GROUND CONSULTANTS LTD
ENVIRONMENTAL & GEOTECHNICAL SPECIALISTS

PHASE 1
PRELIMINARY RISK ASSESSMENT (PRA)

Little Callestock Farm, Zelah, Truro

TR4 9HB

For Mr & Mrs Down

Our Ref: 23525

08 November 2023

Ground Consultants Limited
Unit 67, Clear Space, Dunveth Business Park, West Hill, Wadebridge
PL27 7FE
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Company Registration Number: 13561213

ENVIRONMENTAL GEOTECHNICAL SITE INVESTIGATION

Project

Little Callestock Farm, Zelah, Truro TR4 9HB

Report Type

Phase 1 Preliminary Risk Assessment (PRA)

Client

Mr & Mrs Down

Project Ref

23525

Date

08 November 2023

Prepared by

Frank Westcott
Technical Consultant

Checked by

Dan Jobson
Managing Director

Table of Contents

Figures

Appendices

Tables

Executive Summary

Commissioning	Ground Consultants Limited (GCL) were commissioned by Laurence Associates on behalf of Mr & Mrs Down to undertake a Phase I Preliminary Risk Assessment at the site known as 'Little Callestock Farm, Zelah, Truro TR4 9HB.' GCL were formally instructed to proceed via email on the 25th October 2023.	
Development Proposals	It is proposed to develop the site for an agricultural workers dwelling.	
Site History	On Site: The site was part of an agricultural field prior to 2005. Between 2005 and the present, the site has been progressively laid to hard standing. Off Site: The farmstead north-west of the site was present from before the earliest (1880) mapping and has expanded incrementally thereafter. A barn to the north, and a new dwelling to the south, have been developed since 2005.	
Geology	The geological map shows no superficial deposits to be present on site. The geological map indicates that the site is underlain by the Grampound Formation of Devonian age formed between 394.3 and 378.9 million years ago. The BGS describes this unit as "Thinly interlaminated grey slaty mudstone and mid-grey siltstone, weathering yellowish green, with sporadic thin beds of sandstone and sparse lenticular limestone."	
Conceptual Site Model Summary	**Source**	**Risk Rating**
	On Site: Radon Gas	**High**
	On Site: Heavy Metals	**Moderate**
Recommendations	It is recommended that a Phase II Site Investigation be implemented in order to identify, quantify and delineate any potential areas of contamination on site. The Phase II Site Investigation should also include a geotechnical assessment of the site. The Phase II Investigation will be aimed at identifying possible sources of contamination highlighted in the Preliminary Conceptual Model. Full radon protective measures are required for the proposed development in-line with BRE guidelines. Additionally, inspection of foundation trenches by a mining consultant has been recommended. In the event unexpected contamination is found during development, work should cease until the material can be identified and remediated appropriately. All site workers should be equipped with the correct PPE and have undertaken suitable risk assessments, job safety and environmental analysis before work commences. Waste material to be removed from site should be handled by a suitably licensed waste contractor.	

1 INTRODUCTION

1.1 Commissioning

Ground Consultants Limited (GCL) were commissioned by Laurence Associates on behalf of Mr & Mrs Down to undertake a Phase I Preliminary Risk Assessment at the site known as 'Little Callestock Farm, Zelah, Truro TR4 9HB.' GCL were formally instructed to proceed via email on the 25th October 2023.

This report has been prepared by GCL solely for the benefit of the client. It shall not be relied upon or transferred to any third party without the prior written authorisation of GCL.

1.2 Existing Reports

GCL has not been made aware of any previous land contamination reports commissioned for this site.

1.3 Scope and Objectives

The objective of this desk study is;

- ✓ To provisionally identify any land contamination associated with the proposed development and to support the discharge of relevant planning conditions and/or building control requirements.
- ✓ To provisionally assess the risk of ground instability
- ✓ To identify the need for investigation or remediation works to demonstrate that the site is suitable for use.

Any recommendations for further works have been made as deemed appropriate, based upon the findings of the investigation.

This assessment has been undertaken with guidance from BS10175:201, Environment Agency report CLR11, LCRM, and as such represents a Phase 1 Desk Study / Qualitative Risk Assessment.

1.4 Limitations

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

Should additional information become available which may influence the report conclusions, GCL reserves the right to review such information and, if warranted, to alter the opinions accordingly.

The conclusions and recommendations of this report are valid for a period of 12 months from the date of issue. Outside of this time frame the report will require reviewing by a suitably qualified geoenvironmental engineer / environmental scientist, to ensure that the report complies with any changes to industry standards, policies and/or guidelines.

It is recommended that a copy of this report be submitted to the local authority for approval, prior to commissioning any further work which may be required.

1.5 Information Sources

This assessment has been based upon mapping and information obtained from a number of trusted third-party sources. Although we only use information from trusted sources, GCL cannot accept any responsibility for any inaccuracy of third party information. The sources used in this assessment are listed below:

- ✓ Environmental and historical data supplied by Groundsure
- ✓ Zetica Unexploded Ordnance (UXO) risk map
- ✓ British Geological Mapping (both online viewer and map scans)

1.6 Proposed Development

It is proposed to develop the site for an agricultural workers dwelling. A planning application has not been submitted at the time of preparation of this report.

2 SITE LOCATION AND DESCRIPTION

2.1 Site Location and Layout

The site is located at Little Callestock (Callestock Vean), 1.5km north-west of the A30 near Zelah. The site is approximately centred on National Grid Reference SX 79661 51486.

The site is irregular in shape and covers an area of 0.06ha.

A site location plan (SLP) is contained in Figure 2.1, to the rear of the report.

2.2 Surrounding Area

Table 2.1: Surrounding Land Use

Direction	Land Use
North	Agricultural barn
East	Holiday cottages, farm buildings, woodland
South	Single dwelling and arable field
West	Arable field

2.3 Site Walkover Survey

GCL conducted a site walkover survey on 1st November 2023. Photographs from the walkover survey are provided in Appendix A.

The site is currently an expanse of gravel, partially used as a driveway for the adjacent dwelling to the south and agricultural barn to the north [Plates 1 and 3]. A small sections of an adjacent field projects onto the west of the site.

Topographically speaking, the site slopes in a westerly direction and is split across two levels, with the west of the site approximately 1-2m lower than the east [Plates 1 and 4]. A stone bank with granite posts overlaid, divides the two elevations, running north to south, through the centre of the site.

A dwelling is situated to the south of the site with a grass field running along the western boundary and the majority of the northern boundary. The east of the site joins the nearby road.

2.4 Ecological Observations

No invasive species were noted in or around the immediate surroundings of the site during the site walkover. However, it should be noted that conducting an extensive survey to conclusively determine the presence or absence of invasive species falls beyond the scope of this investigation. Therefore, it is advisable to consider engaging a specialist surveyor, if needed, to thoroughly assess this matter.

2.5 Anecdotal Information

None.

3 SITE HISTORY

3.1 Historical Map Review

Using historical Ordnance Survey mapping and recent aerial photography provided by Groundsure, an overview of pertinent findings relating to the site and its surroundings can be found below in Table 3.1.

Table 3.1: Summary of Historical Site Usage

On Site	Surroundings	Date & Scale
The site is undeveloped, part of a large field in assumed agricultural use	Range of assumed agricultural buildings 15-85m north-east. Orchard 60m north-east. Remainder of surrounding area assumed agricultural (west, north) and woodland (south-east)	1880 County Series 1:2,500
No significant changes	No significant changes	1888 County Series 1:10,560
No significant changes	No significant changes	1906-08 County Series 1:2,500, 1:10,560
No significant changes	No significant changes	1958 Provisional 1:10,560
No significant changes	Further farm buildings and silos 50m-60m north-east. Dwelling/lodge 60m south-east. Glass house 100m east.	1973-76 National Grid 1:2,500, 1:10,000
No significant changes	No significant changes	1993-95 National Grid 1:2,500, 1:10,000
Site undeveloped, part of arable field	Large barn constructed 70m north-east; extensive range of farm buildings present to north-east of site.	1999 Aerial Photo
No significant changes	No significant changes	2001-03 National Grid

		1:1,250, 1:10,000
Eastern edge of site laid to hard standing	Barn abutting site to north. Further farm buildings 100m north-east.	2005, 2013 Aerial Photo
Scale too small to show detail	No significant changes	2010, 2023 National Grid 1:10,000
Eastern half of site laid to hard standing	New dwelling abutting site to south.	2019, 2022 Aerial Photo

3.2 Site History Summary

On Site: The site was part of an agricultural field prior to 2005. Between 2005 and the present, the site has been progressively laid to hard standing.

Off Site: The farmstead north-west of the site was present from before the earliest (1880) mapping and has expanded incrementally thereafter. A barn to the north, and a new dwelling to the south, have been developed since 2005.

3.3 UXO Risk

The risk to the site and its surroundings from the presence of UXO is low (see Appendix D).

4 GEOLOGICAL & GEOTECHNICAL SETTING

4.1 Geological Setting

Reference has been made to the BGS geological mapping at 1:10,000 and 1:50,000 scales in the Groundsure report, as well as the BGS online map viewer.

The geological map shows no superficial deposits to be present on site.

The geological map indicates that the site is underlain by the Grampound Formation of Devonian age formed between 394.3 and 378.9 million years ago. The BGS describes this unit as “Thinly interlaminated grey slaty mudstone and mid-grey siltstone, weathering yellowish green, with sporadic thin beds of sandstone and sparse lenticular limestone.”

4.2 Borehole Records

There are no BGS borehole records within 100m of the site.

4.3 Anticipated Geological Sequence

Based on our experience of the local area, as well as BGS mapping, borehole logs, and nearby site investigation reports, it is anticipated that the following geological sequence can be expected;

Table 4.1: Anticipated Geological Sequence

Strata	Description	Estimated Thickness (m)	Estimated Permeability	Location
Made Ground	Reworked natural material with potential anthropogenic components including brick and concrete.	0 - 1	Unsuitable for conventional drainage	Around and beneath existing structures and hard standing
Topsoil	Brown friable clay or silt	0.2 – 0.4	Unsuitable for conventional drainage	Across the site
Weathered Grampound Formation	Sandy gravel of sandstone and siltstone	20m+	Moderate – good	Across the site

4.4 Potential for Ground Instability

There are many natural and human-induced geotechnical processes which can give rise to ground stability issues. While in all cases instability may arise whether or not there is any development on the surface, it is important to recognise that the development itself or the intensification of development may be the triggering factor, which initiates instability problems.

The risks posed by common types of unstable ground are tabulated below. The assessment of risk is based upon the proposed development, using a range of information sources, including geological and topographical mapping, as well as Groundsure data.

Table 4.2: Unstable Ground Risk Summary

Instability Risk	Risk Rating	Details
Shrinking or Swelling Clay	Very Low	Ground conditions predominantly low plasticity.

Running Sand	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on land use due to running conditions.
Compressible Deposits	Negligible	Compressible strata are not thought to occur.
Collapsible Deposits	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
Landslides	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.
Ground Dissolution of Soluble Rocks	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.

4.5 Mining, Ground Workings & Natural Cavities

A mining search for the adjoining property to the south, dated October 2016, has been made available by the client. The plan provided with the report also covers the area of the current site. The mine search was carried out by Cornwall Consultants Ltd under reference GWH/LAS/CMS/119169. The mine search is contained as Appendix E, and may be summarised as follows;

The site is located within an area of former mining activity, however Cornwall Consultants records do not indicate the presence of any mine workings or shafts, although they note that the abandoned mine plans of the area are poor or incomplete. Based on the evidence available, Cornwall Consultants believe that the property is unlikely to be affected by subsidence caused by historical mining, however they recommended precautionary foundation trench inspection should be carried out.

No surface or underground mining features were noted on the historical maps, and none were noted in the Groundsure Data (Appendix B).

4.6 Groundwater

It is unlikely that groundwater will be shallow in this area. It is anticipated that groundwater will flow to the southwest.

5 ENVIRONMENTAL, HYDROLOGICAL & HYDROGEOLOGICAL SETTING

5.1 Hydrology & Hydrogeology

A summary of the hydrological and hydrogeological setting is tabulated below, with respect to the anticipated geological sequence set out in section 4.1.

Table 5.1: Overview of the hydrological and hydrogeological setting

Hydrogeology	
Superficial Aquifer	There are no superficial deposits recorded on site.
Bedrock Aquifer	The Grampound Formation is designated as a "Secondary A" Aquifer. The Environment Agency describes this type of aquifer as 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
Groundwater Vulnerability	Bedrock geology is designated as high vulnerability. The flow mechanism is defined as well connected fractures.
Groundwater Abstractions	The nearest Groundwater water abstraction license is 16m east of the site. The license relates to abstraction for general farming and domestic uses. There are no more recorded groundwater abstraction licenses within 500m of the site.
Surface Water Abstractions	There are no surface water abstraction licences within 500m of the site.
Source Protection Zones	The site is not within a groundwater Source Protection Zone.
Hydrology	
Ordnance Survey Water Network and Surface Water Features	The nearest surface watercourse is an un-named stream, 26m east of the site. The stream is not influenced by normal tidal action.
Water Framework Directive (WFD) Surface Water Body Catchments	The site is within the Bolingey Stream surface water body catchment. The Bolingey Stream is 1,498m west of the site.
Flooding and Drainage	
Risk of Flooding from Rivers and Sea (RoFRaS)	The site is not in an area considered to be at risk from flooding from rivers and the sea.
Historical Flood Events	None recorded.
Flood Defences	None within 250m of the site.
Areas Benefitting from Flood Defences	The site is not in an area benefitting from flood defences.
Flood Storage Areas	None within 250m of the site.
Flood Zones	The site is not within a Zone 2 or Zone 3 area at risk from flooding.
Surface Water Flooding	The site is considered to be at negligible risk from surface water flooding.
Groundwater Flooding	The site is considered to be at a negligible risk of groundwater flooding.

5.2 Environmental Setting

The following table summarises all pertinent environmental factors relating to the site, with respect to the ground conditions set out in section 4.

Table 5.2: Environmental Setting

Radon	
Percentage of Properties in above Action Level for Radon	**Required Protection Levels**
Between 10% and 30%	Full Radon Protection

Radon protection measures should be installed in line with Building Research Establishment (BRE) 211 "Guidance on Protective Measures for New Buildings."

Background Estimated Soil Chemistry (mg / kg)		
Arsenic	35 - 45	Levels of heavy metals (particularly lead) are predicted by BGS to significantly exceed the relevant generic assessment criteria. Other databases (UKSO, Tellus) do not predict exceedances for lead, however soil sampling will be required to further quantify the risk. Bioaccessibility testing may bring the results to within acceptable levels.
Cadmium	1.8	
Chromium	60 - 90	
Lead	600->1200	
Nickel	15 – 30	

Sensitive Land Uses			
Sensitive Land Use	**Within pertinent radius of site? (250m)***		**Distance & Direction (Comments if applicable)**
	Yes	**No**	
Site of Special Scientific Interest	☐	☒	
Ramsar Sites	☐	☒	
Special Areas of Conservation	☐	☒	
Special Protection Area	☐	☒	
National Nature Reserves	☐	☒	
Local Nature Reserves	☐	☒	
Designated Ancient Woodland	☐	☒	
Biosphere Reserves	☐	☒	
Forest Parks	☐	☒	
Marine Conservations Zones	☐	☒	
Green Belt	☐	☒	
Proposed Ramsar Sites	☐	☒	
Possible Special Area of Conservation	☐	☒	
Potential Special Protection Areas	☐	☒	
Nitrate Sensitive Areas	☐	☒	
Nitrate Vulnerable Zones	☐	☒	

Waste & Landfill			
Environmental Source	**Within pertinent radius of site? (250m)***		**Distance & Direction (Comments if applicable)**
	Yes	**No**	
Active or Recent Landfill	☐	☒	
Historical Landfill (BGS, LA or EA)	☐	☒	
Historical Waste Sites	☐	☒	
Licensed Waste Sites	☐	☒	

**Initial search extent limited to 250m from site, unless source of contamination and/or sensitive receptor is considered significant enough to warrant a greater radius of up to 1,000m.*

Past and Present Land Uses

Land Use	Within pertinent radius of site? (100m)* Yes	No	Distance & Direction (Comments if applicable)
Historical Industrial Land Uses	☒	☐	➡ 48m east: Nurseries
Historical Tanks	☐	☒	
Historical Energy Features	☐	☒	
Historical Petrol Stations	☐	☒	
Historical Military Land	☐	☒	
Recent Industrial Land Uses	☐	☒	
Current Or Recent Petrol Stations	☐	☒	
Electricity Cables	☐	☒	
Gas Pipelines	☐	☒	
Sites Determined as Contaminated Land	☐	☒	
Control Of Major Accident Hazards	☐	☒	
Regulated Explosive Sites	☐	☒	
Hazardous Substance Storage/Usage	☐	☒	
Historical Licensed Industrial Activities	☐	☒	
Licensed Industrial Activities (Part A(1))	☐	☒	
Licensed Industrial Activities (Part A(2)/B)	☐	☒	
Radioactive Substance Authorisations	☐	☒	
Licensed Discharge to Controlled Water	☐	☒	
Pollutant Release to Surface Waters	☐	☒	
Pollutant Release to Public Sewer	☐	☒	
List 1 Dangerous Substances	☐	☒	
List 2 Dangerous Substances	☐	☒	
Pollution Incidents	☐	☒	

**Initial search extent limited to 100m from site, unless source of contamination and/or sensitive receptor is considered significant enough to warrant a greater radius of up to 1,000m.*

6 PRELIMINARY CONCEPTUAL MODEL

6.1 Introduction

A Preliminary Risk Assessment is underpinned by the conceptual model, which is based on the relationship between the source of contamination, potential receptors, and any pathway between. If a viable source, pathway and receptor is identified, an assessment of the risk is required. CIRIA C552 offers guidance on risk valuation, based on the likelihood of an event, and its severity.

