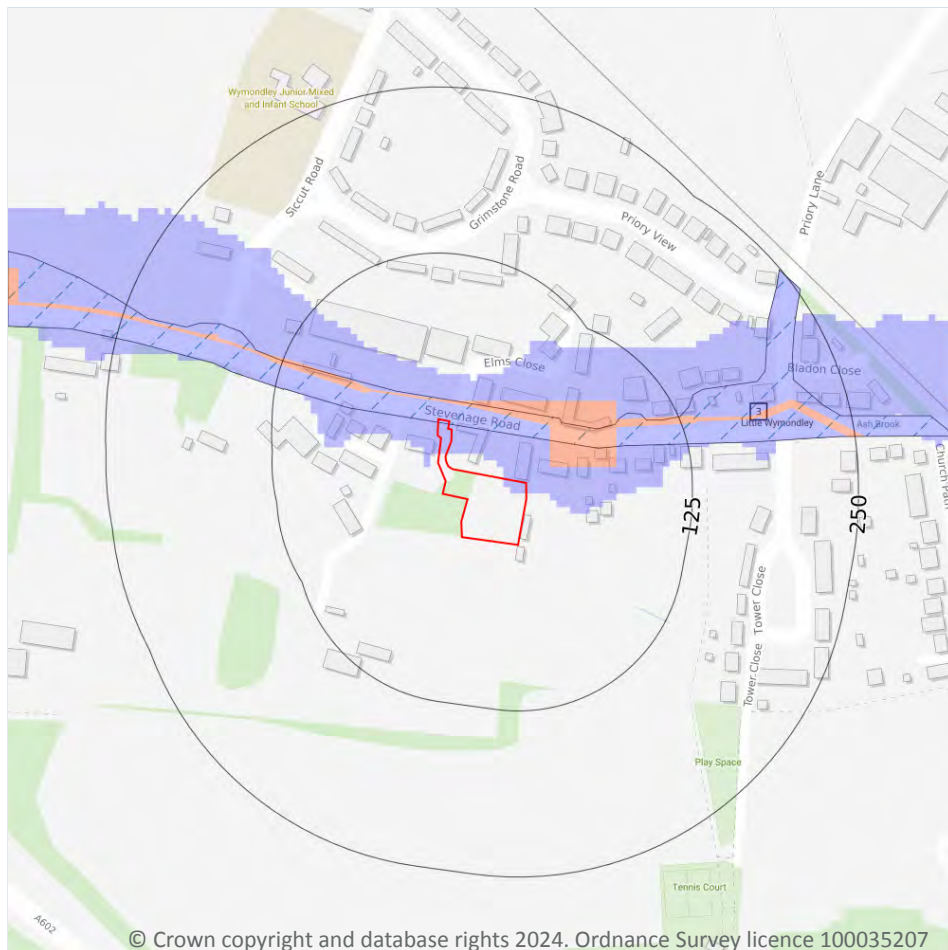
Features are displayed on the Hydrology map on [page 48 >](#)

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	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



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

7.1 Risk of flooding from rivers and the sea

Records within 50m

4

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).

Features are displayed on the River and coastal flooding map on [page 52 >](#)

Distance	Flood risk category
On site	Medium
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	1
----------------------------	----------

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

Features are displayed on the River and coastal flooding map on [page 52 >](#)

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
3	On site	September 1968	1968-01-01 1968-12-31	Unknown	Unknown	Fluvial

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

7.3 Flood Defences

Records within 250m	0
----------------------------	----------

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0
----------------------------	----------

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

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



7.5 Flood Storage Areas

Records within 250m

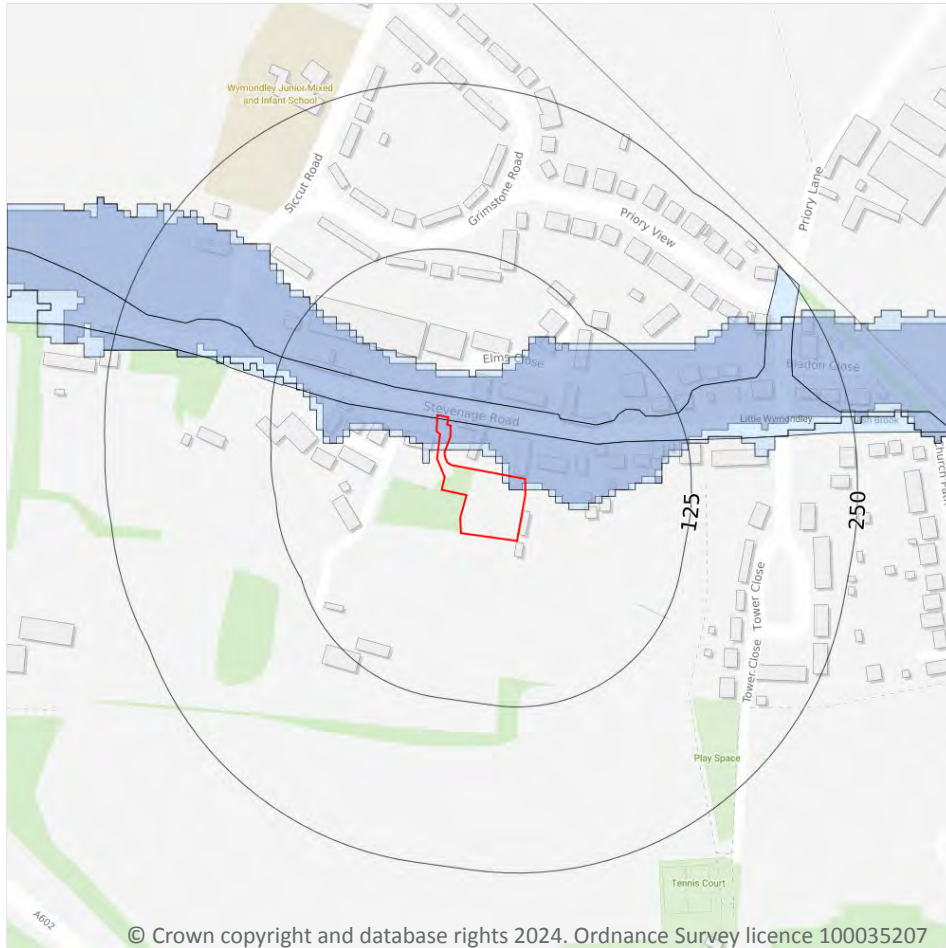
0

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

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



River and coastal flooding - Flood Zones



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

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.

Features are displayed on the River and coastal flooding map on [page 52 >](#)

Location	Type
On site	Zone 2 - (Fluvial /Tidal Models)

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



7.7 Flood Zone 3

Records within 50m

1

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.

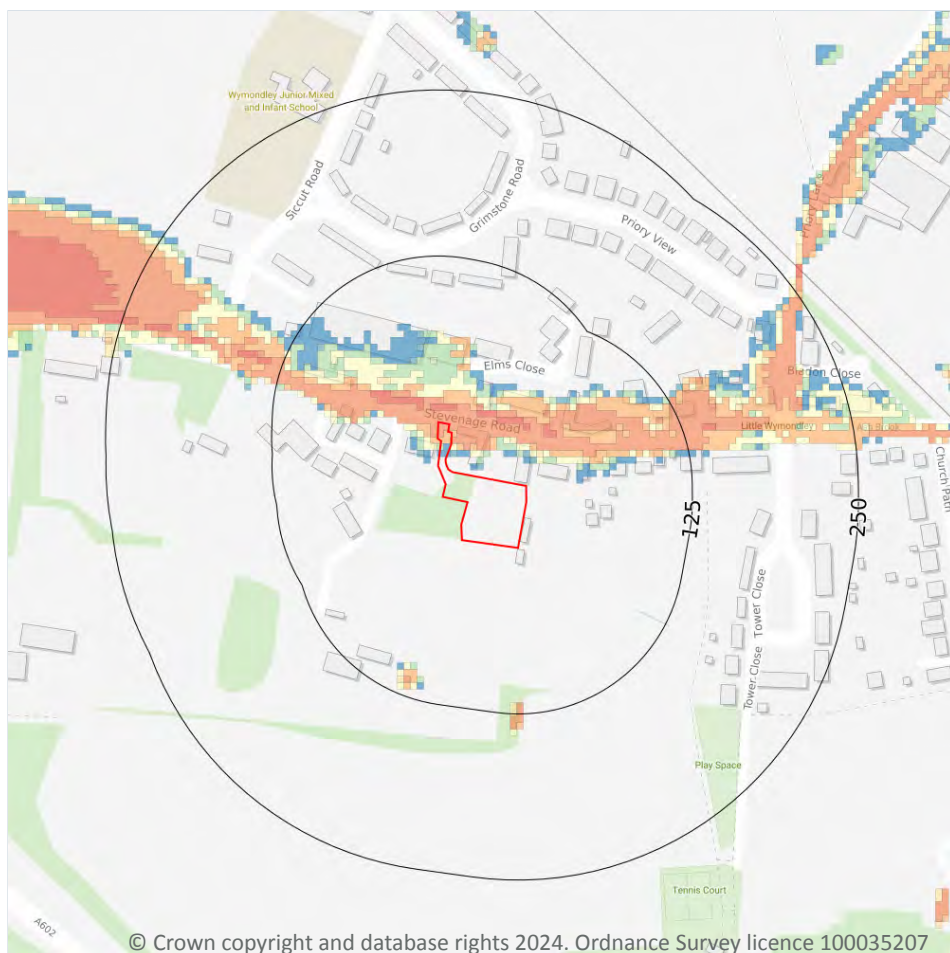
Features are displayed on the River and coastal flooding map on [page 52 >](#)

Location	Type
On site	Zone 3 - (Fluvial Models)

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



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

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

1 in 250 return period

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

1 in 100 return period

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

1 in 30 return period

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

8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

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

Features are displayed on the Surface water flooding map on [page 57 >](#)

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.



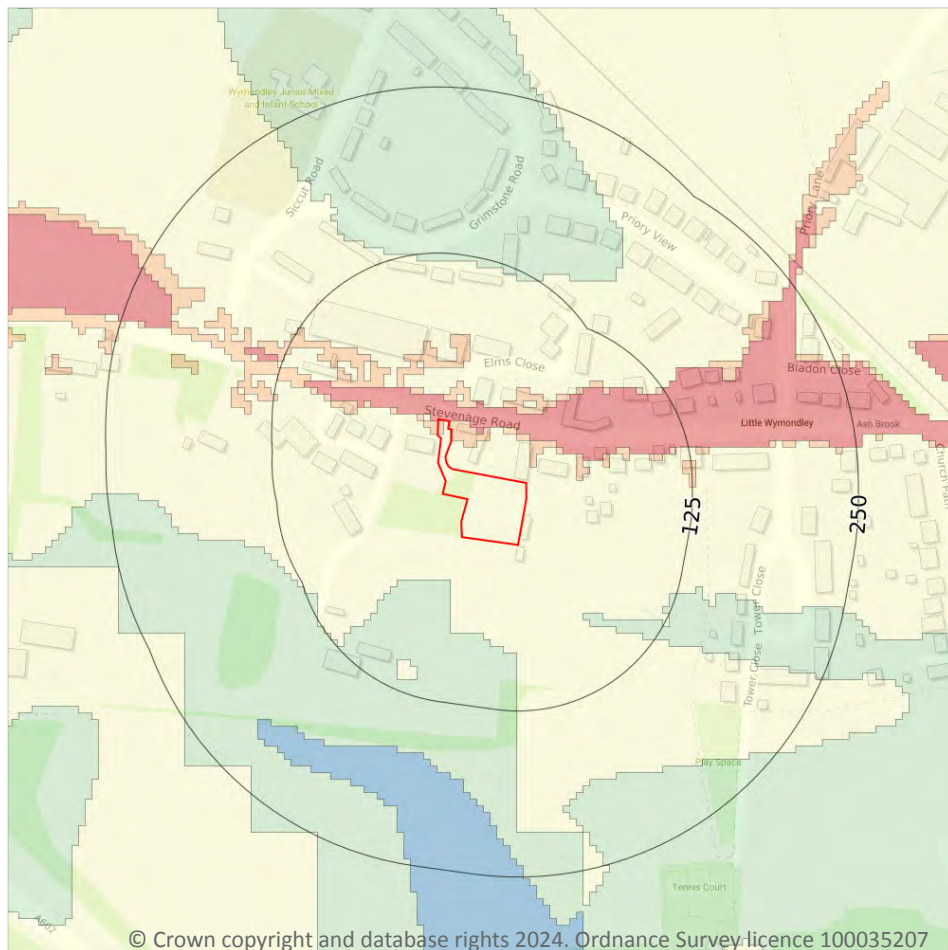
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

High

Highest risk within 50m

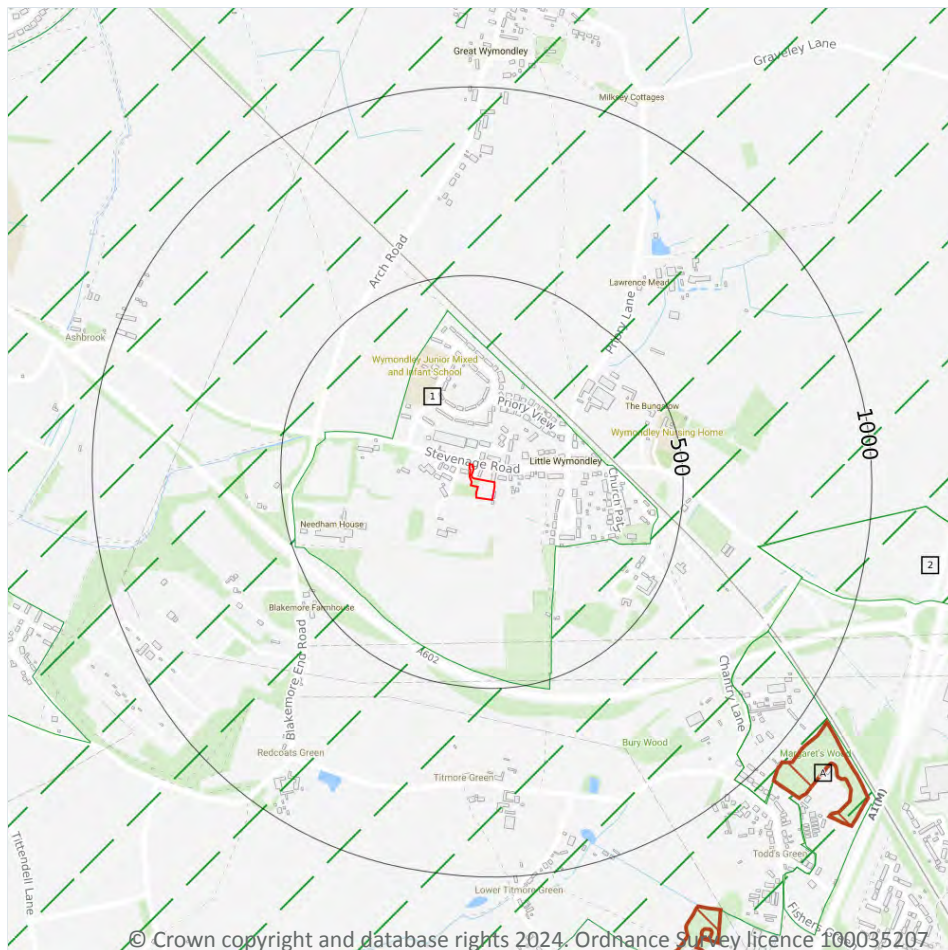
High

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 59 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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



10.6 Local Nature Reserves (LNR)

Records within 2000m**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**2**

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 60](#) >

ID	Location	Name	Woodland Type
A	1037m SE	Unknown	Ancient & Semi-Natural Woodland
3	1208m SE	Unknown	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m**0**

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

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

10.9 Forest Parks

Records within 2000m**0**

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

This data is sourced from the Forestry Commission.



10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

3

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

Features are displayed on the Environmental designations map on [page 60 >](#)

ID	Location	Name	Local Authority name
1	208m SE	London	North Hertfordshire
2	719m E	London	Stevenage
A	783m SE	London	Stevenage

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m**0**

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m**5**

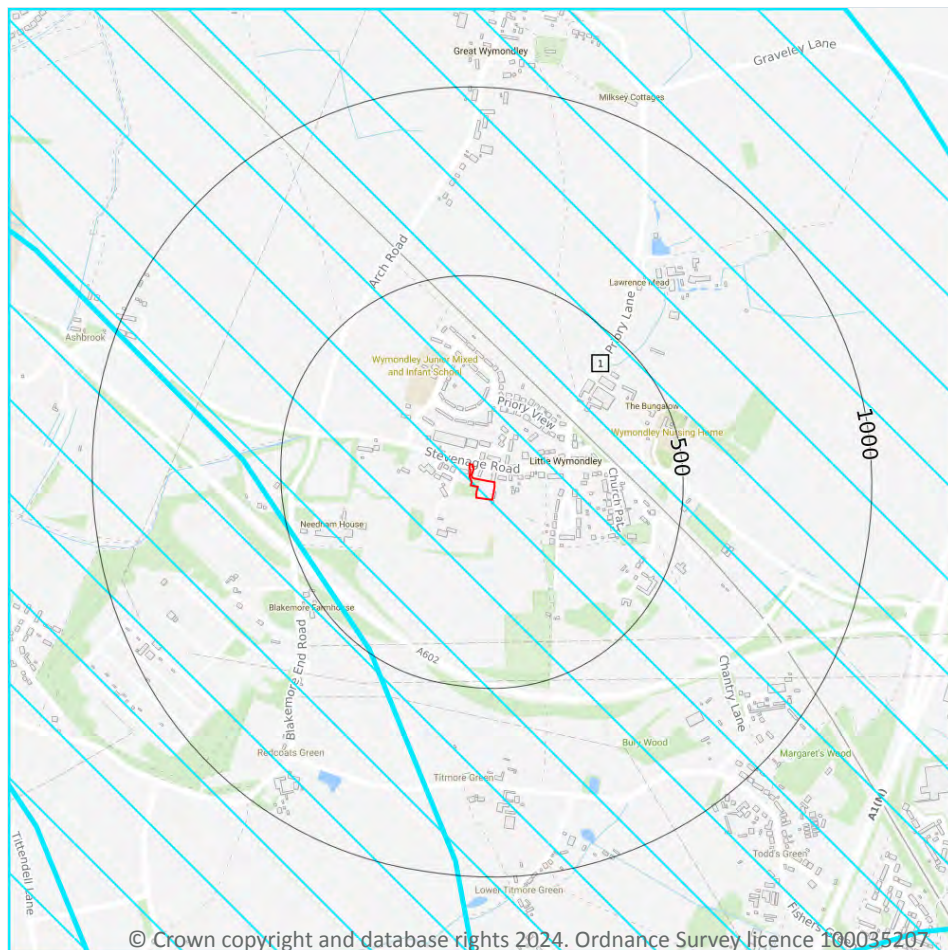
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Great Ouse NVZ	Surface Water	391	Existing
On site	Anglian Chalk	Groundwater	71	Existing
1359m S	Great Ouse NVZ	Surface Water	391	Existing
1359m S	Anglian Chalk	Groundwater	71	Existing
1968m S	LEE NVZ	Surface Water	443	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 65 >](#)

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Livestock & poultry units with floorspace > 500m ² , slurry lagoons & digestate stores > 750m ² , manure stores > 3500t.