The following table outlines the classification of probability, based on CIRIA C552;

Table 6.1: Classification of Probability

Classification	Definition
High Likelihood	A pollutant link has been identified and a pollution event is very likely in the short term and almost inevitable in the long term.
Likely	A pollutant link has been identified, and it is probable that an event will occur in the long term, and possible in the short term.
Low Likelihood	There is a pollutant linkage and circumstances are such that an event could occur, but it is not probable in the long term and even less likely in the short term.
Unlikely	There is a pollutant linkage but it is unlikely that and event would occur even in the very long term.

The following table outlines the classification of consequence, based on CIRIA C552;

Table 6.2: Classification of Consequence

Classification	Definition
Severe	Short term (acute) risk to human health likely to result in “significant harm” as defined by the Environmental Protection Act 1990 and/or short-term risk of pollution of sensitive water resources and/or catastrophic damage to buildings or property.
Medium	Long term (chronic) damage to human health likely to result in “significant harm” as defined by the Environmental Protection Act 1990 and/or significant pollution of sensitive water resources and/or significant change in a defined ecosystem.
Mild	Long term harm to human health but not significant as defined by the Environmental Protection Act 1990 and/or pollution of non-sensitive water resources and non-significant pollution of sensitive water resources.
Minor	Harm, not significant, but that could result in financial loss or cost implications. Non-permanent human health effects.

Following classification of the probability and severity, a risk category can be assigned. The following table, taken from CIRIA C552 summarises this process;

Table 6.3: Risk Classification Matrix

Risk Classification Matrix					
Taken from CIRIA C552		**Consequence**			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High Likelihood**	Very High	High	Moderate	Moderate / Low
	Likely	High	Moderate	Moderate / Low	Low
	Low Likelihood	Moderate	Moderate / Low	Low	Very Low
	Unlikely	Moderate / Low	Low	Very Low	Very Low

The risk categories are defined as follows;

Table 6.4: Risk Categories

Classification	Definition
Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard OR there is evidence that severe harm to a designated receptor is currently happening. Urgent investigation and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from an identified hazard. Urgent investigation is required and remedial works may be necessary.
Moderate	It is possible that harm could arise to a designated receptor from and identified hazard. However it is relatively unlikely that any such harm would be severe.
Low	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

6.2 Preliminary Conceptual Site Model

This conceptual site model has been undertaken with due regard to guidance provided in BS10175:2011, CLR11 and CIRIA C552. The assessment of risk from land contamination also pays due regard to the definition of contaminated land, as defined within Part 2A of the Environment Protection Act 1990. This legislation defines contaminated land as any land that is in such a condition that by reason of substances in, on or under the land:

- ✓ Significant harm is being caused or there is a significant possibility of such harm being caused; or
- ✓ Pollution of controlled water is being, or is likely to be, caused.

Potential sources of contamination identified from current activities and the history of the site and surrounding area are presented in table 6.5 below.

Table 6.5: Potential Sources of Contamination

Potential Sources	Contaminants of Concern
Natural Geology	Radon Gas
	Lead, arsenic

The conceptual site model is derived from an assessment of the above potential sources of contamination, using the criteria set out in CIRIA C552 and tables 6.1-6.4 above. The table, overleaf, is based on the proposed use and the site in its current condition.

6.3 Preliminary Conceptual Site Model Matrix

Table 6.6: Preliminary Conceptual Site Model

Preliminary Conceptual Model					
Source(s)	**Pathway(s)**	**Receptor(s)**	**Probability**	**Severity**	**Risk Assessment**
On Site: Radon Gas	Ingress into proposed buildings	Future site users	High Likelihood	Medium	**High Risk** – Development is within an area where between 10% and 30% of properties are above the action level.
On Site: Heavy Metals	Dermal contact Soil and dust ingestion and inhalation	Future site users Site workers Site flora and fauna	Likely	Medium	**Moderate Risk** – Levels of heavy metals (particularly lead) are predicted by BGS to significantly exceed the relevant generic assessment criteria. Other databases (UKSO, Tellus) do not predict exceedances for lead, however soil sampling will be required to further quantify the risk. Bioaccessibility testing may bring the results to within acceptable levels.

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 Geotechnical Considerations

Any Made Ground encountered on site will not suffice as a suitable bearing, therefore shallow foundations should be placed in the underlying natural material.

Conventional strip foundations may be viable at this site; however a site investigation will be required to confirm this. It would also be considered prudent to carry out soakaway testing in accordance with BRE 365 to asses the sites suitability for conventional drainage.

7.2 Conclusions

Development is within an area where between 10% and 30% of properties are above the action level for Radon.

Levels of heavy metals (particularly lead) are predicted by BGS to significantly exceed the relevant generic assessment criteria. Other databases (UKSO, Tellus) do not predict exceedances for lead, however soil sampling will be required to further quantify the risk. Bioaccessibility testing may bring the results to within acceptable levels.

It can be concluded that the site is likely to be suitable for the proposed development, once the recommendations contained within this report have been implemented.

7.3 Recommendations

It is recommended that a Phase II Site Investigation be implemented in order to identify, quantify and delineate any potential areas of contamination on site. The Phase II Site Investigation should also include a geotechnical assessment of the site.

The Phase II Investigation will be aimed at identifying possible sources of contamination highlighted in the Preliminary Conceptual Model.

Full radon protective measures are required for the proposed development in-line with BRE guidelines.

Additionally, inspection of foundation trenches by a mining consultant has been recommended in a mining search carried out for an adjacent property.

In the event unexpected contamination is found during development, work should cease until the material can be identified and remediated appropriately.

All site workers should be equipped with the correct PPE and have undertaken suitable risk assessments, job safety and environmental analysis before work commences.

Waste material to be removed from site should be handled by a suitably licensed waste contractor.

8 REFERENCES

BSI (2011) BS 10175:2011 +a1:2013 Investigation of Potentially Contaminated Sites – Code of Practice. London, British Standards Institution

Building Research Establishment (BRE) (2007) BR211 - Radon: Guidance on Protective Measures for New Buildings. Watford, BRE

CIRIA (2001) CIRIA C552 - Contaminated land risk assessment: A guide to good practice. London, CIRIA

CIRIA (2007) CIRIA C665 – Assessing Risks Posed by Hazardous Ground Gases to Buildings. London, CIRIA

Contaminated Land: Applications in Real Environments (CL:AIRE), Association of Geotechnical and Geo-environmental Specialists (AGS) and The Environmental Industries Commission (EIC) (2010) Soil Generic Assessment Criteria for Human Health Risk Assessment. London, CL:AIRE

Department of Communities and Local Government (2012) National Planning Policy Framework. London, DCLG

Environment Agency (2004) Contaminated Land Report 11 - Model Procedures for the Management of Land Contamination. Bristol, Environment Agency

Environment Agency (2005) Guidance on Assessing the Risk Posed by Land Contamination and Its Remediation on Archaeological Resource Management. Bristol, EA

Great Britain. Environmental Protection Act (1990). London, The Stationery Office

Great Britain. Environmental Damage (Prevention and Remediation) Regulations (2009). London, The Stationery Office

Great Britain. Water Act (2003). London, The Stationery Office

Great Britain. The Water Framework Directive (Standards and Classification) Directions (England and Wales) (2015). London, The Stationery Office

Land Quality Press (2015) The LQM/CIEH Suitable 4 Use Levels for Human Health Risk Assessment (2nd Edition). Nottingham, Land Quality Press

National House Building Council (NHBC), Environment Agency and Chartered Institute of Environmental Health (CIEH) (2008) Research & Development Publication 66: Guidance for the Safe Development of Housing on Land Affected by Contamination. Amersham, NHBC

Royal Institution of Chartered Surveyors (RICS) (2012) Japanese Knotweed and Residential Property. Coventry, RICS

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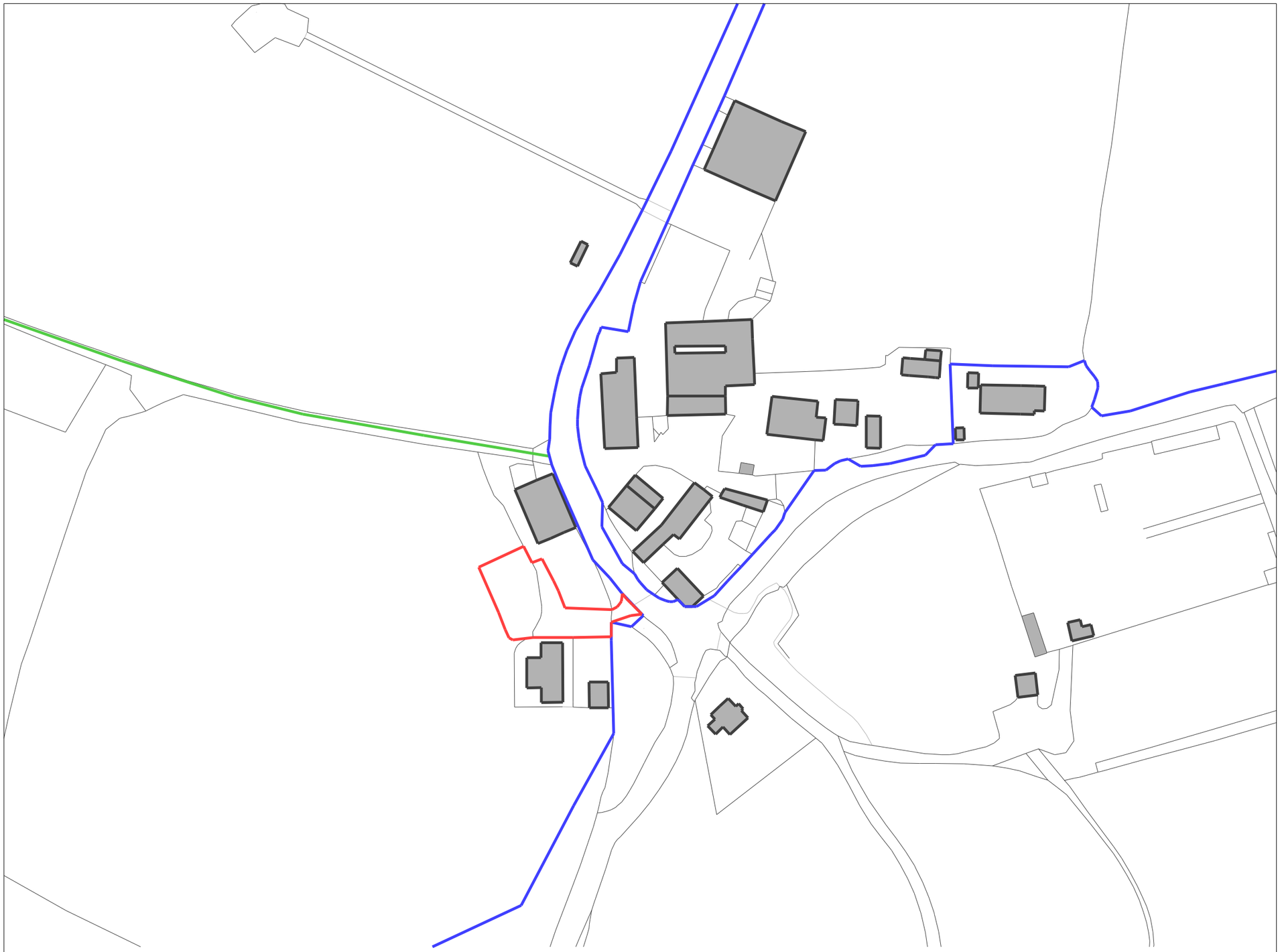
Figure 2.1

Site Location Plan

Plan may be provided by third party



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LOCATION PLAN
1:1250

1:1250

0 10m 20m 50m

N

Notes:

Site area: 651.37m²

Public right of way

Ownership area

Rev.	Description	Drawn	Date

planning | architecture | landscape

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Project Title:
Construction of Agricultural Worker's Dwelling

Project Address:
Little Callestock Farm
Zelah, Truro
TR4 9HB

Client:
Nick & Liz Down

Drawing Title:
LOCATION PLAN

Scale:	Drawn:
1:1250@A3	CN
Date: 07/23	Checked: AC
Drawing No: 23197-PL-00-01	Rev:

PLANNING

GCL GROUND CONSULTANTS LTD
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Appendix A

Site Photographs

SITE PHOTOGRAPHS

PLATE 1

PLATE 2

SITE:	Little Callestock Farm, Zelah, TR4 9HB
REF:	GCL23525_P1
CLIENT:	Nick and Liz Down

SITE PHOTOGRAPHS

PLATE 3

PLATE 4

SITE:	Little Callestock Farm, Zelah, TR4 9HB
REF:	GCL23525_P1
CLIENT:	Nick and Liz Down

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Appendix B

Environmental Data & Maps

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

LITTLE CALLESTOCK FARM, ROAD FROM ZELAH TO MIDDLECLOSE PLANTATIONS, ZELAH, TR4 9HB

Order Details

Date: 25/10/2023

Your ref: 23525

Our Ref: GCL-64P-5AU-SDM-63Z

Site Details

Location: 179661 051486

Area: 0.06 ha

Authority: Cornwall Council (Unitary) ↗

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

Certified B Corporation

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	4	29	-
17 >	1.2 >	Historical tanks >	0	0	1	1	-
17	1.3	Historical energy features	0	0	0	0	-
18	1.4	Historical petrol stations	0	0	0	0	-
18	1.5	Historical garages	0	0	0	0	-
18	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
19 >	2.1 >	Historical industrial land uses >	0	1	4	33	-
21 >	2.2 >	Historical tanks >	0	0	1	1	-
21	2.3	Historical energy features	0	0	0	0	-
22	2.4	Historical petrol stations	0	0	0	0	-
22	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
23 >	3.1 >	Active or recent landfill >	0	0	0	1	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
24	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
24	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
24	3.5	Historical waste sites	0	0	0	0	-
24 >	3.6 >	Licensed waste sites >	0	0	0	3	-
25 >	3.7 >	Waste exemptions >	0	0	31	5	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
29 >	4.1 >	Recent industrial land uses >	0	0	2	-	-
30	4.2	Current or recent petrol stations	0	0	0	0	-
30	4.3	Electricity cables	0	0	0	0	-
30	4.4	Gas pipelines	0	0	0	0	-
30	4.5	Sites determined as Contaminated Land	0	0	0	0	-

30	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
31	4.7	Regulated explosive sites	0	0	0	0	-
31	4.8	Hazardous substance storage/usage	0	0	0	0	-
31	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
31	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
31	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
32	4.12	Radioactive Substance Authorisations	0	0	0	0	-
32	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
32	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
32	4.15	Pollutant release to public sewer	0	0	0	0	-
32	4.16	List 1 Dangerous Substances	0	0	0	0	-
33	4.17	List 2 Dangerous Substances	0	0	0	0	-
33	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
33	4.19	Pollution inventory substances	0	0	0	0	-
33	4.20	Pollution inventory waste transfers	0	0	0	0	-
33	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
34 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
35 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
37 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
38	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
38	5.5	Groundwater vulnerability- local information	None (within 0m)				
39 >	5.6 >	Groundwater abstractions >	0	1	0	0	28
46	5.7	Surface water abstractions	0	0	0	0	0
46 >	5.8 >	Potable abstractions >	0	0	0	0	4
47	5.9	Source Protection Zones	0	0	0	0	-
48	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
49 >	6.1 >	Water Network (OS MasterMap) >	0	1	8	-	-

50 >	6.2 >	Surface water features >	0	1	4	-	-
51 >	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
53	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
53	7.2	Historical Flood Events	0	0	0	-	-
53	7.3	Flood Defences	0	0	0	-	-
54	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	None (within 50m)				
55	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
56	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding >					
57 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
58 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	1	5
59	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
59	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
59	10.4	Special Protection Areas (SPA)	0	0	0	0	0
60	10.5	National Nature Reserves (NNR)	0	0	0	0	0
60	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
60	10.7	Designated Ancient Woodland	0	0	0	0	0
60	10.8	Biosphere Reserves	0	0	0	0	0
61	10.9	Forest Parks	0	0	0	0	0
61	10.10	Marine Conservation Zones	0	0	0	0	0
61	10.11	Green Belt	0	0	0	0	0
61	10.12	Proposed Ramsar sites	0	0	0	0	0

61	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
62	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
62	10.15	Nitrate Sensitive Areas	0	0	0	0	0
62 >	10.16 >	Nitrate Vulnerable Zones >	0	0	0	0	1
63 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
64 >	10.18 >	SSSI Units >	0	0	0	1	7
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
68	11.1	World Heritage Sites	0	0	0	-	-
69	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
69	11.3	National Parks	0	0	0	-	-
69	11.4	Listed Buildings	0	0	0	-	-
69	11.5	Conservation Areas	0	0	0	-	-
70	11.6	Scheduled Ancient Monuments	0	0	0	-	-
70 >	11.7 >	Registered Parks and Gardens >	0	1	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
71 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
72	12.2	Open Access Land	0	0	0	-	-
72	12.3	Tree Felling Licences	0	0	0	-	-
72	12.4	Environmental Stewardship Schemes	0	0	0	-	-
72	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
73 >	13.1 >	Priority Habitat Inventory >	0	4	8	-	-
74 >	13.2 >	Habitat Networks >	0	0	1	-	-
74	13.3	Open Mosaic Habitat	0	0	0	-	-
75	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
76 >	14.1 >	10k Availability >	Identified (within 500m)				
77 >	14.2 >	Artificial and made ground (10k) >	0	0	0	6	-
79 >	14.3 >	Superficial geology (10k) >	0	0	1	1	-

80	14.4	Landslip (10k)	0	0	0	0	-
81 >	14.5 >	Bedrock geology (10k) >	1	0	0	1	-
82 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	2	3	-
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	0	2	-
85	15.3	Artificial ground permeability (50k)	0	0	-	-	-
86 >	15.4 >	Superficial geology (50k) >	0	0	1	0	-
87	15.5	Superficial permeability (50k)	None (within 50m)				
87	15.6	Landslip (50k)	0	0	0	0	-
87	15.7	Landslip permeability (50k)	None (within 50m)				
88 >	15.8 >	Bedrock geology (50k) >	1	0	0	0	-
89 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
89 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	2	2	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
90	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
91 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
92 >	17.2 >	Running sands >	Negligible (within 50m)				
93 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
94 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
95 >	17.5 >	Landslides >	Very low (within 50m)				
96 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
98	18.1	BritPits	0	0	0	0	-
99 >	18.2 >	Surface ground workings >	0	0	6	-	-
99 >	18.3 >	Underground workings >	0	0	0	12	28
101	18.4	Underground mining extents	0	0	0	0	-
101 >	18.5 >	Historical Mineral Planning Areas >	0	0	0	1	-

101 >	18.6 >	Non-coal mining >	1	2	0	4	3
103	18.7	JPB mining areas	None (within 0m)				
103	18.8	The Coal Authority non-coal mining	0	0	0	0	-
103	18.9	Researched mining	0	0	0	0	-
103 >	18.10 >	Mining record office plans >	1	0	3	3	-
104 >	18.11 >	BGS mine plans >	1	0	0	0	-
104	18.12	Coal mining	None (within 0m)				
104	18.13	Brine areas	None (within 0m)				
105	18.14	Gypsum areas	None (within 0m)				
105 >	18.15 >	Tin mining >	Identified (within 0m)				
105	18.16	Clay mining	None (within 0m)				

Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
106	19.1	Natural cavities	0	0	0	0	-
107 >	19.2 >	Mining cavities >	0	0	1	3	4
107	19.3	Reported recent incidents	0	0	0	0	-
108	19.4	Historical incidents	0	0	0	0	-
108	19.5	National karst database	0	0	0	0	-

Page	Section	Radon >					
109 >	20.1 >	Radon >	Between 10% and 30% (within 0m)				

Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
111 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	0	-	-	-
111	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
111	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
112	22.1	Underground railways (London)	0	0	0	-	-
112	22.2	Underground railways (Non-London)	0	0	0	-	-
112	22.3	Railway tunnels	0	0	0	-	-
112	22.4	Historical railway and tunnel features	0	0	0	-	-
112	22.5	Royal Mail tunnels	0	0	0	-	-

113	22.6	Historical railways	0	0	0	-	-
113	22.7	Railways	0	0	0	-	-
113	22.8	Crossrail 1	0	0	0	0	-
113	22.9	Crossrail 2	0	0	0	0	-
113	22.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 06/08/2022

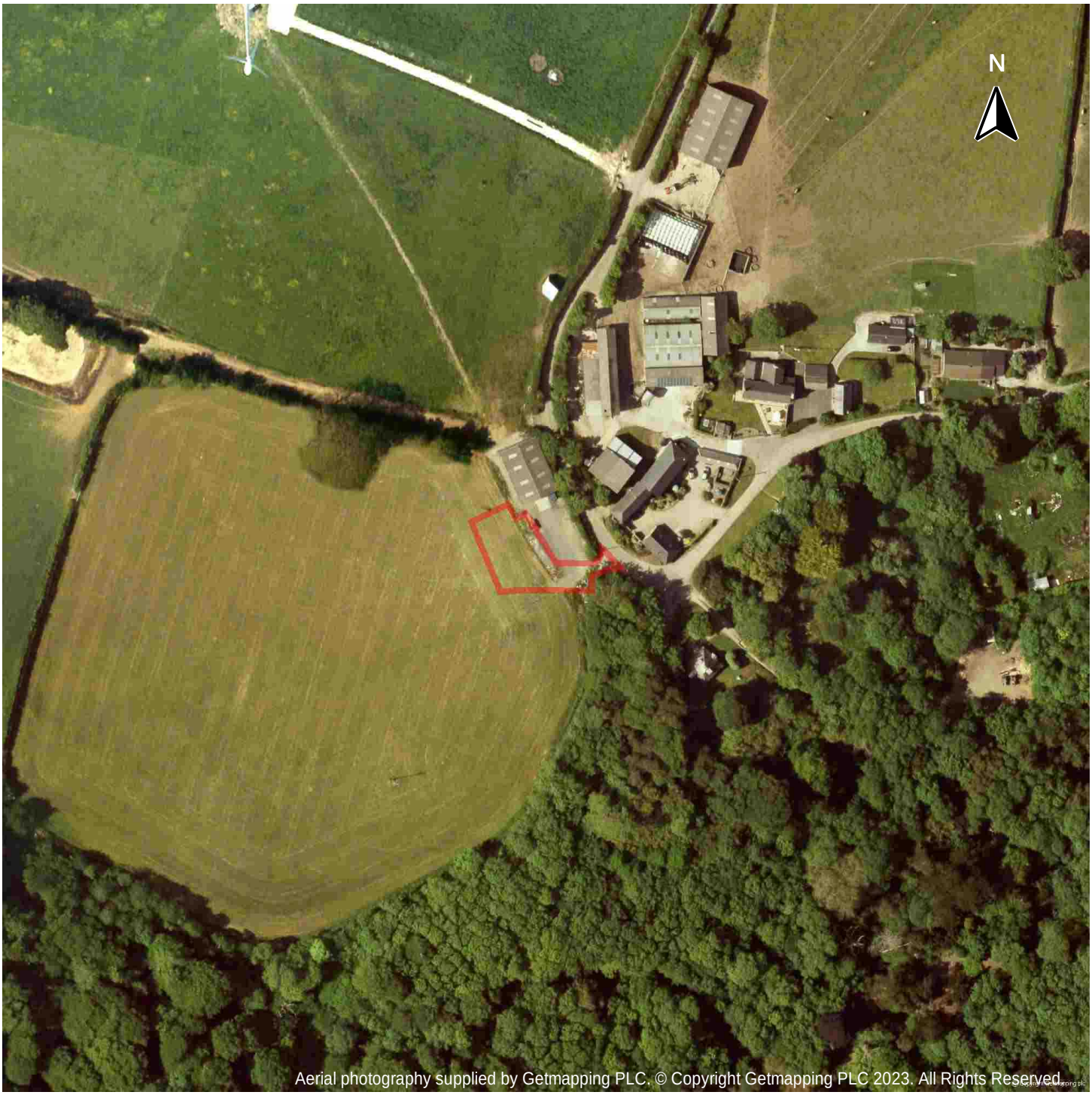
Site Area: 0.06ha

Recent site history - 2019 aerial photograph

Capture Date: 22/06/2019

Site Area: 0.06ha

Recent site history - 2013 aerial photograph



Capture Date: 08/06/2013

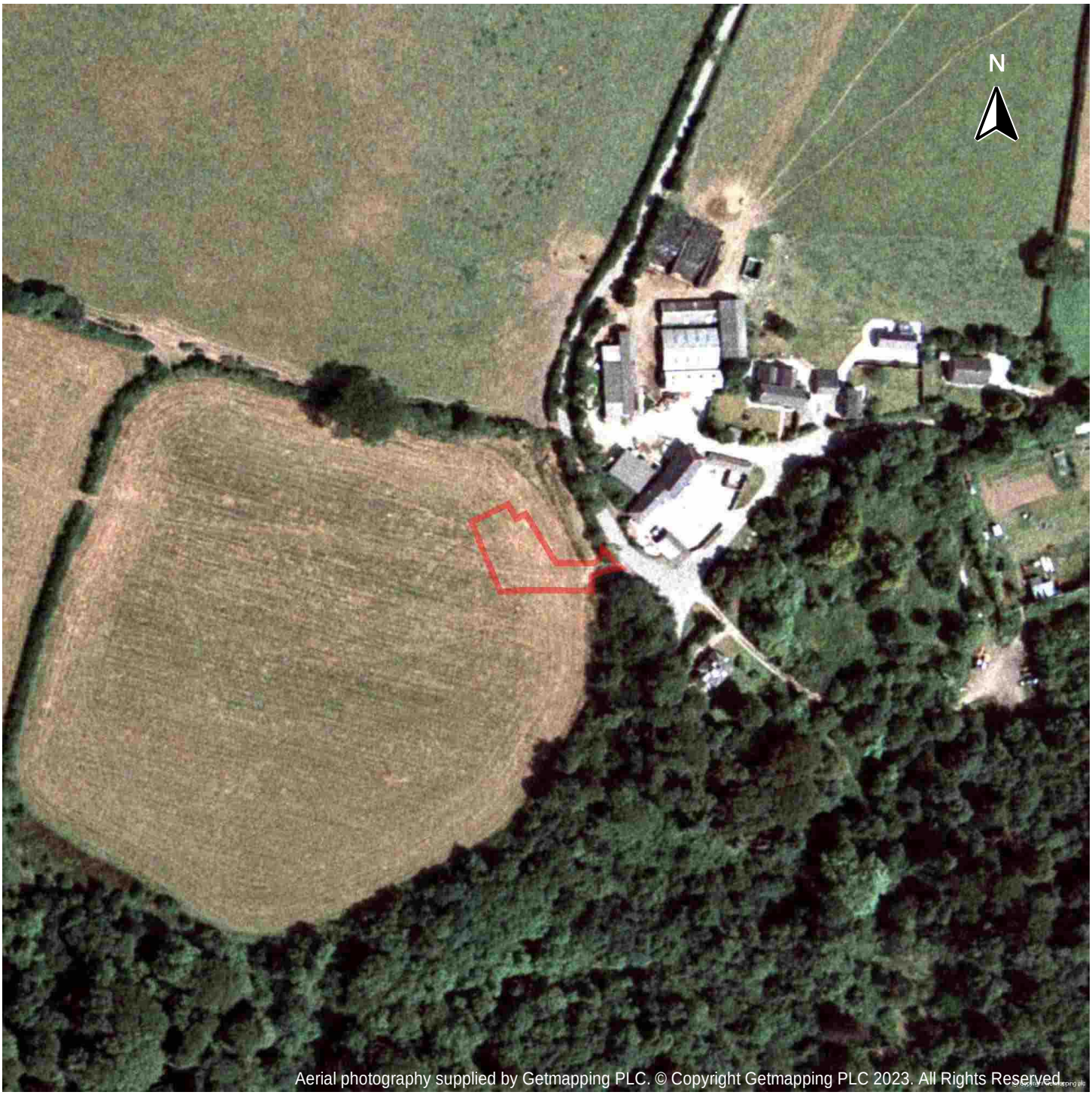
Site Area: 0.06ha

Recent site history - 2005 aerial photograph

Capture Date: 15/10/2005

Site Area: 0.06ha

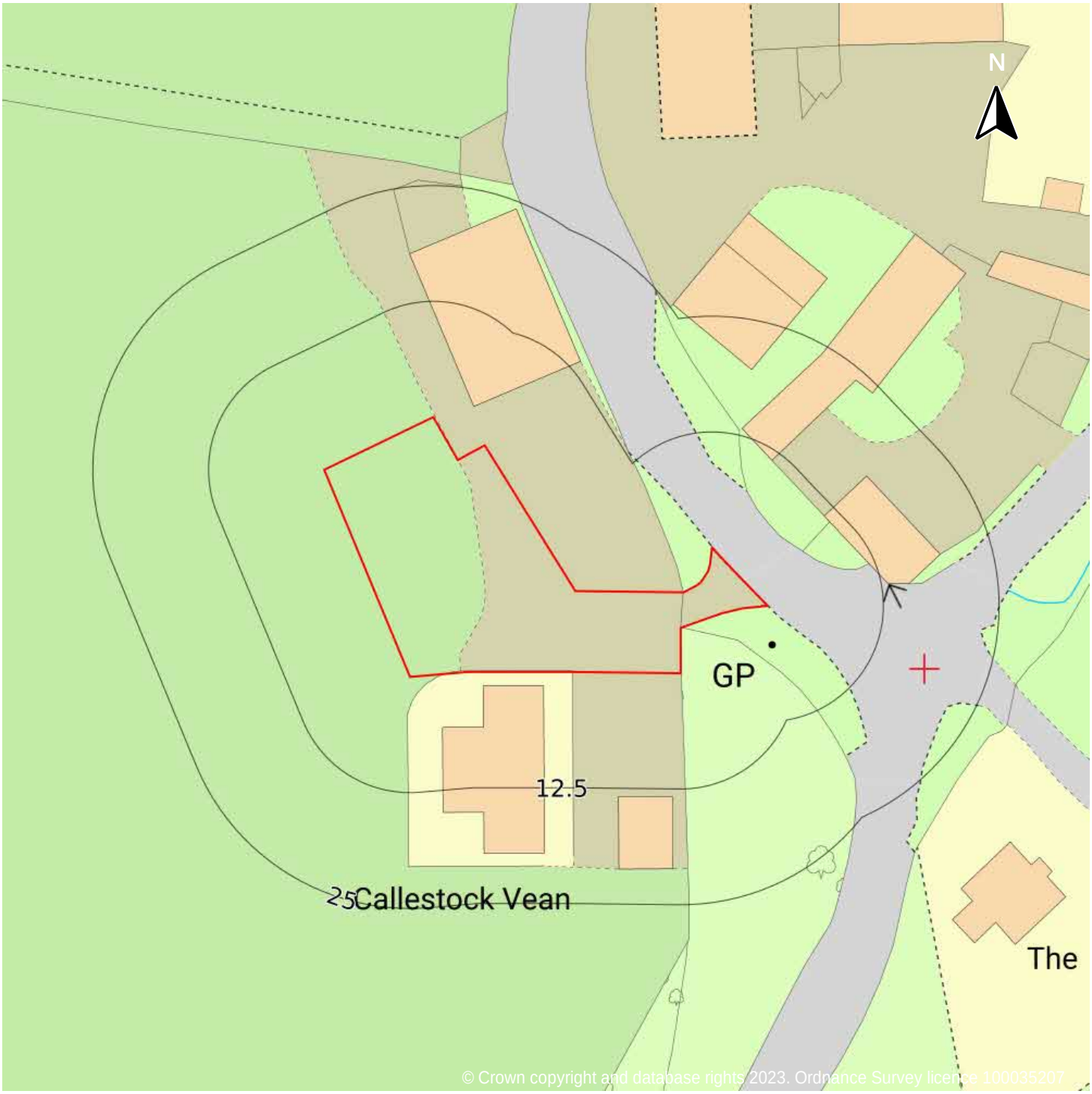
Recent site history - 1999 aerial photograph