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

0

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

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



11 Visual and cultural designations



- 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

9

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 67 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
1	13m NW	The Croft	II	1102471	28/05/1987
2	20m N	Boro Cottages	II	1308120	28/05/1987
3	43m E	Blacksmiths Cottages In Blacksmith's Yard	II	1102470	18/03/1980
4	58m NE	Barn Range At Elms Yard (Stutley Brothers Limited)	II	1102467	27/05/1968
5	101m NE	The Elms Including Former Barn Range Linked To East End	II	1102468	27/05/1968
6	111m W	Wymondley House	II*	1175971	27/05/1968



ID	Location	Name	Grade	Reference Number	Listed date
7	123m E	The Bucks Head Public House	II	1347465	27/05/1968
8	146m NE	The Laurels	II	1347464	28/05/1987
9	191m E	Plume Of Feathers Public House	II	1102469	28/05/1987

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

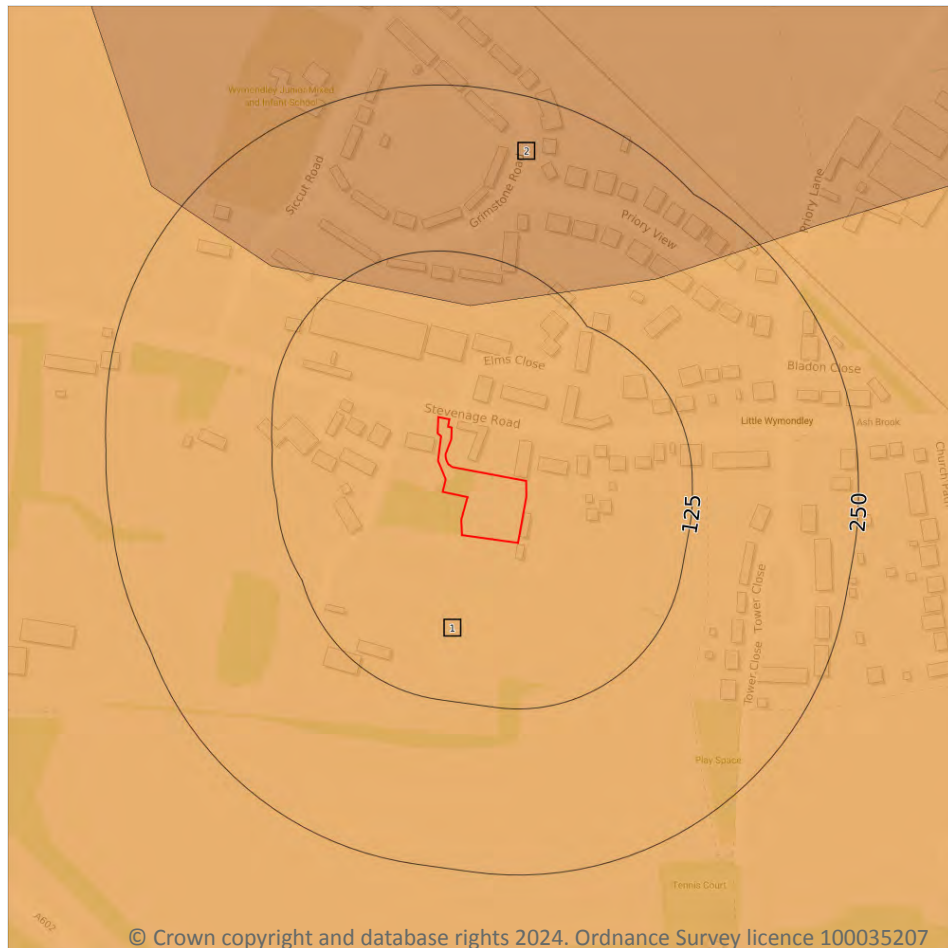
0

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

2

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 70](#) >

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



ID	Location	Classification	Description
2	87m N	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

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

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

12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.



12.5 Countryside Stewardship Schemes

Records within 250m**1**

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

Location	Reference	Scheme	Start Date	End Date
93m W	828403	Countryside Stewardship (Middle Tier)	01/01/2020	31/12/2024

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

2

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 73](#) >

ID	Location	Main Habitat	Other habitats
A	71m W	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
A	77m 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

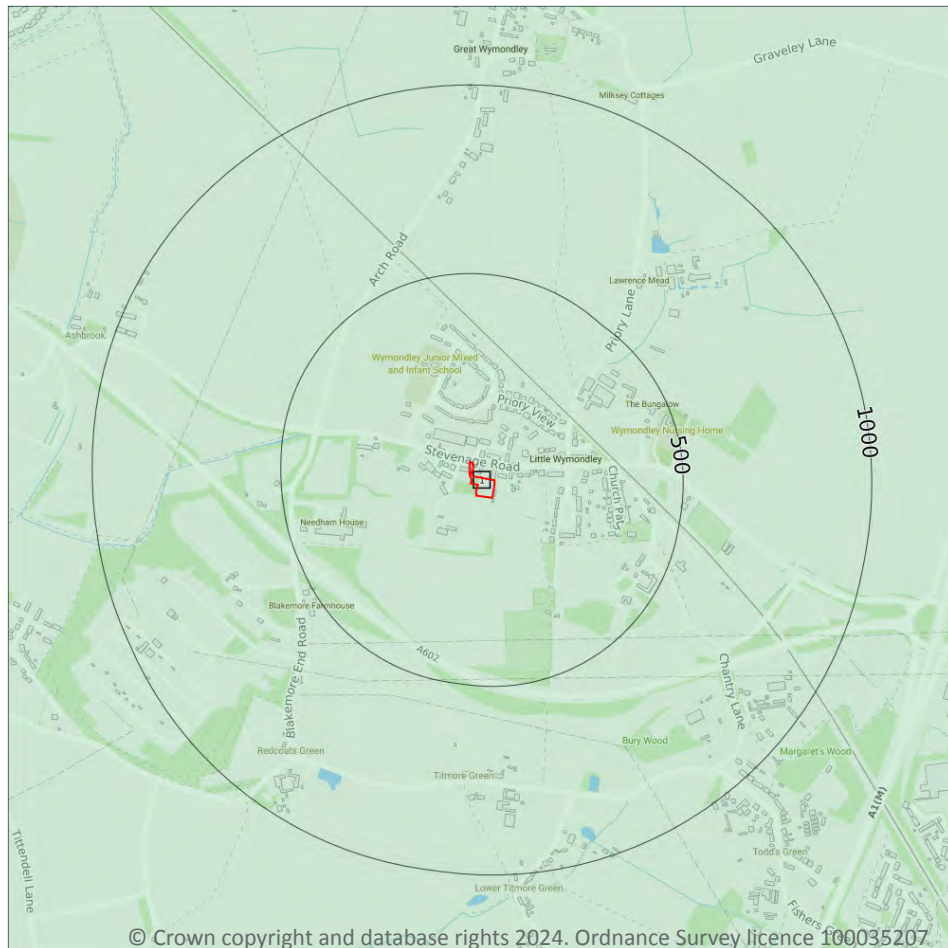
0

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.

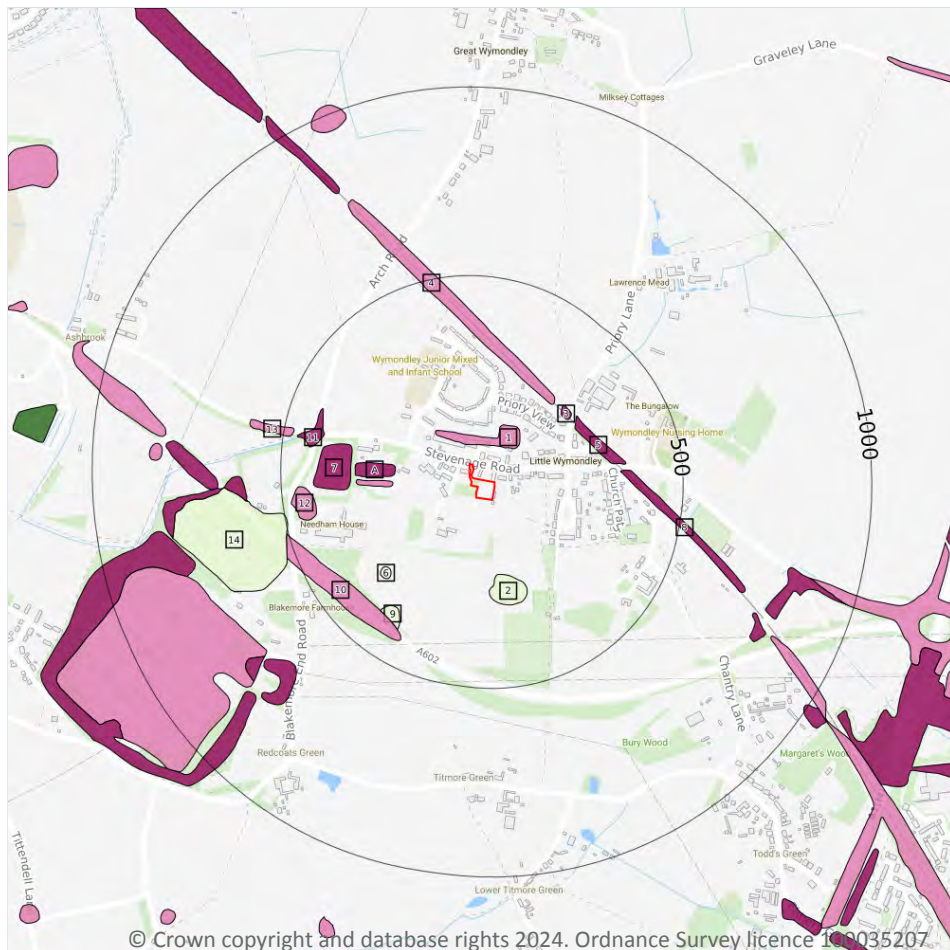
Features are displayed on the Geology 1:10,000 scale - Availability map on [page 75](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	TL22NW

This data is sourced from the British Geological Survey.



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



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

14.2 Artificial and made ground (10k)

Records within 500m

16

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

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on [page 76 >](#)

ID	Location	LEX Code	Description	Rock description
1	52m N	WGR-VOID	Worked Ground (Undivided)	Void
A	196m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	199m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
A	204m W	WGR-VOID	Worked Ground (Undivided)	Void

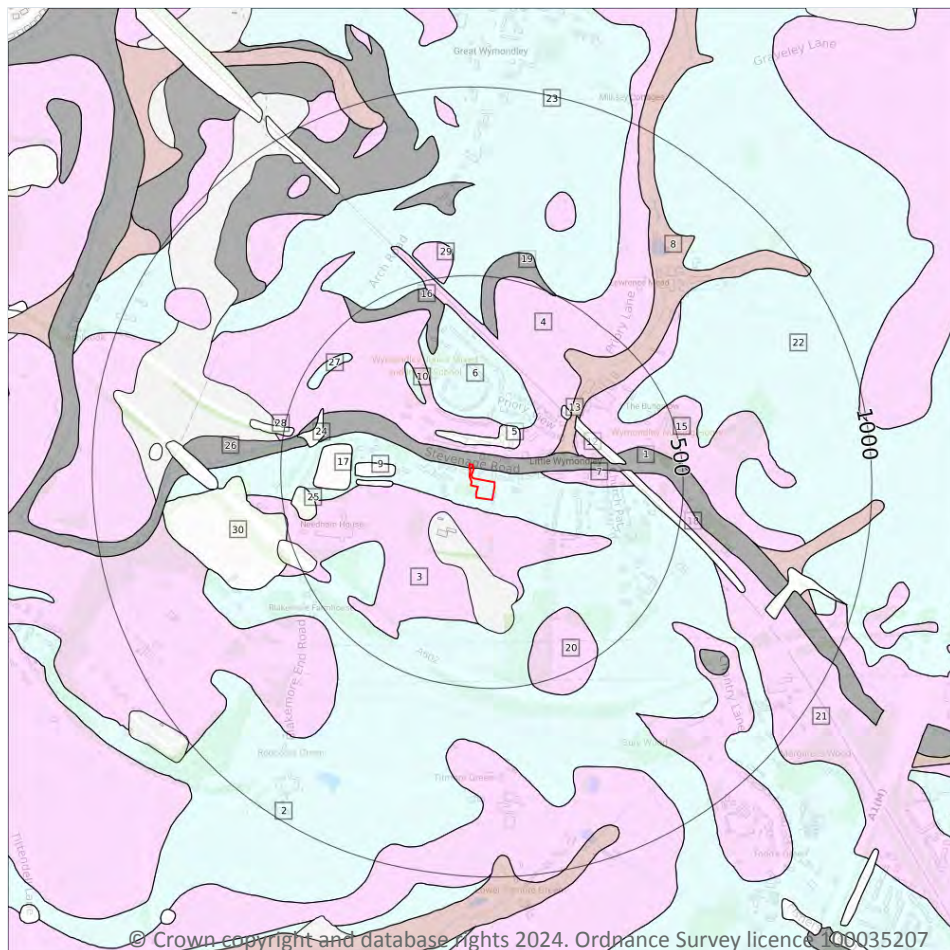


ID	Location	LEX Code	Description	Rock description
3	251m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	255m NE	WGR-VOID	Worked Ground (Undivided)	Void
5	257m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	297m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
7	313m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	336m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
9	359m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
10	392m SW	WGR-VOID	Worked Ground (Undivided)	Void
11	393m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
12	414m W	WGR-VOID	Worked Ground (Undivided)	Void
13	474m W	WGR-VOID	Worked Ground (Undivided)	Void
14	496m W	WMGR-ARTDP	Infilled Ground	Artificial Deposit

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m

30

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 78](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-CZ	Alluvium - Silty Clay	Clay, Silty
2	On site	LOFT-DMTN	Lowestoft Formation - Diamicton	Diamicton
3	28m S	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
4	32m N	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel

ID	Location	LEX Code	Description	Rock description
5	52m N	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
6	124m N	LOFT-DMTN	Lowestoft Formation - Diamicton	Diamicton
7	124m E	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
8	159m NE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
9	196m W	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
10	199m NW	LOFT-DMTN	Lowestoft Formation - Diamicton	Diamicton
11	204m W	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
12	232m E	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
13	251m NE	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
14	257m NE	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
15	280m NE	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
16	307m N	GLLMP-CZ	Glaciolacustrine Deposits, Mid Pleistocene - Clay, Silty (unlithified Deposits Coding Scheme)	Clay, Silty
17	313m W	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
18	336m E	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
19	341m N	GLLMP-CZ	Glaciolacustrine Deposits, Mid Pleistocene - Clay, Silty (unlithified Deposits Coding Scheme)	Clay, Silty
20	341m SE	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
21	370m E	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
22	371m NE	LOFT-DMTN	Lowestoft Formation - Diamicton	Diamicton
23	372m N	LOFT-DMTN	Lowestoft Formation - Diamicton	Diamicton
24	393m W	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
25	414m W	SUPNM-UKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
26	419m W	ALV-CZ	Alluvium - Silty Clay	Clay, Silty



ID	Location	LEX Code	Description	Rock description
27	419m NW	LOFT-DMTN	Lowestoft Formation - Diamicton	Diamicton
28	474m W	SUPNM- UNKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry
29	483m N	GFDMP-XSV	Glaciofluvial Deposits, Mid Pleistocene - Sand And Gravel	Sand And Gravel
30	496m W	SUPNM- UNKNOWN	Superficial Theme Not Mapped [for Digital Map Use Only] - Unknown/unclassified Entry	Unknown/unclassified Entry

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

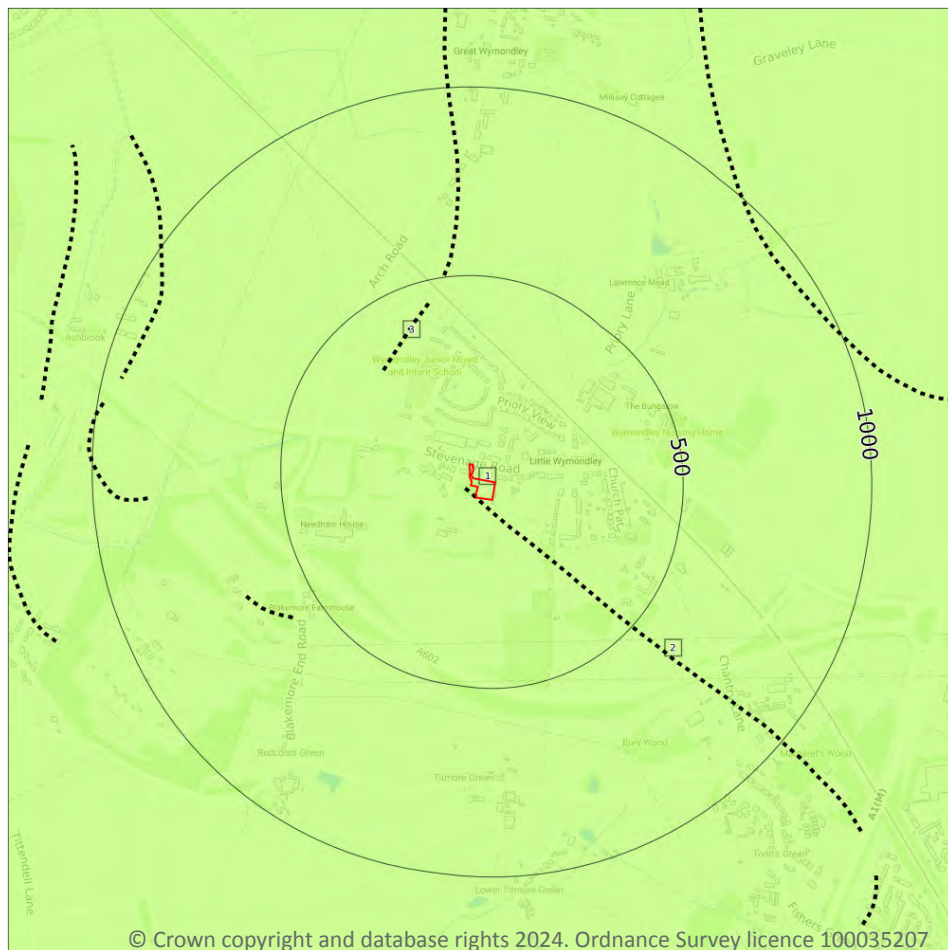
0

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 81](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	HNCK-CHLK	Holywell Nodular Chalk Formation And New Pit Chalk Formation (undifferentiated) - Chalk	Turonian Age - Cenomanian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

2

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.

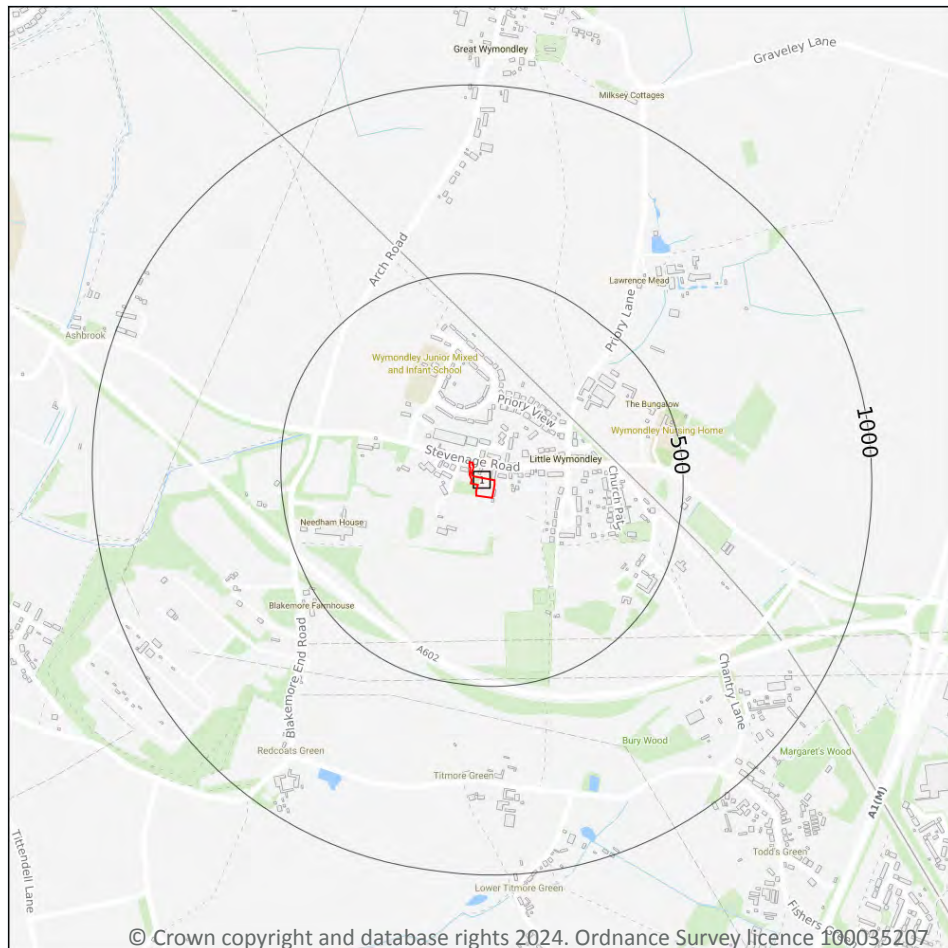
Features are displayed on the Geology 1:10,000 scale - Bedrock map on [page 81](#) >

ID	Location	Category	Description
2	On site	LANDFORM	Buried channel or valley margin
3	338m NW	LANDFORM	Buried channel or valley margin

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.