Capture Date: 25/07/1999

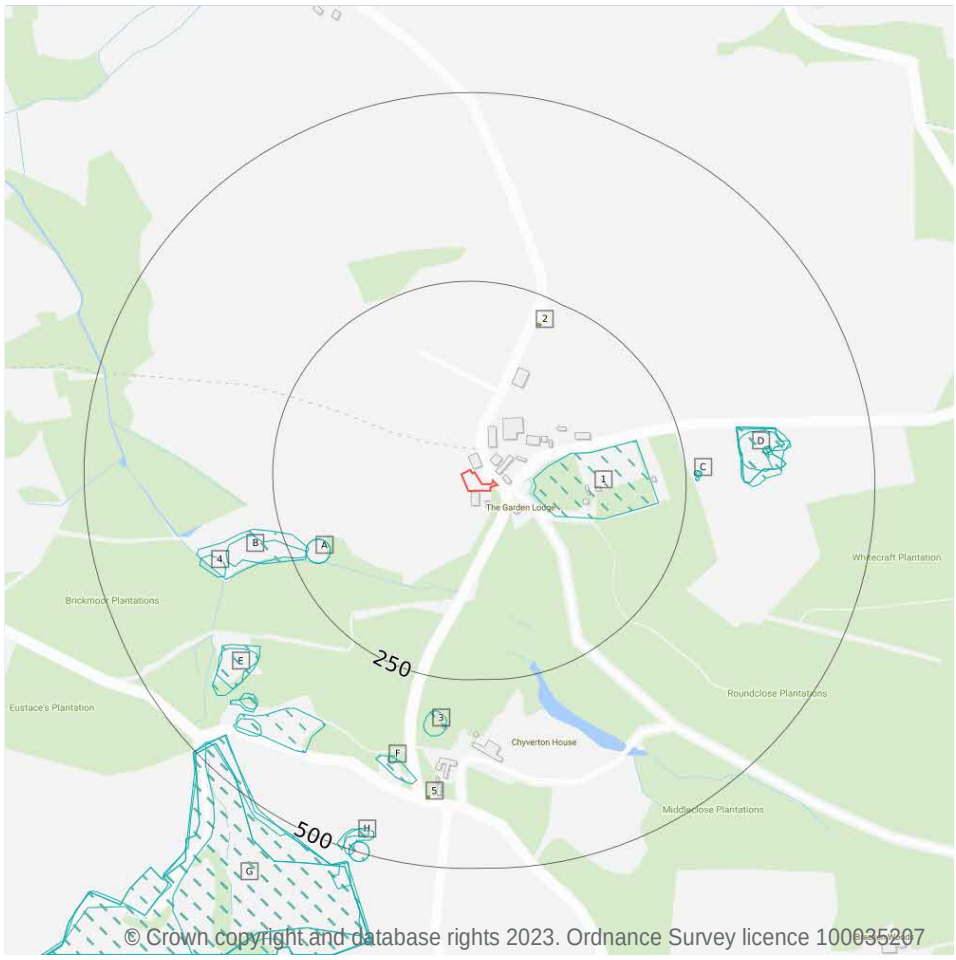
Site Area: 0.06ha

OS MasterMap site plan



Site Area: 0.06ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

1.1 Historical industrial land uses

Records within 500m	34

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

Features are displayed on the Past land use map on page 15 >

ID	Location	Land use	Dates present	Group ID
1	48m E	Nurseries	1974	31876

ID	Location	Land use	Dates present	Group ID
A	198m SW	Unspecified Tank	1879	44972
A	198m SW	Unspecified Tank	1906	55543
B	224m W	Refuse Heap	1958	21880
B	229m W	Unspecified Heap	1879	35386
C	261m E	Unspecified Old Shaft	1906 - 1958	55071
C	262m E	Unspecified Shaft	1879	27048
C	264m E	Unspecified Disused Shaft	1974	30695
3	294m S	Unspecified Heap	1958 - 1974	54249
D	323m E	Refuse Heap	1879	58543
D	323m E	Unspecified Disused Tip	1974	37576
D	323m E	Unspecified Disused Tip	1993	50906
D	325m E	Refuse Heap	1958	59466
4	336m W	Unspecified Heap	1879	35385
E	344m SW	Refuse Heap	1958	21881
E	354m SW	Unspecified Heap	1879	35384
D	355m E	Unspecified Disused Shaft	1974	41101
D	355m E	Unspecified Disused Shaft	1993	50827
D	359m E	Unspecified Shaft	1906 - 1958	42079
E	361m SW	Refuse Heap	1958	21879
F	364m S	Unspecified Disused Shaft	1974	30697
F	366m S	Refuse Heap	1958	21877
E	392m SW	Unspecified Pit	1906 - 1958	58191
E	395m SW	Unspecified Quarry	1879	19858
E	415m SW	Unspecified Heap	1879	35383
G	455m SW	Refuse Heap	1958	21882
G	457m SW	Unspecified Disused Mine	1974	22628
H	468m S	Refuse Heap	1958	21878
H	470m S	Unspecified Ground Workings	1974	20795

ID	Location	Land use	Dates present	Group ID
G	473m SW	Lead and Blende Mine	1879	48081
G	473m SW	Lead and Blende Mine	1906	53257
G	476m SW	Unspecified Disused Tip	1974	22830
H	486m S	Unspecified Tank	1906	42436
H	486m S	Unspecified Tank	1879	50226

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	2

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 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
2	211m N	Unspecified Tank	1972	3861
5	407m S	Unspecified Tank	1972	3863

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	0

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 un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

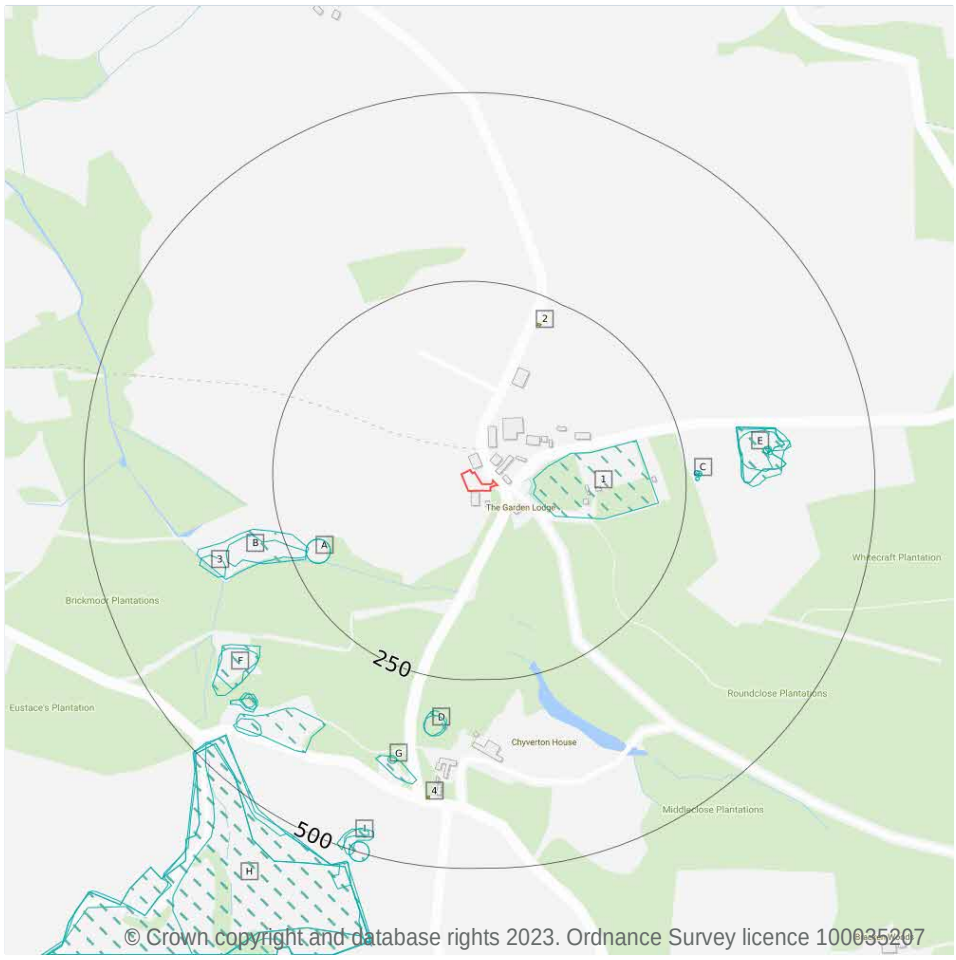
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

2.1 Historical industrial land uses

Records within 500m	38

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 19 >

ID	Location	Land Use	Date	Group ID
1	48m E	Nurseries	1974	31876
A	198m SW	Unspecified Tank	1879	44972
A	198m SW	Unspecified Tank	1906	55543

ID	Location	Land Use	Date	Group ID
B	224m W	Refuse Heap	1958	21880
B	229m W	Unspecified Heap	1879	35386
C	261m E	Unspecified Old Shaft	1906	55071
C	262m E	Unspecified Shaft	1879	27048
C	264m E	Unspecified Disused Shaft	1974	30695
C	265m E	Unspecified Old Shaft	1958	55071
D	294m S	Unspecified Heap	1958	54249
D	301m S	Unspecified Heap	1974	54249
E	323m E	Refuse Heap	1879	58543
E	323m E	Unspecified Disused Tip	1993	50906
E	323m E	Unspecified Disused Tip	1974	37576
E	325m E	Refuse Heap	1958	59466
3	336m W	Unspecified Heap	1879	35385
F	344m SW	Refuse Heap	1958	21881
F	354m SW	Unspecified Heap	1879	35384
E	355m E	Unspecified Disused Shaft	1993	50827
E	355m E	Unspecified Disused Shaft	1974	41101
E	359m E	Unspecified Shaft	1906	42079
E	360m E	Unspecified Shaft	1958	42079
F	361m SW	Refuse Heap	1958	21879
G	364m S	Unspecified Disused Shaft	1974	30697
G	366m S	Refuse Heap	1958	21877
F	392m SW	Unspecified Pit	1958	58191
F	395m SW	Unspecified Quarry	1879	19858
F	395m SW	Unspecified Pit	1906	58191
F	415m SW	Unspecified Heap	1879	35383
H	455m SW	Refuse Heap	1958	21882
H	457m SW	Unspecified Disused Mine	1974	22628

ID	Location	Land Use	Date	Group ID
I	468m S	Refuse Heap	1958	21878
I	470m S	Unspecified Ground Workings	1974	20795
H	473m SW	Lead and Blende Mine	1879	48081
H	473m SW	Lead and Blende Mine	1906	53257
H	476m SW	Unspecified Disused Tip	1974	22830
I	486m S	Unspecified Tank	1879	50226
I	486m S	Unspecified Tank	1906	42436

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	2

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 19 >

ID	Location	Land Use	Date	Group ID
2	211m N	Unspecified Tank	1972	3861
4	407m S	Unspecified Tank	1972	3863

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	0

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'.

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

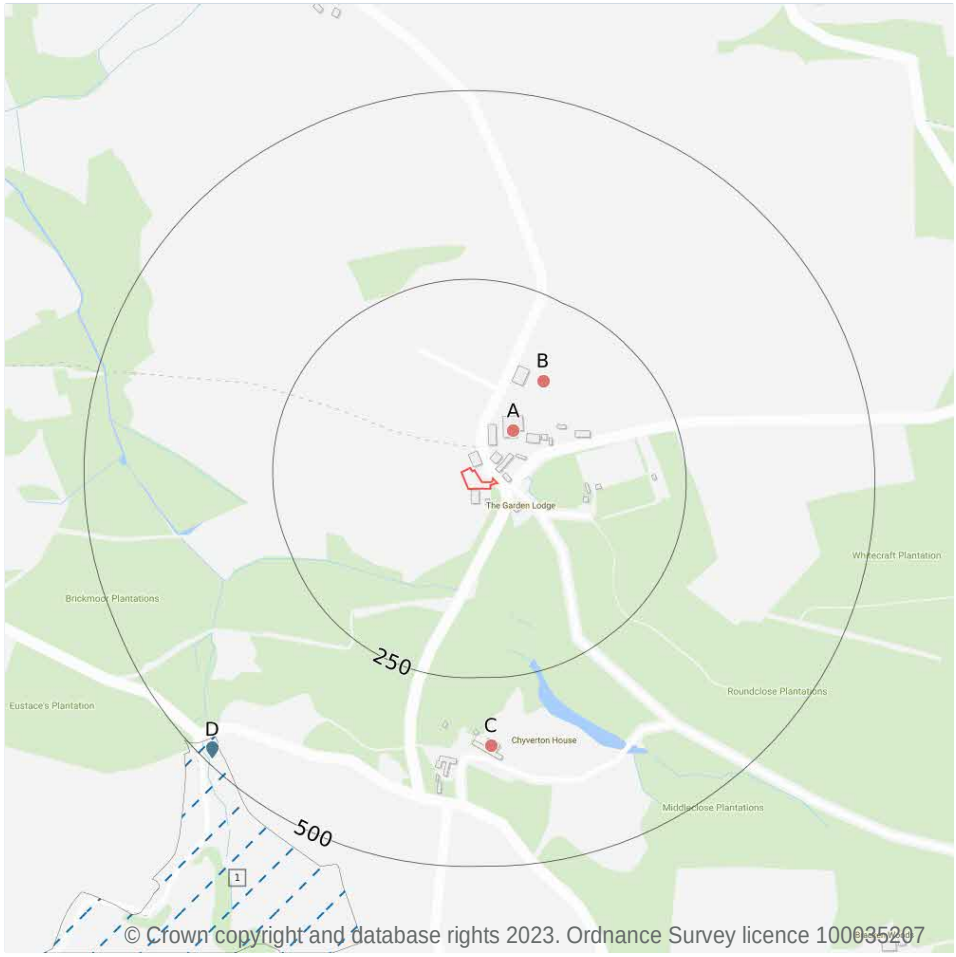
2.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Active or recent landfill

Licensed waste sites

Waste exemptions

3.1 Active or recent landfill

Records within 500m	1

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

Features are displayed on the Waste and landfill map on page 23 >

ID	Location	Details	
1	468m SW	Operator: E Hooper & Sons (Fraddon) Ltd Site Address: Land/ Premises At, Zelah, Truro, Cornwall, TR4 9HD	WML Number: 20506 EPR Reference: HOO007 Landfill type: A06: Landfill taking other wastes Status: Closure IPPC Reference: - EPR Number: EA/EPR/MP3096HY/A001

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	3

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

Features are displayed on the Waste and landfill map on page 23 >

ID	Location	Details		
D	484m SW	Site Name: West Chyverton Mine Site Address: Land/ Premises At, Zelah, Truro, Cornwall, TR4 9HD Correspondence Address: -	Type of Site: Landfill taking other wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HOO007 EPR reference: MP3096HY/A001 Operator: E Hooper & Sons (fraddon) Ltd Waste Management licence No: 20506 Annual Tonnage: 24999	Issue Date: 17/07/1990 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
D	484m SW	Site Name: West Chyverton Mine Site Address: Land/ Premises At, Zelah, Truro, Cornwall, TR4 9HD Correspondence Address: -	Type of Site: Landfill taking other wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HOO007 EPR reference: EA/EPR/MP3096HY/A001 Operator: E Hooper & Sons (Fraddon) Ltd Waste Management licence No: 20506 Annual Tonnage: 24999	Issue Date: 17/07/1990 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
D	484m SW	Site Name: West Chyverton Mine Site Address: E Hooper & Sons (Fraddon) Limited, Land/ Premises At, Zelah, Truro, Cornwall, TR4 9HD Correspondence Address: -	Type of Site: Landfill taking other wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: 631441 EPR reference: EA/EPR/MP3096HY Operator: E Hooper & Sons (Fraddon) Limited Waste Management licence No: 20506 Annual Tonnage: 24999	Issue Date: 17/07/1990 Effective Date: 17/07/1990 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: 17/07/1990 Status: Closure