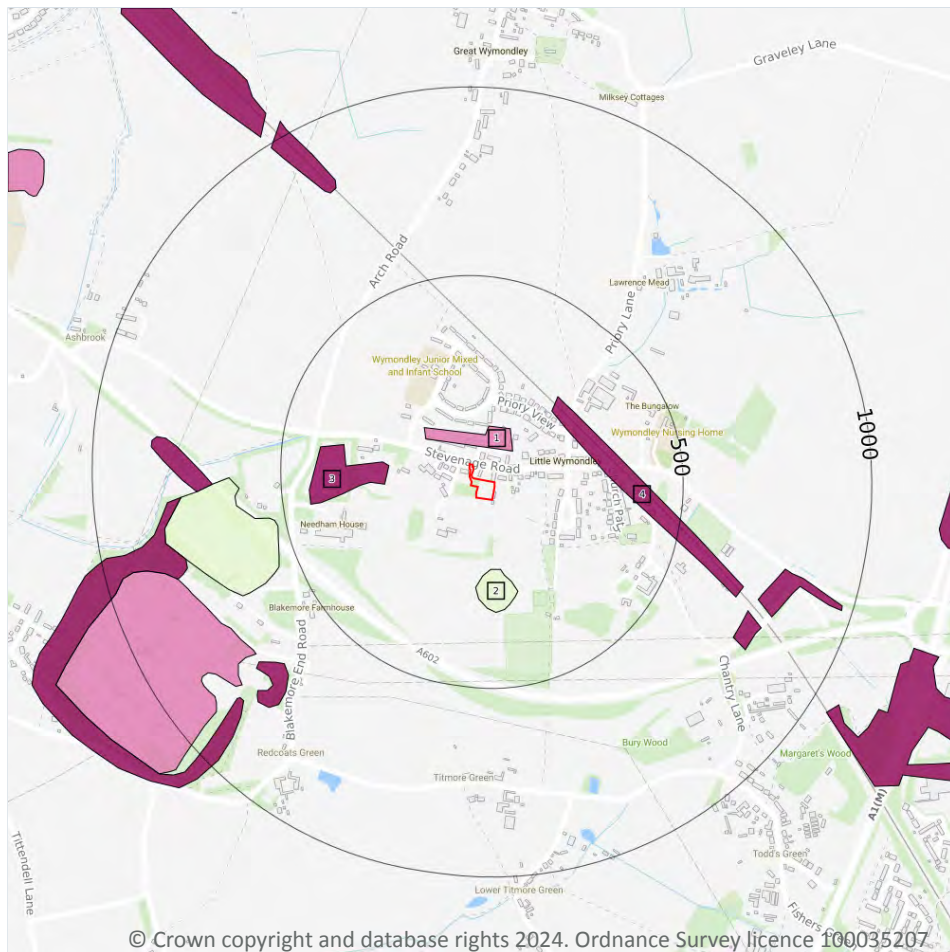
Features are displayed on the Geology 1:50,000 scale - Availability map on [page 83](#) >

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



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

15.2 Artificial and made ground (50k)

Records within 500m

4

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on [page 84](#) >

ID	Location	LEX Code	Description	Rock description
1	50m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	184m S	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	214m W	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	237m NE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT



This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

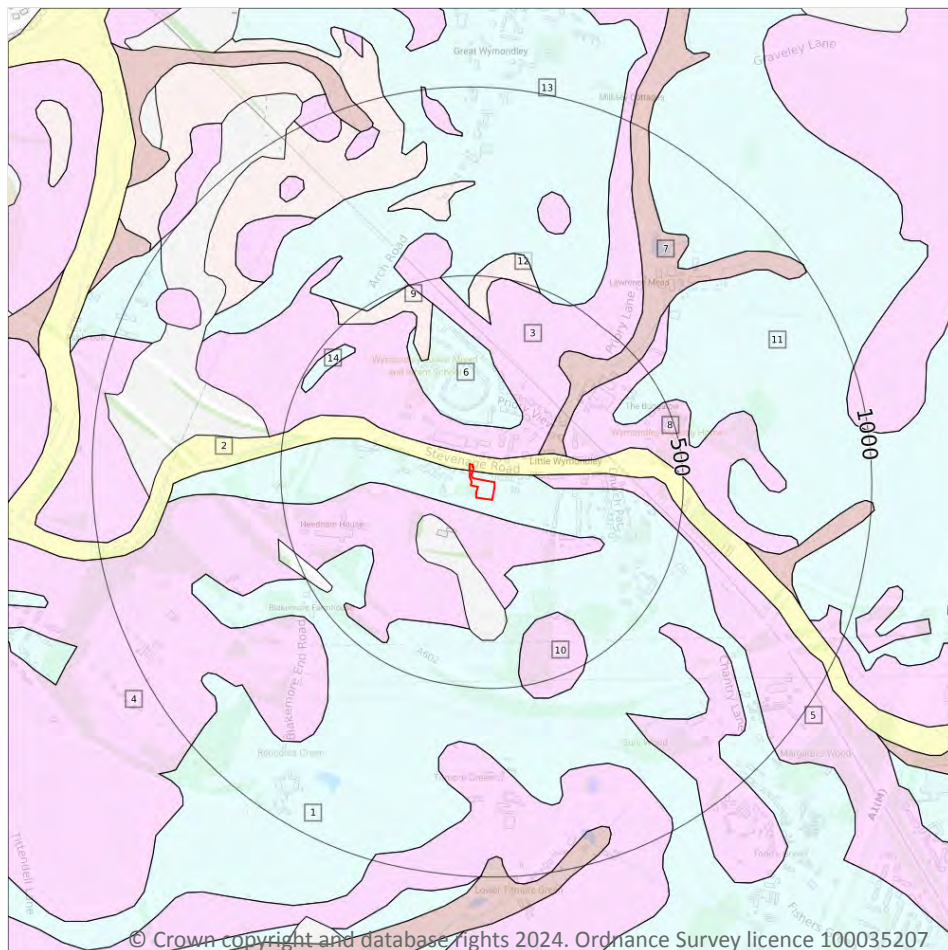
0

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

14

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 86](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON
2	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	26m N	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL
4	35m SW	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
5	104m E	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL
6	105m N	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON
7	138m NE	HEAD- XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
8	203m E	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL
9	299m NW	GLLMP-XCZ	GLACIOLACUSTRINE DEPOSITS, MID PLEISTOCENE	CLAY AND SILT
10	339m S	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL
11	359m NE	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON
12	375m N	GLLMP-XCZ	GLACIOLACUSTRINE DEPOSITS, MID PLEISTOCENE	CLAY AND SILT
13	416m N	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON
14	425m NW	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	4
---------------------------	----------

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	Intergranular	High	Very Low
On site	Mixed	Moderate	Low
26m N	Intergranular	Very High	High
35m SW	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

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

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

This data is sourced from the British Geological Survey.



15.7 Landslip permeability (50k)

Records within 50m

0

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

This data is sourced from the British Geological Survey.



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

2

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.

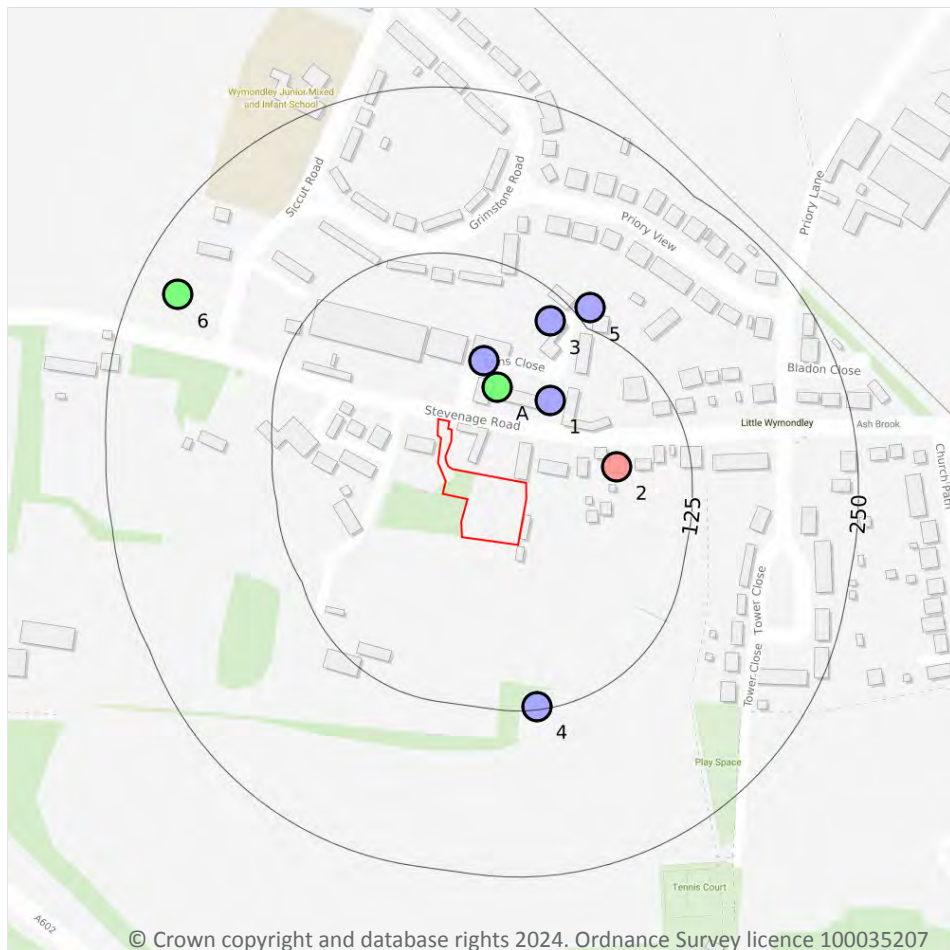
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 89 >](#)

ID	Location	Category	Description
2	23m SW	LANDFORM	Approximate margin of buried (superficial deposit-filled) channel or valley
3	330m NW	LANDFORM	Approximate margin of buried (superficial deposit-filled) channel or valley

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline

Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m

8

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

Features are displayed on the Boreholes map on [page 91](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	44m N	521310 227460	ELMS YARD STEVENAGE ROAD LT WYMONDLEY 2	15.0	N	533772 ↗
A	52m N	521300 227480	ELMS YARD STEVENAGE ROAD LT WYMONDLEY TP 3	3.0	N	533770 ↗

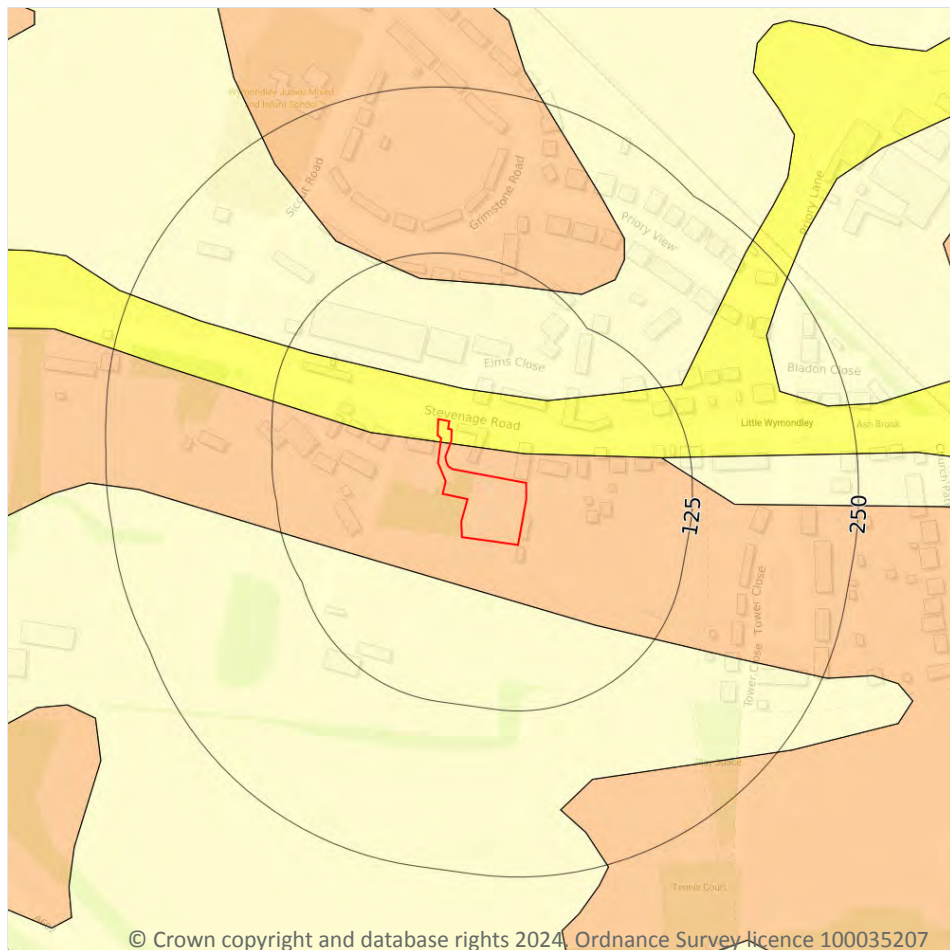


ID	Location	Grid reference	Name	Length	Confidential	Web link
1	65m NE	521350 227450	ELMS YARD STEVENAGE ROAD LT WYMONDLEY TP 2	3.0	N	533769 ↗
2	69m E	521400 227400	200 YD W OF RAILWAY BRIDGE, WYMONDLEY	35.05	N	533507 ↗
3	107m N	521350 227510	ELMS YARD STEVENAGE ROAD LT WYMONDLEY TP 1	1.6	N	533768 ↗
4	122m S	521340 227220	BLAKEMORE END LITTLE WYMONDLEY 3	5.79	N	533472 ↗
5	136m NE	521380 227520	ELMS YARD STEVENAGE ROAD LT WYMONDLEY 1	10.0	N	533771 ↗
6	217m NW	521070 227530	OLE NO.W1 - INVESTIGATION	11.5	N	12958080 ↗

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

4

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 93](#) >

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
On site	Low	Ground conditions predominantly medium plasticity.
26m N	Negligible	Ground conditions predominantly non-plastic.

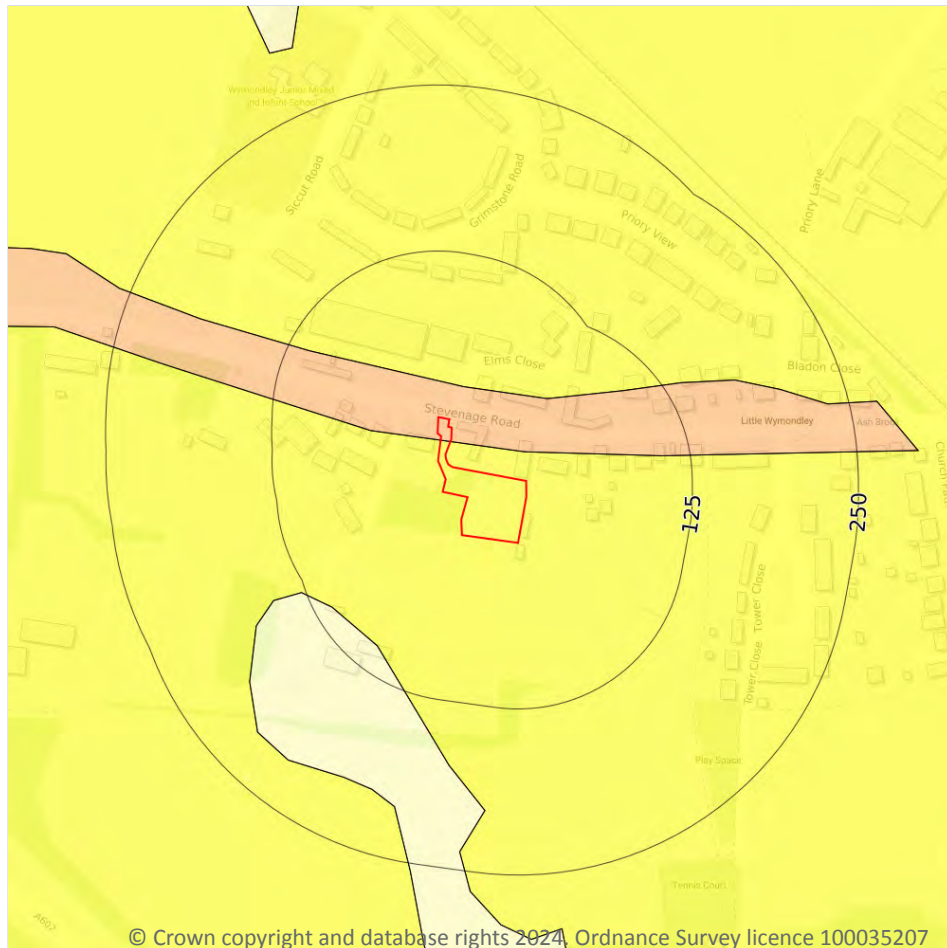


Location	Hazard rating	Details
35m SW	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

2

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

Features are displayed on the Natural ground subsidence - Running sands map on [page 95](#) >

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

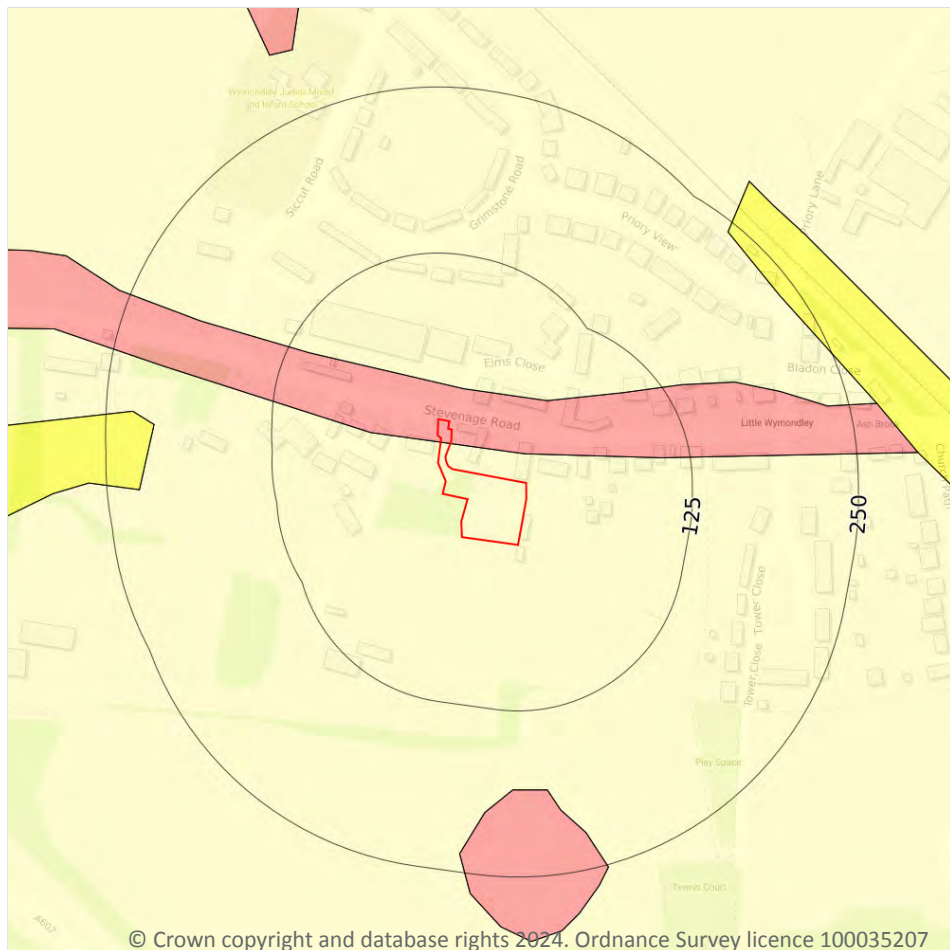


Location	Hazard rating	Details
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

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

3

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 97](#) >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
On site	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.