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

3.7 Waste exemptions

Records within 500m	36

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 23 >

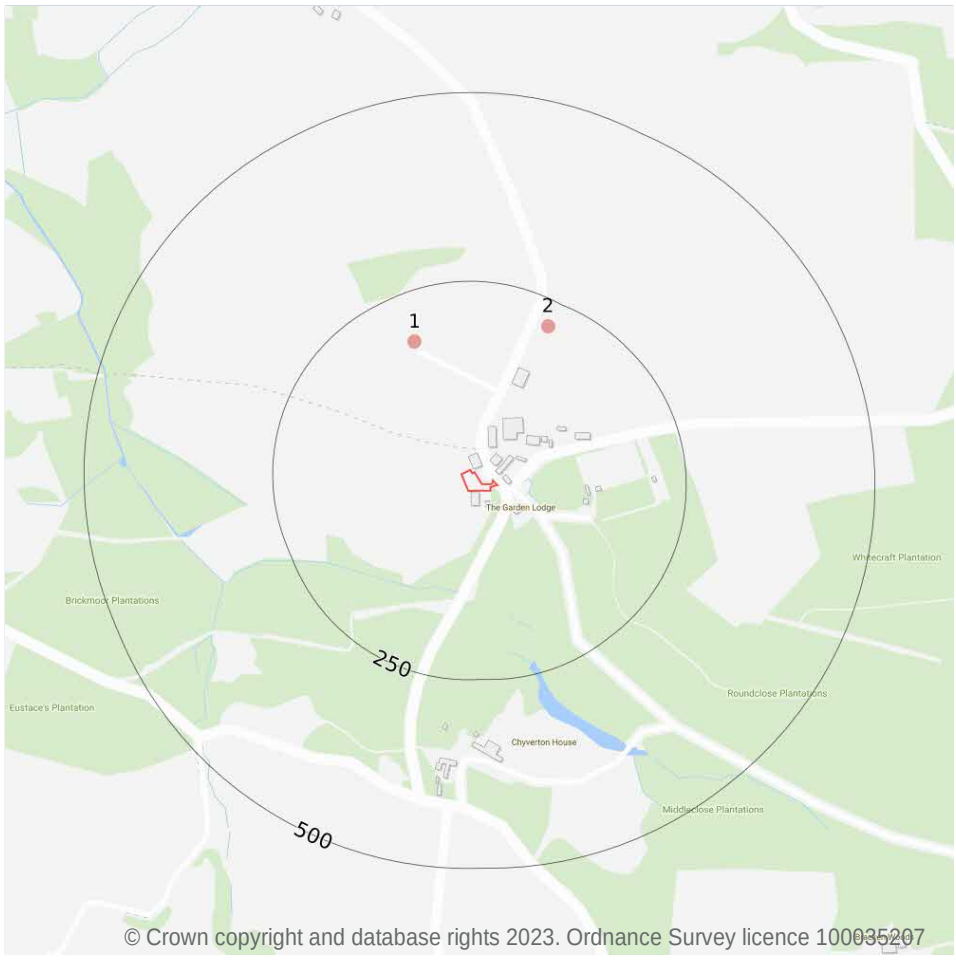
ID	Location	Site	Reference	Category	Sub-Category	Description
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Using waste exemption	On a farm	Use of waste for a specified purpose
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Disposing of waste exemption	On a farm	Burning waste in the open
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Treating waste exemption	On a farm	Recovery of scrap metal
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Using waste exemption	On a farm	Use of mulch
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX186054	Using waste exemption	On a farm	Use of waste in construction
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Using waste exemption	On a farm	Use of mulch
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Disposing of waste exemption	On a farm	Burning waste in the open
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Treating waste exemption	On a farm	Recovery of scrap metal
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Using waste exemption	On a farm	Use of waste in construction
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX028683	Using waste exemption	On a farm	Use of waste for a specified purpose

ID	Location	Site	Reference	Category	Sub-Category	Description
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Using waste exemption	On a farm	Spreading of plant matter to confer benefit
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Disposing of waste exemption	On a farm	Burning waste in the open
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Treating waste exemption	On a farm	Recovery of scrap metal
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Using waste exemption	On a farm	Use of mulch
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Using waste exemption	On a farm	Use of waste for a specified purpose
A	68m NE	LITTLE CALLESTOCK FARM, ZELAH, TRURO, TR4 9HB	WEX321221	Using waste exemption	On a farm	Use of waste in construction
B	144m NE	Little Callestock Farm TRURO Cornwall TR4 9HB	EPR/BH0771CC/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
B	144m NE	Little Callestock Farm TRURO Cornwall TR4 9HB	EPR/BH0771CC/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
B	144m NE	Little Callestock Farm TRURO Cornwall TR4 9HB	EPR/BH0771CC/A001	Treating waste exemption	Agricultural Waste Only	Recovery of scrap metal
B	144m NE	Little Callestock Farm TRURO Cornwall TR4 9HB	EPR/BH0771CC/A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
B	144m NE	Little Callestock Farm TRURO Cornwall TR4 9HB	EPR/BH0771CC/A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit
B	144m NE	Little Callestock Farm TRURO Cornwall TR4 9HB	EPR/BH0771CC/A001	Using waste exemption	Agricultural Waste Only	Spreading of plant matter to confer benefit
B	144m NE	Little Callestock Farm TRURO Cornwall TR4 9HB	EPR/BH0771CC/A001	Using waste exemption	Agricultural Waste Only	Use of waste for a specified purpose

ID	Location	Site	Reference	Category	Sub-Category	Description
C	341m S	Chyverton TRURO Cornwall TR4 9HD	EPR/JH0273Z Z/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	341m S	Chyverton TRURO Cornwall TR4 9HD	EPR/JH0273Z Z/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
C	341m S	Chyverton TRURO Cornwall TR4 9HD	EPR/JH0273Z Z/A001	Storing waste exemption	Agricultural Waste Only	Storage of waste in secure containers
C	341m S	Chyverton TRURO Cornwall TR4 9HD	EPR/JH0273Z Z/A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	341m S	Chyverton TRURO Cornwall TR4 9HD	EPR/JH0273Z Z/A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit

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

4.1 Recent industrial land uses

Records within 250m	2

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on page 29 >

ID	Location	Company	Address	Activity	Category
1	185m NW	Wind Turbine	Cornwall, TR4	Energy Production	Industrial Features
2	216m NE	Tank	Cornwall, TR4	Tanks (Generic)	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	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	0

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

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	0

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

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

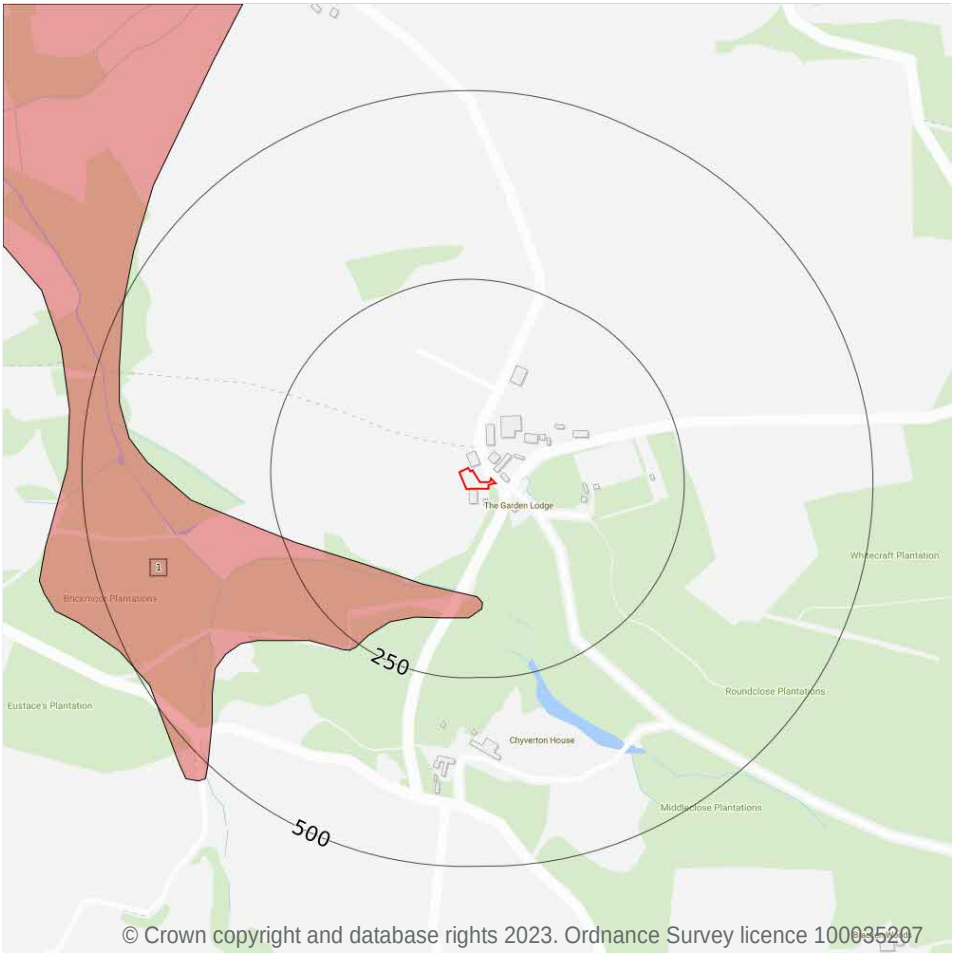
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	1

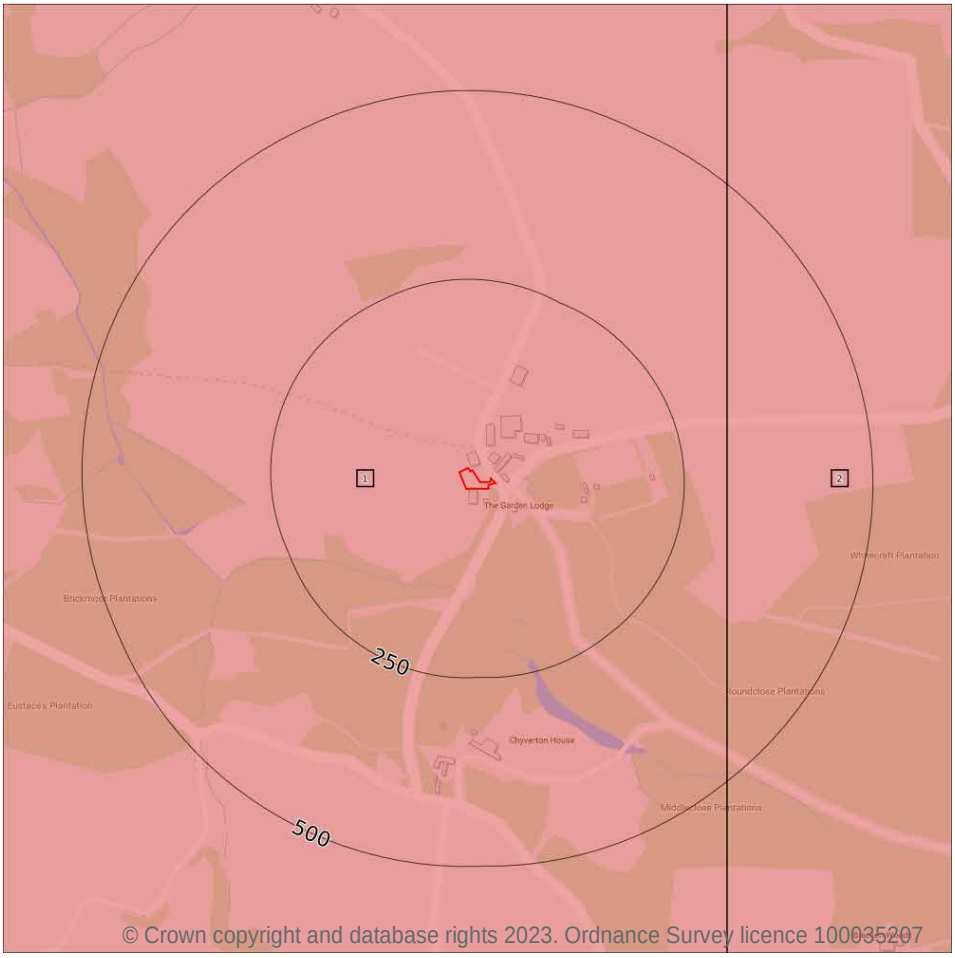
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on page 34 >

ID	Location	Designation	Description
1	136m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

5.2 Bedrock aquifer

Records within 500m	2

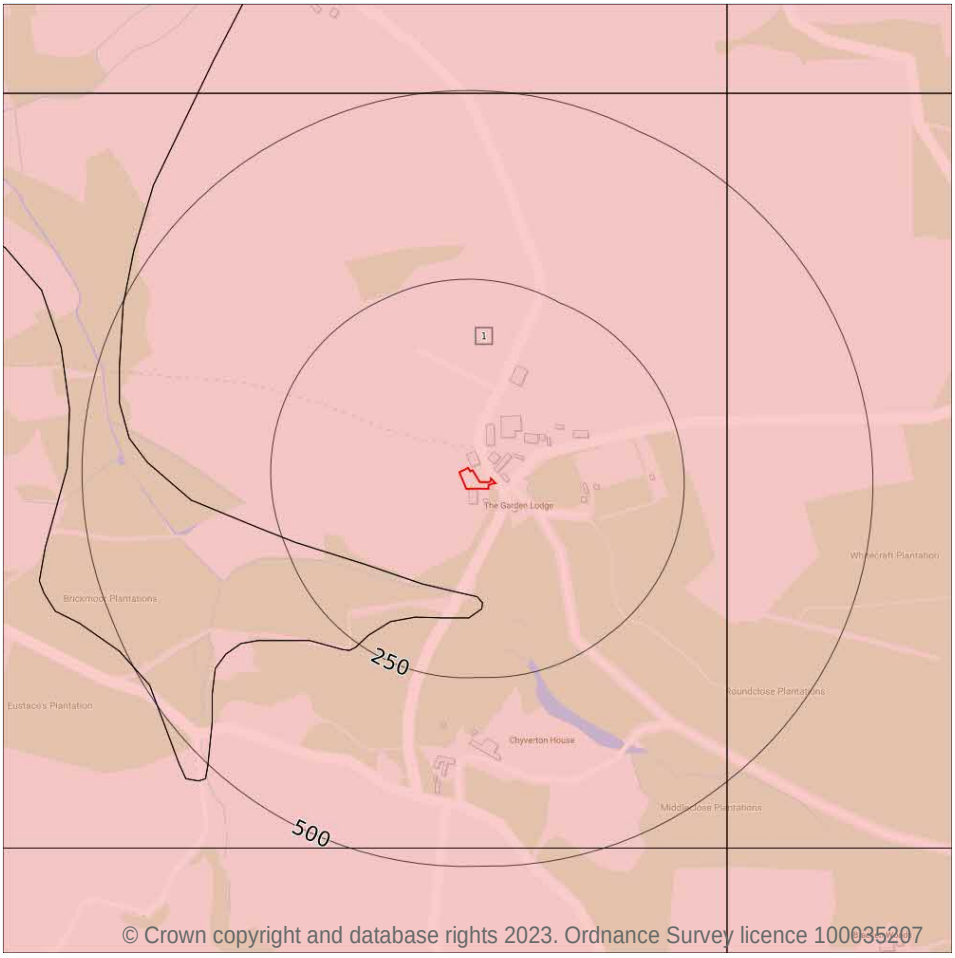
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on page 35 >

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	307m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

- Principal superficial aquifer, high vulnerability
- Secondary superficial aquifer, high vulnerability
- Principal superficial aquifer, medium vulnerability
- Secondary superficial aquifer, medium vulr
- Principal superficial aquifer, low vulnerability
- Secondary superficial aquifer, low vulnerability

Bedrock vulnerability

- Principal bedrock aquifer, high vulnerability
- Secondary bedrock aquifer, high vulnerability
- Principal bedrock aquifer, medium vulnerability
- Secondary bedrock aquifer, medium vulnerability
- Principal bedrock aquifer, low vulnerability
- Secondary bedrock aquifer, low vulnerability

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	1

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

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

Features are displayed on the Groundwater vulnerability map on page 37 >

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: High Aquifer type: Secondary 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	0