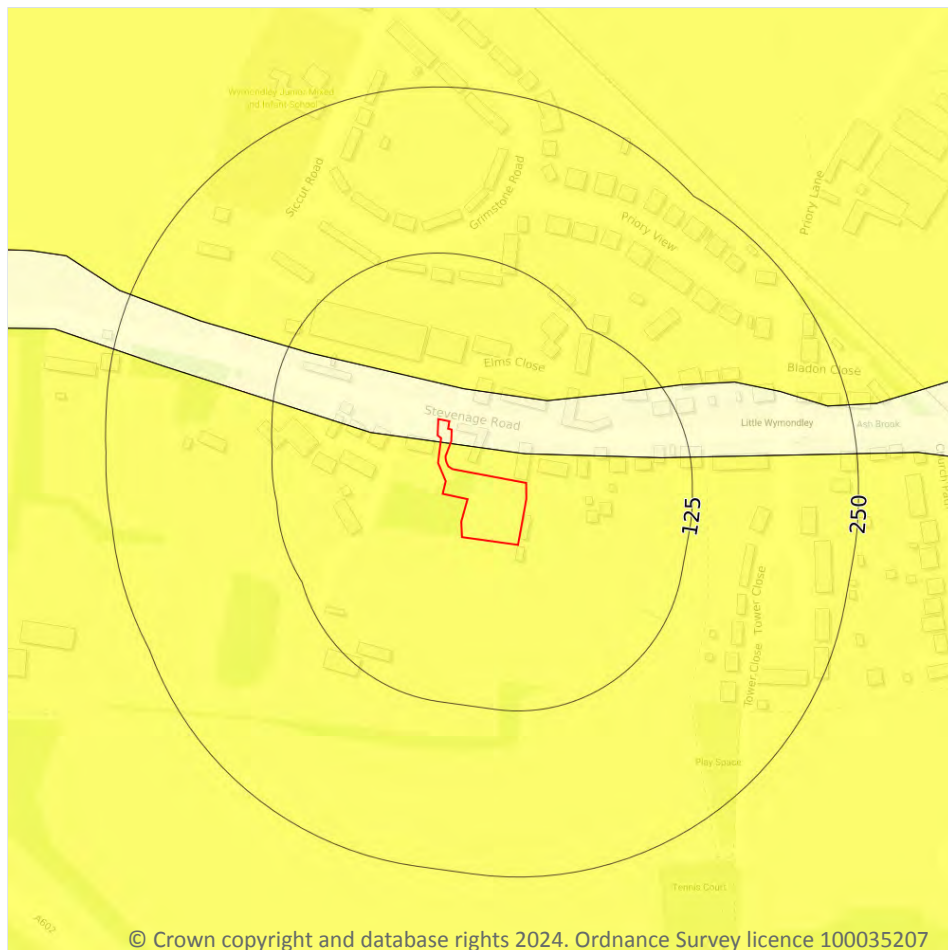
Location	Hazard rating	Details
----------	---------------	---------

26m N	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

3

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 99](#) >

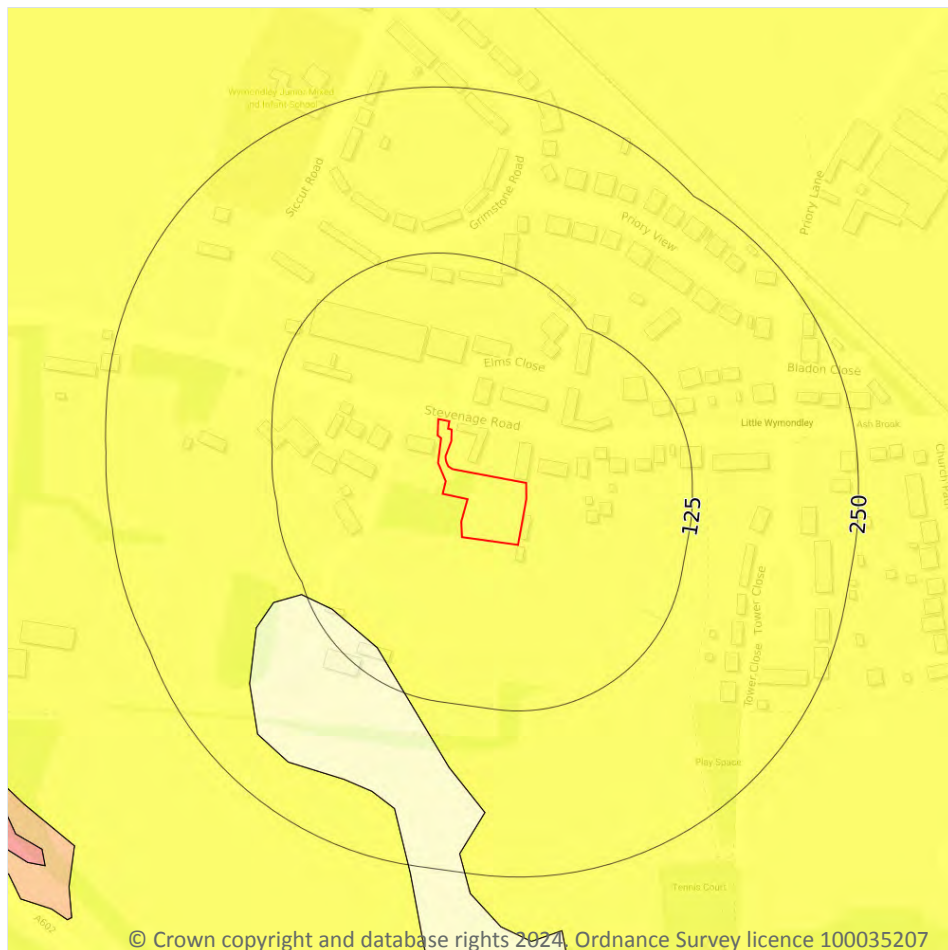
Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
26m N	Very low	Deposits with potential to collapse 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.

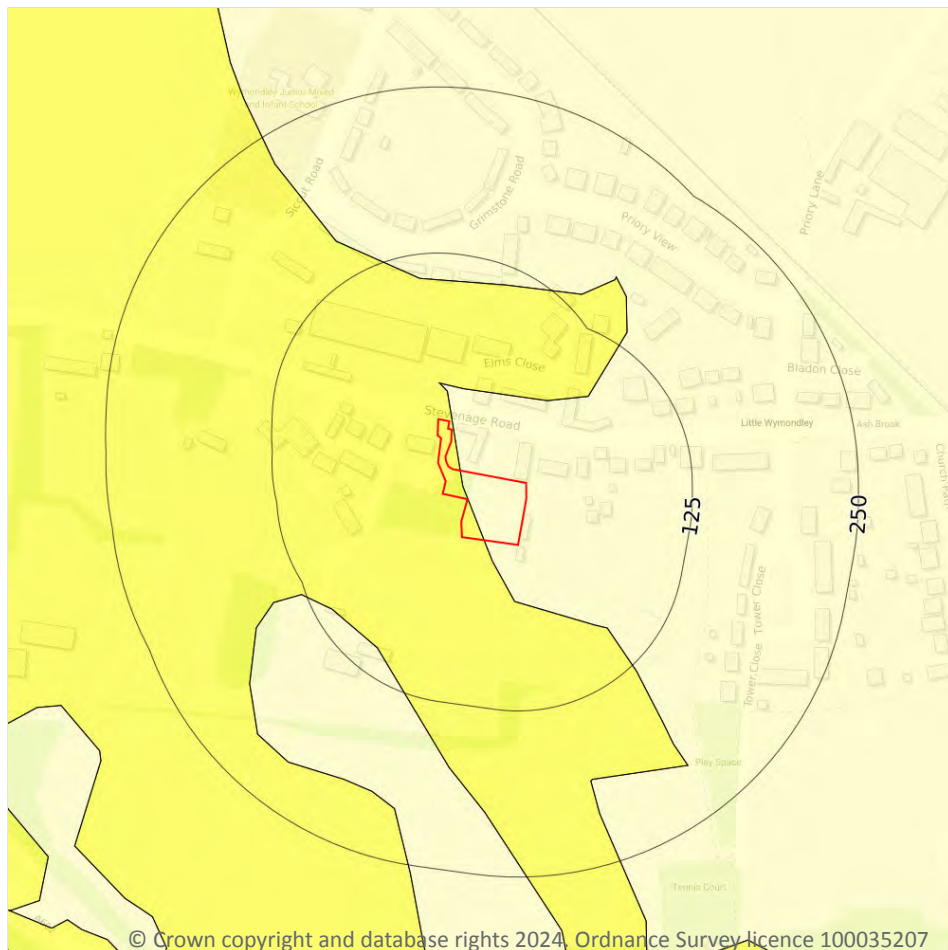
Features are displayed on the Natural ground subsidence - Landslides map on [page 101](#) >

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

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 102 >](#)

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

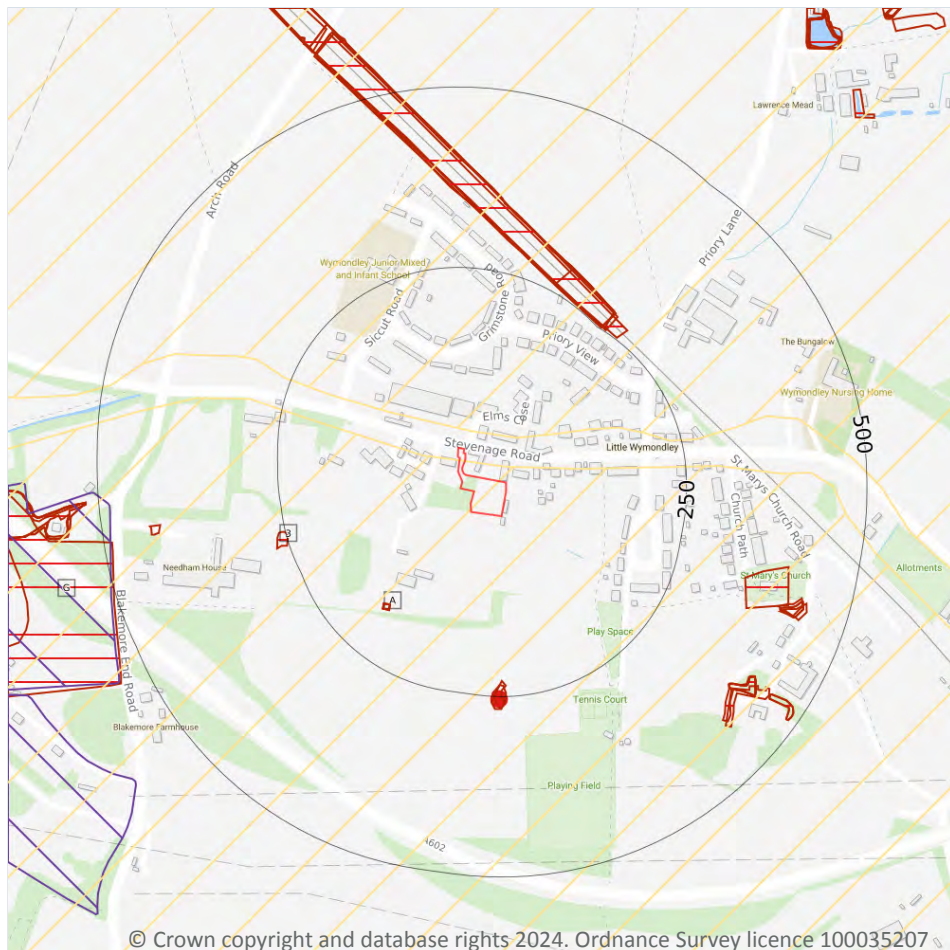


Location	Hazard rating	Details
On site	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.