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

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

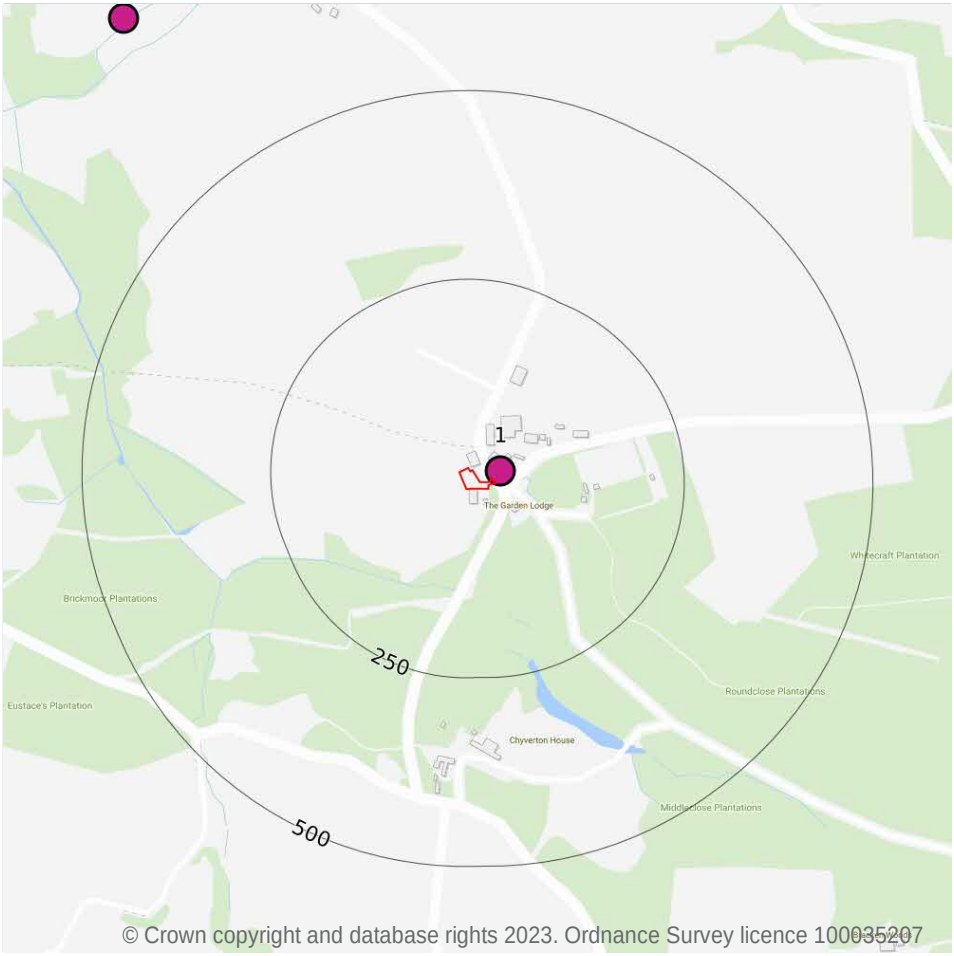
5.5 Groundwater vulnerability- local information

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
- 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	29

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 39 >

ID	Location	Details	
1	16m E	Status: Historical Licence No: 15/49/026/G/084 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: LITTLE CALLESTICK FARM - WELL A Data Type: Point Name: Waters Easting: 179700 Northing: 51500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	706m E	Status: Historical Licence No: 15/48/021/G/175 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: BOREHOLE AT ENGELLY Data Type: Point Name: Bennetts Easting: 180400 Northing: 51500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1971 Version End Date: -
-	739m E	Status: Historical Licence No: 15/49/026/G/083 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "ROSEDALE FARM, COST-IS-LOST - BOREHOLE A" Data Type: Point Name: Bennetts Easting: 180400 Northing: 51700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1971 Version End Date: -
-	739m E	Status: Historical Licence No: 15/49/026/G/083 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: ROSEDALE FARM, COST-IS-LOST - BOREHOLE A Data Type: Point Name: Bennetts Easting: 180400 Northing: 51700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1971 Version End Date: -
3	748m NW	Status: Historical Licence No: 15/49/026/G/171 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: POLGODA FARM - WELL A Data Type: Point Name: Charles Easting: 179200 Northing: 52100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/10/1976 Expiry Date: - Issue No: 100 Version Start Date: 08/12/1978 Version End Date: -

ID	Location	Details	
-	815m E	Status: Historical Licence No: 15/48/021/G/176 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: WELL AT COST-IS-LOST Data Type: Point Name: Arthur Easting: 180500 Northing: 51600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	953m NW	Status: Historical Licence No: 15/49/026/G/129 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: LITTLE POLGODA FARM - WELL A Data Type: Point Name: White Easting: 179000 Northing: 52200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	995m SE	Status: Historical Licence No: 15/49/026/G/033 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: ST. FREDA FARM - BOREHOLE A Data Type: Point Name: Davies Easting: 180500 Northing: 50900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 31/12/1965 Version End Date: -
-	1013m E	Status: Historical Licence No: 15/48/021/G/080 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "BOWLING GREEN FARM, ZELAH - WELL" Data Type: Point Name: Arthur Bros Easting: 180700 Northing: 51600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1013m E	Status: Historical Licence No: 15/48/021/G/080 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: BOWLING GREEN FARM, ZELAH - WELL Data Type: Point Name: Arthur Bros Easting: 180700 Northing: 51600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -

ID	Location	Details	
-	1043m E	Status: Historical Licence No: 15/48/021/G/178 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "ROSEMULLION, ST ALLEN - BOREHOLE" Data Type: Point Name: Clarke Easting: 180670 Northing: 51850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/12/1971 Expiry Date: - Issue No: 101 Version Start Date: 11/10/2000 Version End Date: -
-	1043m E	Status: Historical Licence No: 15/48/021/G/178 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: ROSEMULLION, ST ALLEN - BOREHOLE Data Type: Point Name: Clarke Easting: 180670 Northing: 51850	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/12/1971 Expiry Date: - Issue No: 101 Version Start Date: 11/10/2000 Version End Date: -
-	1147m NE	Status: Historical Licence No: 15/49/026/G/116 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: ENGELLY FARM - WELL A Data Type: Point Name: Bennetts Easting: 180500 Northing: 52300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1252m S	Status: Historical Licence No: 15/49/026/G/216 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: LOWER VENTONGIMPS Data Type: Point Name: Carveth Easting: 179280 Northing: 50280	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 19/09/2000 Expiry Date: - Issue No: 101 Version Start Date: 18/10/2000 Version End Date: -
-	1306m NW	Status: Historical Licence No: 15/49/026/G/079 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: HELENA FARM - BOREHOLE A Data Type: Point Name: Grigg Easting: 178700 Northing: 52400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 24/03/2005 Version End Date: -

ID	Location	Details	
-	1342m S	Status: Historical Licence No: 15/48/021/G/137 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "NANCARROW FARM, MARAZANVOSE - WELL" Data Type: Point Name: Mewton Easting: 180100 Northing: 50200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1342m S	Status: Historical Licence No: 15/48/021/G/137 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: NANCARROW FARM, MARAZANVOSE - WELL Data Type: Point Name: Mewton Easting: 180100 Northing: 50200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1500m NW	Status: Historical Licence No: 15/49/026/G/078 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: HIGHER POLGODA FARM - ADIT A Data Type: Point Name: Charles Easting: 178900 Northing: 52800	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 29/11/1988 Version End Date: -
-	1697m NW	Status: Historical Licence No: 15/49/026/G/166 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "CARNKIEF FARM, PERRANZABULOE - SPRING A" Data Type: Point Name: Sawmy Easting: 178100 Northing: 52200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 26/09/1975 Expiry Date: - Issue No: 100 Version Start Date: 26/09/1975 Version End Date: -
-	1697m NW	Status: Historical Licence No: 15/49/026/G/166 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: CARNKIEF FARM, PERRANZABULOE - SPRING A Data Type: Point Name: Sawmy Easting: 178100 Northing: 52200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 26/09/1975 Expiry Date: - Issue No: 100 Version Start Date: 26/09/1975 Version End Date: -

ID	Location	Details	
-	1741m NW	Status: Historical Licence No: 15/49/026/G/207 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - Fresh Point: "CARNKIEF FARMHOUSE, PERRANZABULOE - BOREHOLE" Data Type: Point Name: Douglas Easting: 178100 Northing: 52300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 25/08/1993 Expiry Date: - Issue No: 100 Version Start Date: 03/09/1993 Version End Date: -
-	1741m NW	Status: Historical Licence No: 15/49/026/G/207 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: CARNKIEF FARMHOUSE, PERRANZABULOE - BOREHOLE Data Type: Point Name: Douglas Easting: 178100 Northing: 52300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 25/08/1993 Expiry Date: - Issue No: 100 Version Start Date: 03/09/1993 Version End Date: -
-	1759m NE	Status: Historical Licence No: 15/48/021/G/045 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "POLSTAIN FARM, ZELAH - WELL" Data Type: Point Name: Brewer Easting: 181300 Northing: 52200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 31/12/1965 Version End Date: -
-	1759m NE	Status: Historical Licence No: 15/48/021/G/045 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: POLSTAIN FARM, ZELAH - WELL Data Type: Point Name: Brewer Easting: 181300 Northing: 52200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 31/12/1965 Version End Date: -

ID	Location	Details	
-	1796m N	Status: Historical Licence No: 15/49/026/G/137 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: LITTLE WATER FARM - WELL A Data Type: Point Name: Trenerry Easting: 179700 Northing: 53300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/03/1966 Version End Date: -
-	1913m N	Status: Active Licence No: 15/49/026/G/209 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: SPRINGFIELD CARAVAN PARK, PERRANZABULOE - BOREHOLE Data Type: Point Name: Howard & Thomas Easting: 179400 Northing: 53400	Annual Volume (m^3): 5155 Max Daily Volume (m^3): 49 Original Application No: 12309 Original Start Date: 18/01/1994 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1913m N	Status: Historical Licence No: 15/49/026/G/209 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - Fresh Point: "SPRINGFIELD CARAVAN PARK, PERRANZABULOE - BOREHOLE" Data Type: Point Name: Howard & Thomas Easting: 179400 Northing: 53400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/01/1994 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1994 Version End Date: -
-	1986m S	Status: Historical Licence No: 15/48/021/G/174 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: "LOWER TRESAWSEN FARM, PERRANZABULOE - WELL" Data Type: Point Name: Graham Easting: 179000 Northing: 49600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1988 Version End Date: -

ID	Location	Details	
-	1986m S	Status: Historical Licence No: 15/48/021/G/174 Details: General Farming & Domestic Direct Source: Ground Water - Fresh Point: LOWER TRESAWSEN FARM, PERRANZABULOE - WELL Data Type: Point Name: Graham Easting: 179000 Northing: 49600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1988 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0

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

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

5.8 Potable abstractions

Records within 2000m	4

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 39 >

ID	Location	Details	
-	1741m NW	Status: Historical Licence No: 15/49/026/G/207 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - Fresh Point: "CARNKIEF FARMHOUSE, PERRANZABULOE - BOREHOLE" Data Type: Point Name: Douglas Easting: 178100 Northing: 52300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 25/08/1993 Expiry Date: - Issue No: 100 Version Start Date: 03/09/1993 Version End Date: -

ID	Location	Details	
-	1741m NW	Status: Historical Licence No: 15/49/026/G/207 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: CARNKIEF FARMHOUSE, PERRANZABULOE - BOREHOLE Data Type: Point Name: Douglas Easting: 178100 Northing: 52300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 25/08/1993 Expiry Date: - Issue No: 100 Version Start Date: 03/09/1993 Version End Date: -
-	1913m N	Status: Active Licence No: 15/49/026/G/209 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - Fresh Point: SPRINGFIELD CARAVAN PARK, PERRANZABULOE - BOREHOLE Data Type: Point Name: Howard & Thomas Easting: 179400 Northing: 53400	Annual Volume (m^3): 5155 Max Daily Volume (m^3): 49 Original Application No: 12309 Original Start Date: 18/01/1994 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1913m N	Status: Historical Licence No: 15/49/026/G/209 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - Fresh Point: "SPRINGFIELD CARAVAN PARK, PERRANZABULOE - BOREHOLE" Data Type: Point Name: Howard & Thomas Easting: 179400 Northing: 53400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 18/01/1994 Expiry Date: - Issue No: 100 Version Start Date: 18/01/1994 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	0

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

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

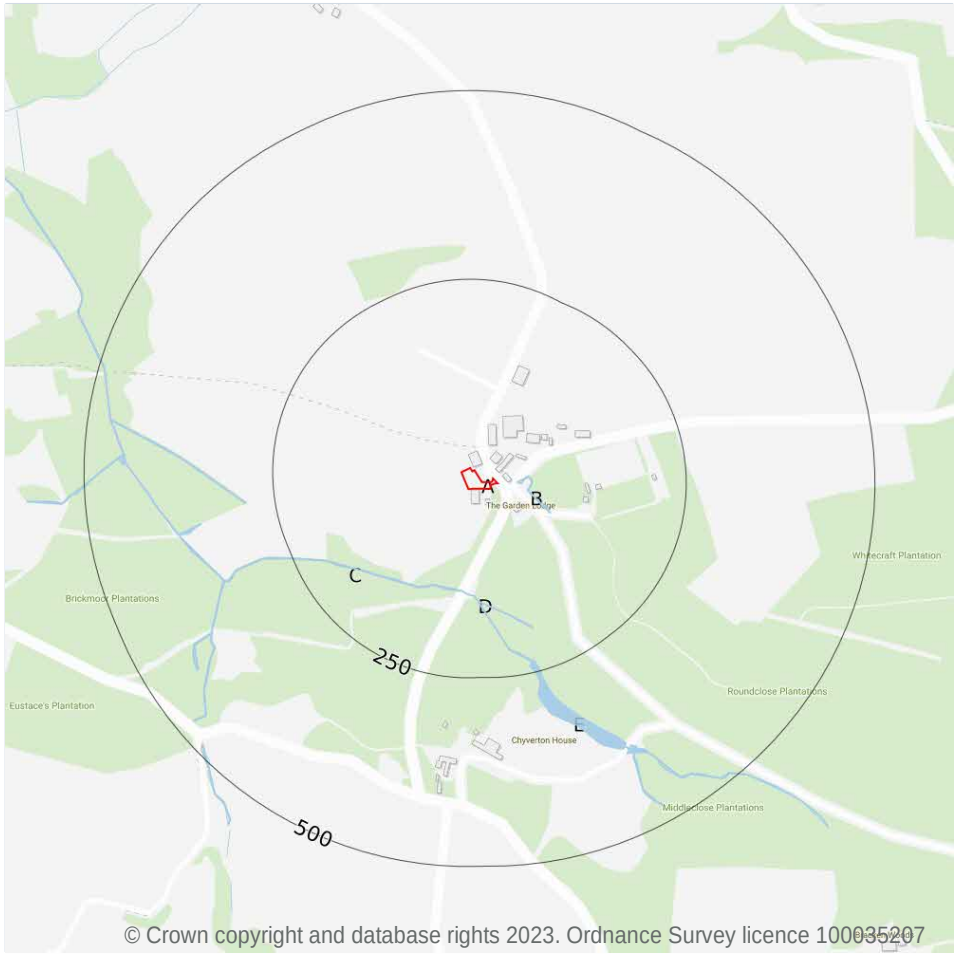
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology



Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	9

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 49 >

ID	Location	Type of water feature	Ground level	Permanence	Name
B	26m 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
C	135m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	141m S	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
D	148m S	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
D	148m S	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
D	170m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	214m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	233m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	235m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	5

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 49 >

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 49 >

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Bolingey Stream**	**GB108049000700**	**Hayle Red River and Northern Streams**	**Cornwall West and the Fal**

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 49 >

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1498m W	River	Bolingey Stream	GB108049000700 ↗	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 49 >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	West Cornwall	GB40802G800100 ↗	Poor	Poor	Good	2019

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

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding

8.1 Surface water flooding

Highest risk on site	Negligible
Highest risk within 50m	Negligible

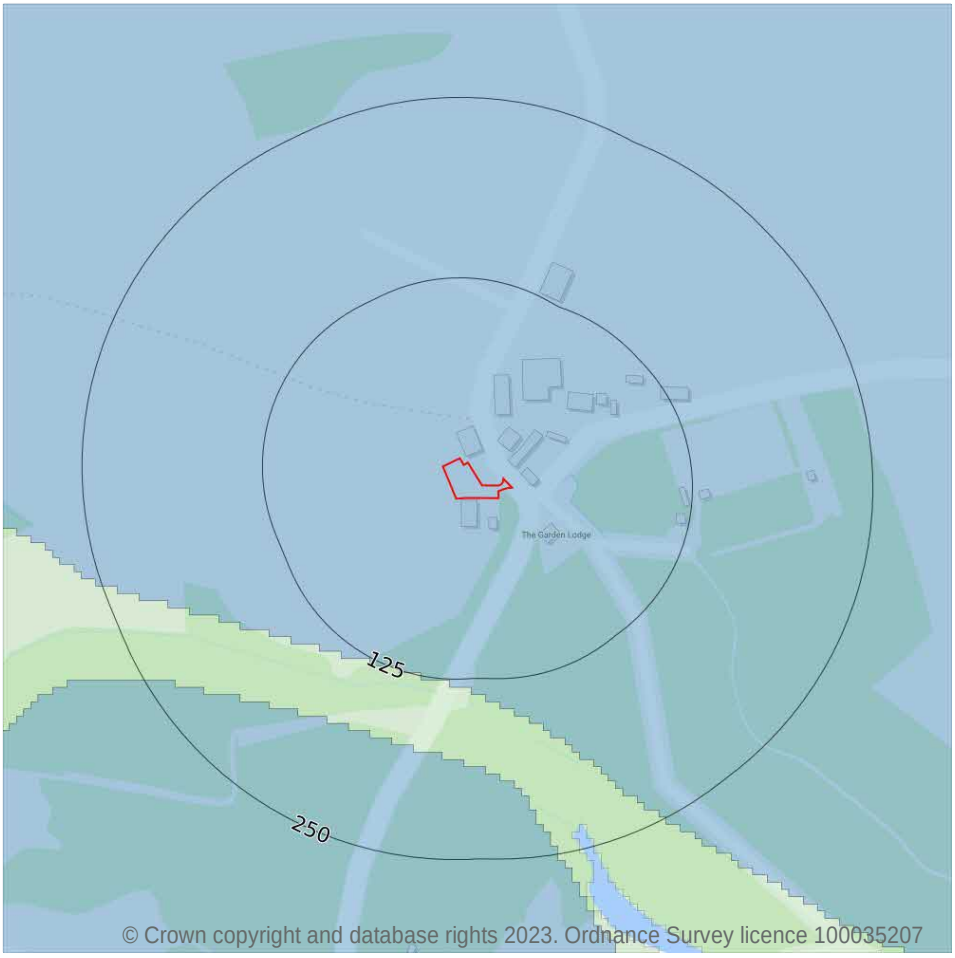
Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year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

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

Highest risk on site	Negligible
Highest risk within 50m	Negligible

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 57 >

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations

Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SS

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	6

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

Features are displayed on the Environmental designations map on page 58 >

ID	Location	Name	Data source
1	410m W	Carrick Heaths	Natural England

ID	Location	Name	Data source
2	799m W	Carrick Heaths	Natural England
3	827m W	Carrick Heaths	Natural England
4	951m NW	Carnkief Pond	Natural England
-	1472m SW	Carrick Heaths	Natural England
-	1490m W	Ventongimps Moor	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	0

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.

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	0

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

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

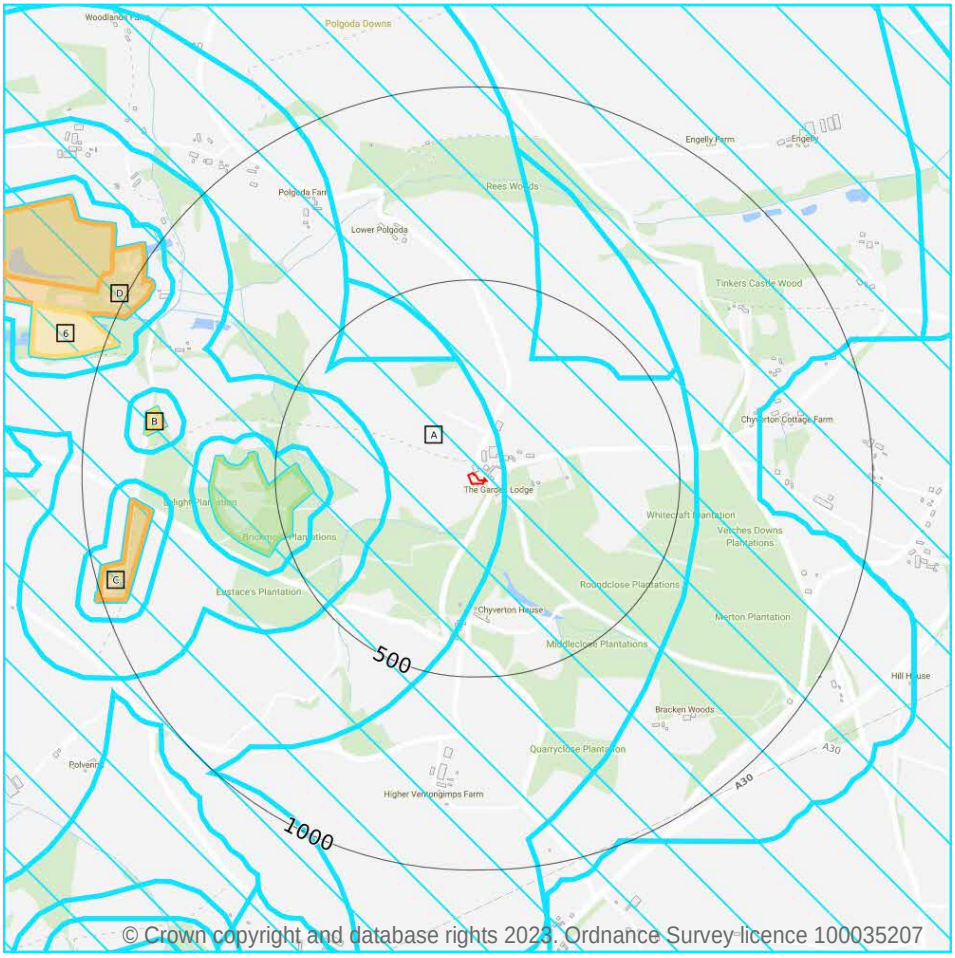
Records within 2000m	1

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
647m E	Truro, Tresillian and Falmouth	Eutrophic Water	5	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 63 >

ID	Location	Type of developments requiring consultation
A	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m² or footprint exceeds 0.2ha Residential - Residential development of 100 units or more. Rural residential - Any residential development of 50 or more houses outside existing settlements/urban areas. Air pollution - Any development that could cause AIR POLLUTION (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores). Combustion - All general combustion processes. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management Composting - Any composting proposal. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste that is discharged to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m² or any development needing its own water supply Notes: Strategic solutions for recreational impacts are in place. Please contact your Local Planning Authority as they have the information to advise on specific requirements.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	8

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

Features are displayed on the SSSI Impact Zones and Units map on page 63 >

ID:	A
Location:	410m W
SSSI name:	Carrick Heaths
Unit name:	Lelight & Brickmoor Plantation
Broad habitat:	Dwarf Shrub Heath - Lowland
Condition:	Favourable
Reportable features:	

Feature name	Feature condition	Date of assessment
Lowland wet heath	Favourable	16/10/2013
Population of RDB plant - Erica ciliaris, Dorset Heath	Favourable	16/10/2013
Valley fen (lowland)	Favourable	16/10/2013
Vascular plant assemblage	Favourable	16/10/2013

ID: B
Location: 799m W
SSSI name: Carrick Heaths
Unit name: Lelight
Broad habitat: Dwarf Shrub Heath - Lowland
Condition: Unfavourable - No change
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland dry heath	Not Recorded	01/01/1900
Population of RDB plant - Erica ciliaris, Dorset Heath	Not Recorded	01/01/1900

ID: C
Location: 827m W
SSSI name: Carrick Heaths
Unit name: Lelight Mine Shaft
Broad habitat: Dwarf Shrub Heath - Lowland
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Population of RDB plant - Erica ciliaris, Dorset Heath	Unfavourable - Declining	16/10/2013

ID: D
Location: 951m NW
SSSI name: Carnkief Pond
Unit name: 2
Broad habitat: Neutral Grassland - Lowland
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Vascular plant assemblage	Unfavourable - Declining	01/10/2010

ID: 6
Location: 971m W
SSSI name: Carnkief Pond
Unit name: 1
Broad habitat: Dwarf Shrub Heath - Lowland
Condition: Unfavourable - No change
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland wet heath	Not Recorded	01/01/1900
Vascular plant assemblage	Not Recorded	01/01/1900

ID: D
Location: 1064m NW
SSSI name: Carnkief Pond
Unit name: 3
Broad habitat: Neutral Grassland - Lowland
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland wet heath	Not Recorded	01/01/1900
Vascular plant assemblage	Not Recorded	01/01/1900

ID: -
Location: 1472m SW
SSSI name: Carrick Heaths
Unit name: Tresawsen
Broad habitat: Dwarf Shrub Heath - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland wet heath	Unfavourable - Recovering	24/10/2013
Population of RDB plant - Erica ciliaris, Dorset Heath	Unfavourable - Recovering	24/10/2013

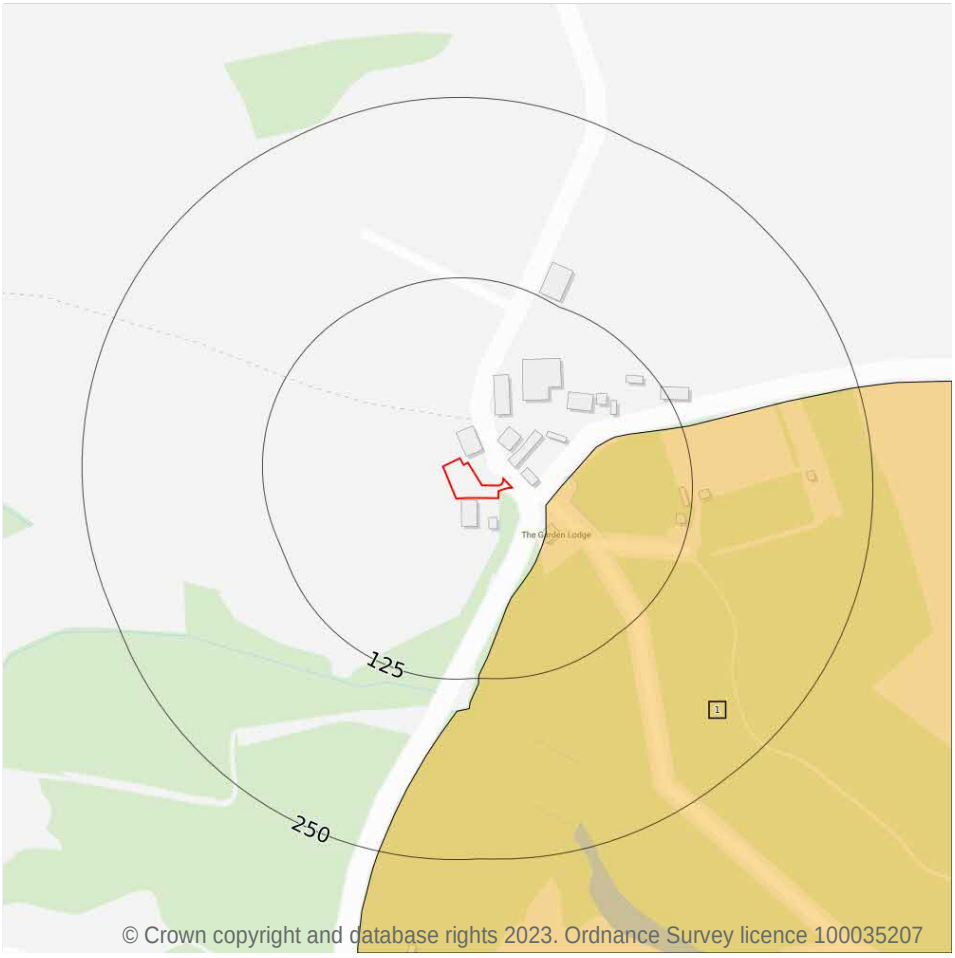
Feature name	Feature condition	Date of assessment
Vascular plant assemblage	Unfavourable - Recovering	24/10/2013

ID: -
Location: 1490m W
SSSI name: Ventongimps Moor
Unit name: Wet Heath
Broad habitat: Dwarf Shrub Heath - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland wet heath	Unfavourable - Recovering	27/09/2010
Nationally scarce plant - Sibthorpia europaea, Cornish Moneywort	Favourable	03/11/2009
Population of RDB plant - Erica ciliaris, Dorset Heath	Favourable	03/11/2009
Population of RDB plant - Euphrasia vigursii, Eyebright	Unfavourable - Recovering	27/09/2010

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	0

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

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

11.5 Conservation Areas

Records within 250m	0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

11.7 Registered Parks and Gardens

Records within 250m	1

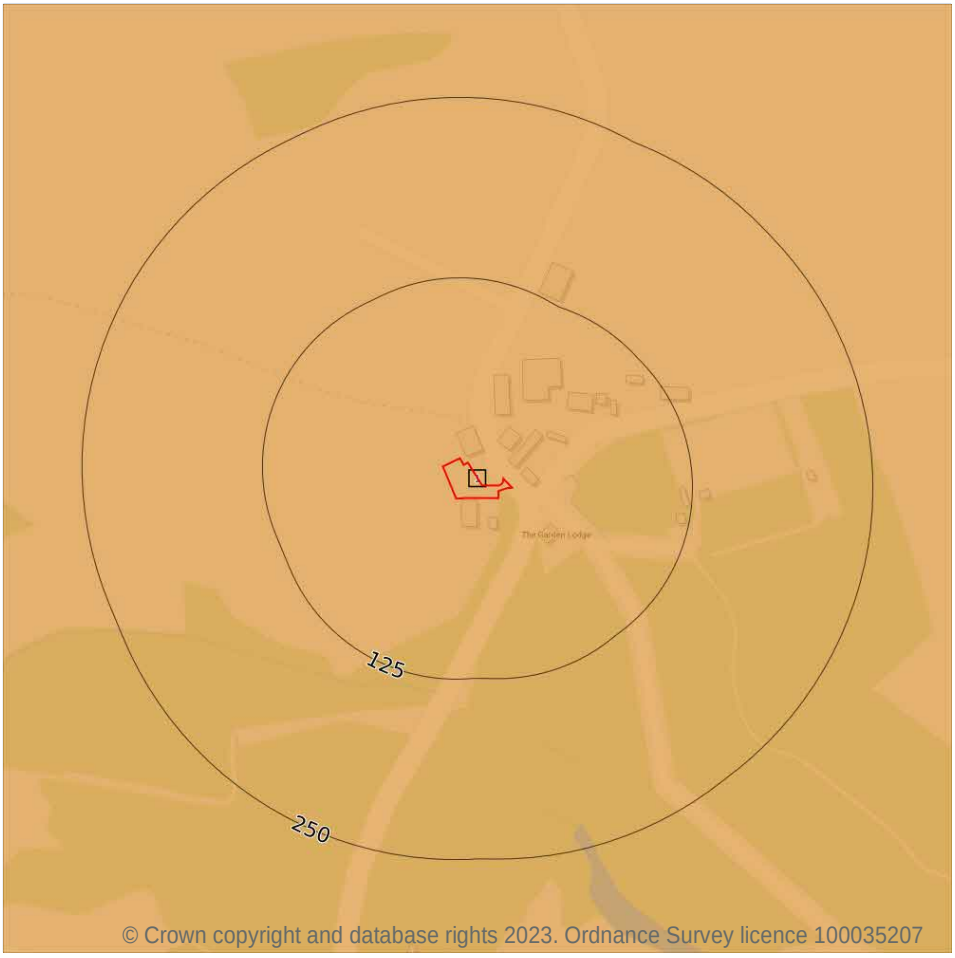
Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the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

Features are displayed on the Visual and cultural designations map on page 68 >

ID	Location	Name	Grade
1	26m E	Chyverton Park	II

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	1

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

Features are displayed on the Agricultural designations map on page 71 >

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

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

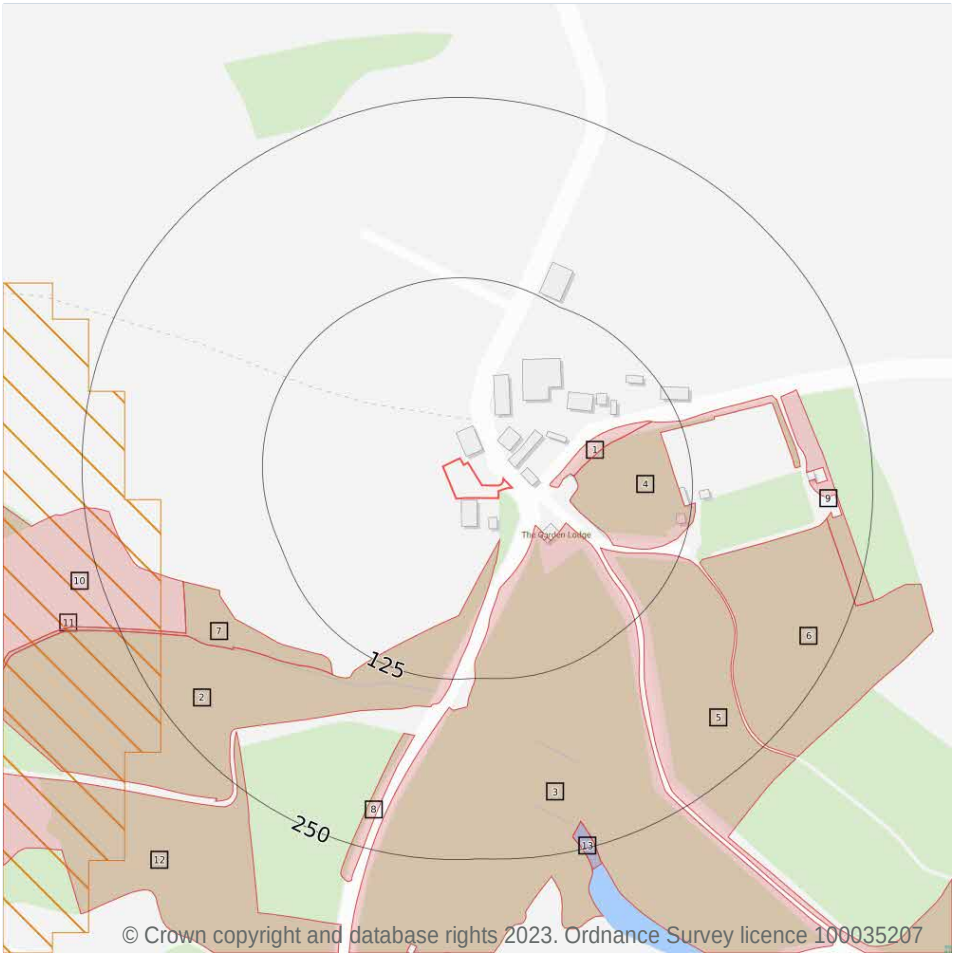
12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	12

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

Features are displayed on the Habitat designations map on page 73 >

ID	Location	Main Habitat	Other habitats
1	26m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	29m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	31m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	41m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
5	74m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	140m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	142m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	166m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	197m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	197m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
12	222m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
13	231m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	1

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.