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

1

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

Features are displayed on the Mining and ground workings map on [page 104](#) >

ID	Location	Details	Description
B	253m S	Name: Little Wymondley Chalk Pit Address: Wymondley, HITCHIN, Hertfordshire Commodity: Chalk Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	6
----------------------------	----------

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 104 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	170m SW	Reservoir	1946	1:10560
A	171m SW	Reservoir	1946	1:10560
A	171m SW	Reservoir	1922	1:10560
B	228m S	Unspecified Ground Workings	1980	1:10000
B	234m S	Chalk Pit	1897	1:10560
3	248m W	Gravel Pit	1884	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0
-----------------------------	----------

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

This data is sourced from Ordnance Survey/Groundsure.



18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

1

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.

Features are displayed on the Mining and ground workings map on [page 104 >](#)

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
G	485m W	Wymondley	Sand and gravel	Surface mineral working	Valid	09/12/49

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 104 >](#)

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.
2	26m 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.

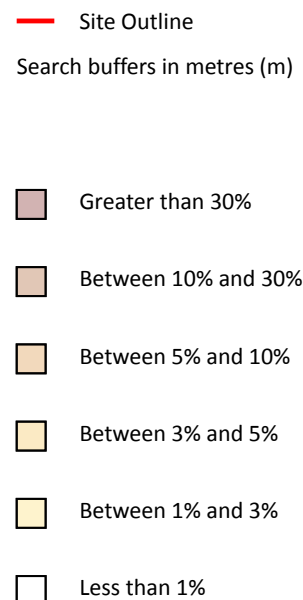
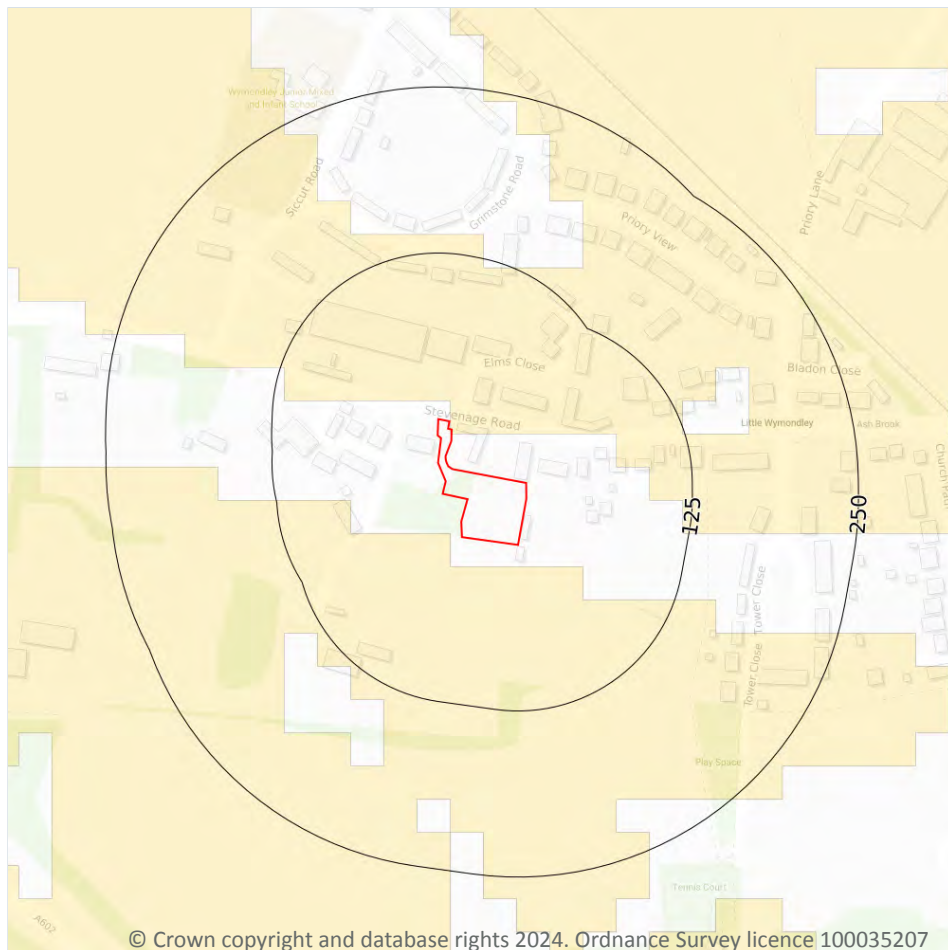
Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over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

2

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

Features are displayed on the Radon map on [page 112](#) >

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



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

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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

4

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
26m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
35m SW	15 - 25 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: www.groundsure.com/terms-and-conditions-april-2023/ ↗.



APPENDIX 2

REPORT LIMITATIONS

This contract was completed by Earth Environmental & Geotechnical Ltd on the basis of a defined programme and scope of works and terms and conditions agreed with the client. This report was compiled with all reasonable skill, and care, bearing in mind the project objectives, the agreed scope of works, the prevailing site conditions, the budget and staff resources allocated to the project.

Other than that expressly contained in the above paragraph, Earth Environmental & Geotechnical Ltd provides no other representation or warranty whether express or implied, is made in relation to the services. Unless otherwise agreed this report has been prepared exclusively for the use and reliance of the client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon, or transferred to, by any other party without the written agreement of a Director of Earth Environmental & Geotechnical Ltd.

If a third party relies on this report, it does so wholly at its own and sole risk and Earth Environmental & Geotechnical Ltd disclaims any liability to such parties.

It is Earth Environmental & Geotechnical Ltd understanding that this report is to be used for the purpose described in the introduction to the report. That purpose was an important factor in determining the scope and level of the services. Should the purpose for which the report is used, or the proposed use of the site change, this report will no longer be valid and any further use of, or reliance upon the report in those circumstances by the client without Earth Environmental & Geotechnical Ltd review and advice shall be at the client's sole and own risk.

The report was written in 2024 and should be read in light of any subsequent changes in legislation, statutory requirements and industry best practices. Ground conditions can also change over time and further investigations or assessment should be made if there is any significant delay in acting on the findings of this report. The passage of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the report inaccurate or unreliable. The information and conclusions contained in this report should not be relied upon in the future without the written advice of Earth Environmental & Geotechnical Ltd. In the absence of such written advice of Earth Environmental & Geotechnical Ltd, reliance on the report in the future shall be at the client's own and sole risk. Should Earth Environmental & Geotechnical Ltd be requested to review the report in the future, Earth Environmental & Geotechnical Ltd shall be entitled to additional payment at the then existing rate or such other terms as may be agreed between Earth Environmental & Geotechnical Ltd and the client.

The observations and conclusions described in this report are based solely upon the services that were provided pursuant to the agreement between the client and Earth Environmental & Geotechnical Ltd. Earth Environmental & Geotechnical Ltd has not performed any observations, investigations, studies or testing not specifically set out or mentioned within this report.

Earth Environmental & Geotechnical Ltd is not liable for the existence of any condition, the discovery of which would require performance of services not otherwise contained in the services. For the avoidance of doubt, unless otherwise expressly referred to in the introduction to this report, Earth Environmental & Geotechnical Ltd did not seek to evaluate the presence on or off the site of electromagnetic fields, lead paint, radon gas or other radioactive materials.

The services are based upon Earth Environmental & Geotechnical Ltd observations of existing physical conditions at the site gained from a walkover survey of the site together with Earth Environmental & Geotechnical Ltd interpretation of information including documentation, obtained from third parties and from the client on the history and usage of the site. The findings and

recommendations contained in this report are based in part upon information provided by third parties, and whilst Earth Environmental & Geotechnical Ltd have no reason to doubt the accuracy and that it has been provided in full from those it was requested from, the items relied on have not been verified.

No responsibility can be accepted for errors within third party items presented in this report. Further Earth Environmental & Geotechnical Ltd was not authorised and did not attempt to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the services. Earth Environmental & Geotechnical Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, the discovery of which inaccuracies required the doing of any act including the gathering of any information which was not reasonably available to Earth Environmental & Geotechnical Ltd and including the doing of any independent investigation of the information provided to Earth Environmental & Geotechnical Ltd save as otherwise provided in the terms of the contract between the client and Earth Environmental & Geotechnical Ltd.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions can also be variable and as investigation excavations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this report. The extent of the limited area depends on the soil and groundwater conditions, together with the position of any current structures and underground facilities and natural and other activities on site. In addition, chemical analysis was carried out for a limited number of parameters [as stipulated in the contract between the client and Earth Environmental & Geotechnical Ltd] based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

The groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The normal speed of investigation usually does not permit the recording of an equilibrium water level for any one water strike. Moreover, groundwater levels are subject to seasonal variation or changes in local drainage conditions and higher groundwater levels may occur at other times of the year than were recorded during this investigation.

Any site drawing(s) provided in this report is (are) not meant to be an accurate base plan but is (are) used to present the general relative locations of features on, and surrounding, the site.