Features are displayed on the Habitat designations map on page 73 >

ID	Location	Type	Habitat
11	197m W	Network Enhancement Zone 1	Not specified

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

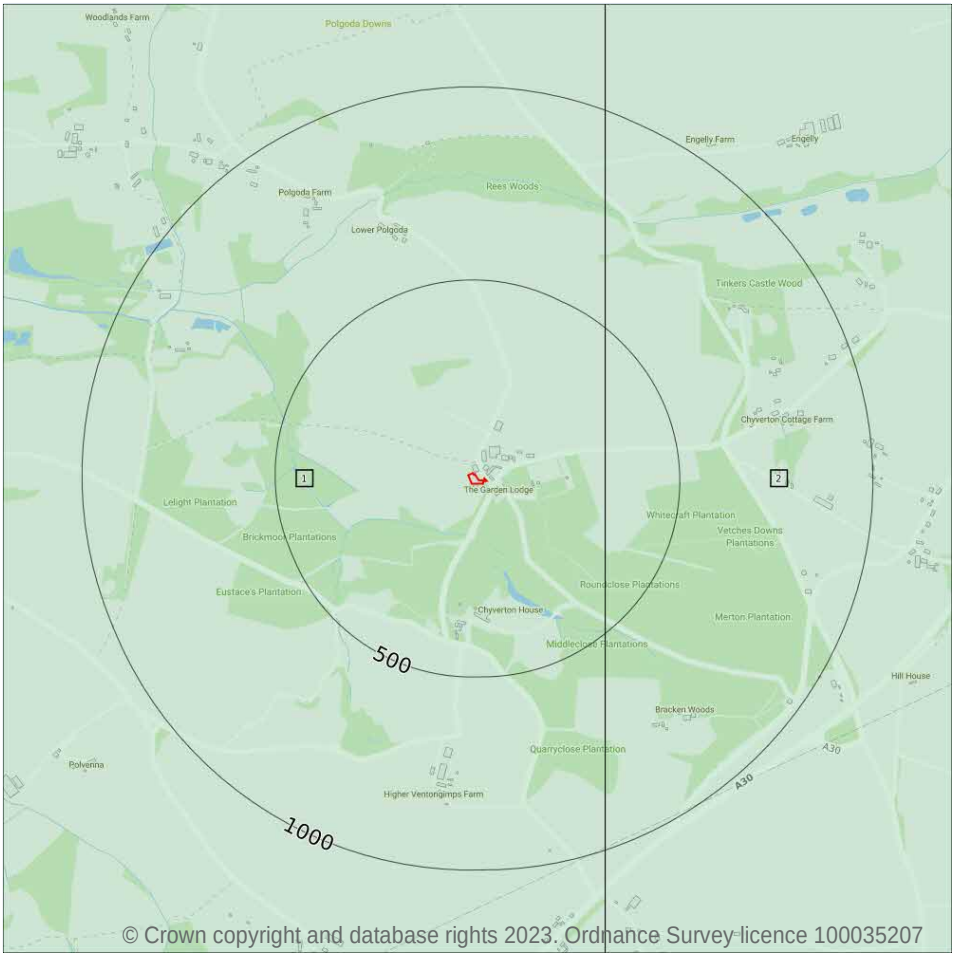
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m **2**

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

Features are displayed on the Geology 1:10,000 scale - Availability map on page 76 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SW75SE**
2	307m E	Full	Full	Full	No coverage	SW85SW

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	6

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 77 >

ID	Location	LEX Code	Description	Rock description
1	324m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	352m SW	DDGR-UKNOWN	Disturbed Ground (Undivided)	Unknown/unclassified Entry
3	352m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	357m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	447m W	WGR-ARTDP	Worked Ground (Undivided)	Artificial Deposit
6	468m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m 2

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 79 >

ID	Location	LEX Code	Description	Rock description
1	125m S	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
2	457m SE	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.

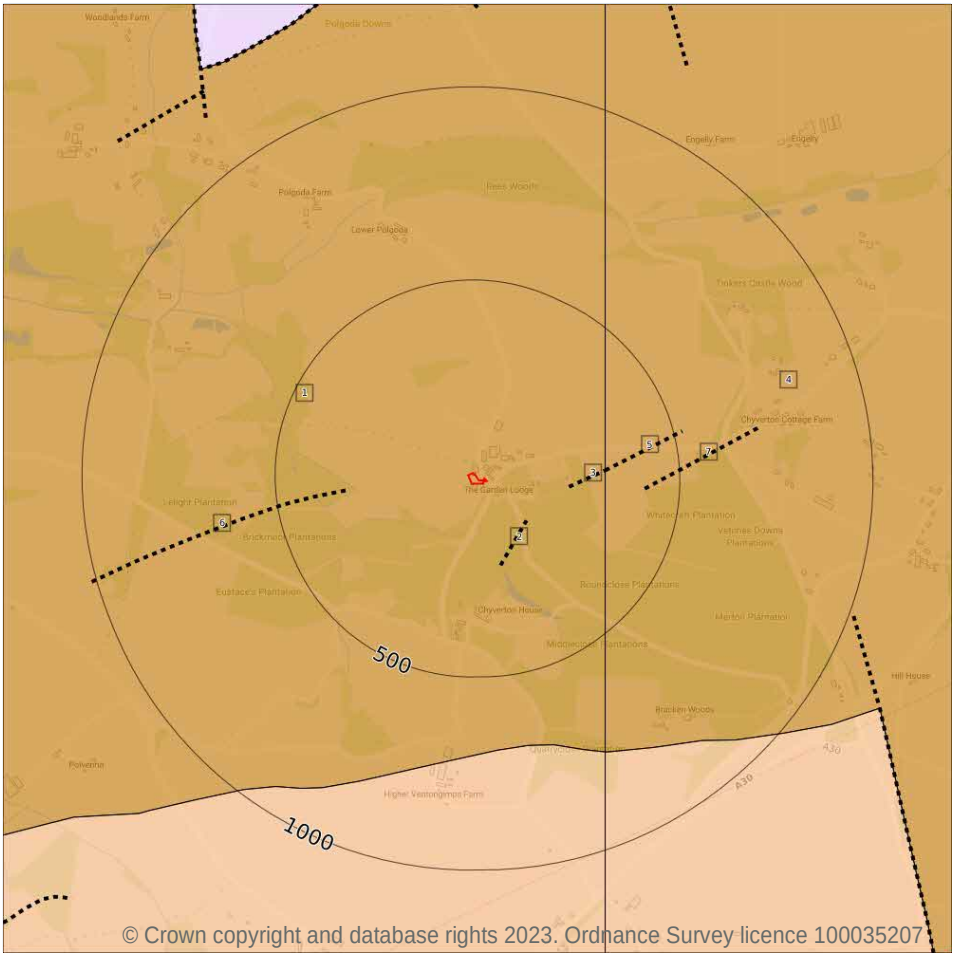
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	2

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**	**GRAD-SIM D**	**Grampound Formation - Siltstone And Mudstone, Interbedded**	**Mid Devonian Epoch**
4	307m E	GRAD-SIMD	Grampound Formation - Siltstone And Mudstone, Interbedded	Mid Devonian Epoch

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	5

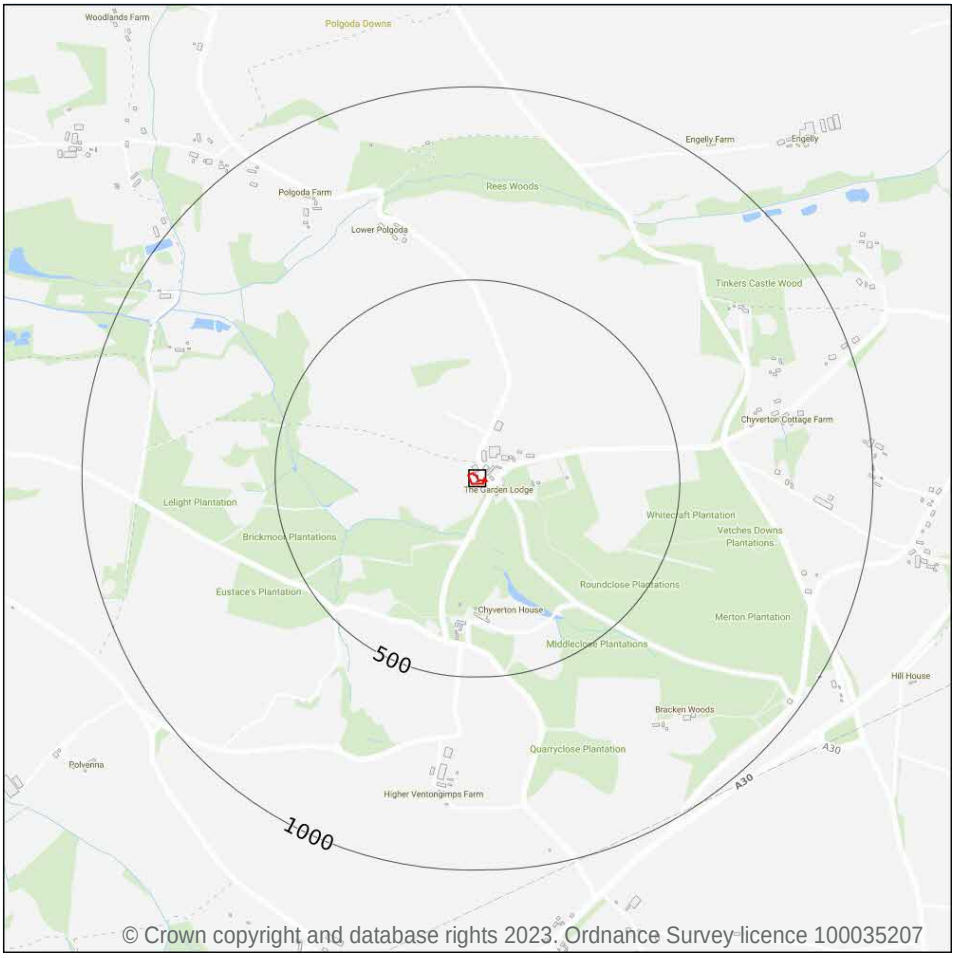
Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on page 81 >

ID	Location	Category	Description
2	145m SE	MINERAL_VEIN	Mineral vein, inferred
3	214m E	MINERAL_VEIN	Mineral vein, inferred
5	308m E	MINERAL_VEIN	Mineral vein, inferred
6	319m W	MINERAL_VEIN	Mineral vein, inferred
7	410m E	MINERAL_VEIN	Mineral vein, inferred

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	No coverage	EW346_newquay_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	2

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	352m SW	DDGR-ARTGR	DISTURBED GROUND (UNDIVIDED)	ARTIFICIALLY MODIFIED GROUND
2	468m SW	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	1

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	125m S	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	0

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).

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

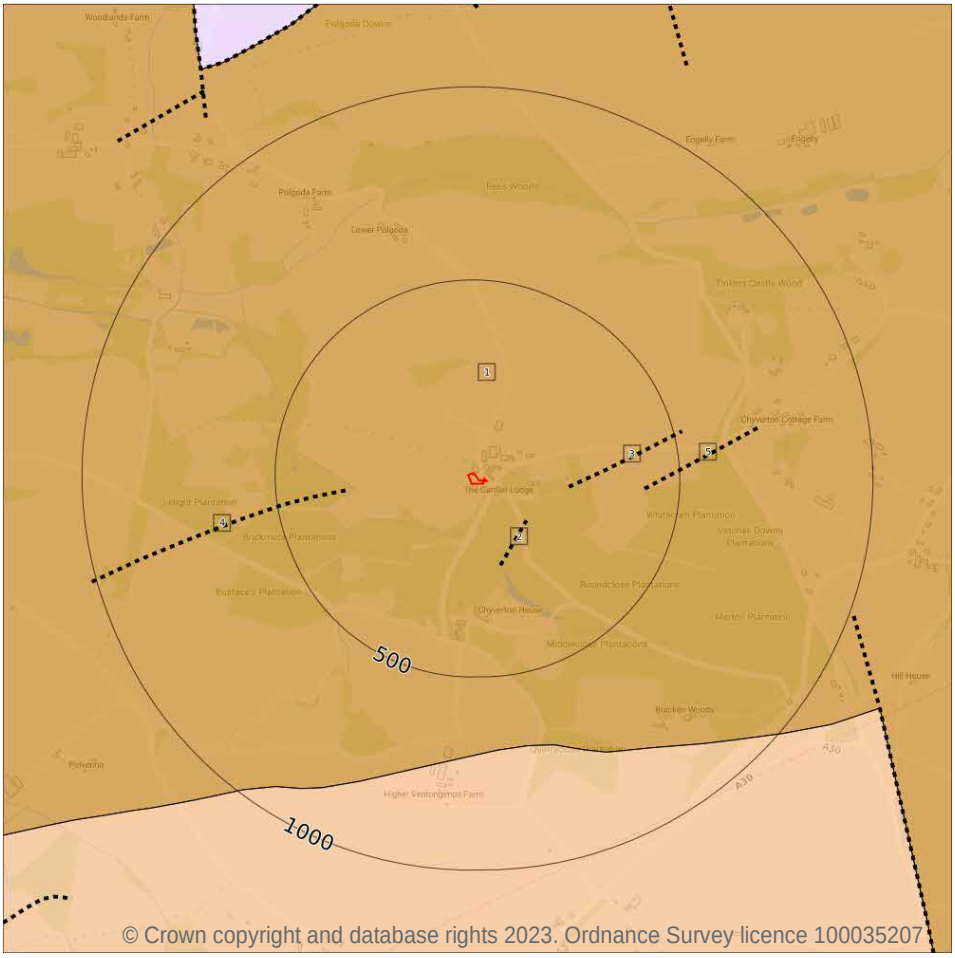
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 88 >

ID	Location	LEX Code	Description	Rock age
1	On site	GRAD-SIMD	GRAMPOUND FORMATION - SILTSTONE AND MUDSTONE, INTERBEDDED	-

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**	**Moderate**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	4

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 88 >

ID	Location	Category	Description
2	145m SE	MINERAL_VEIN	Mineral vein, inferred
3	213m E	MINERAL_VEIN	Mineral vein, inferred
4	319m W	MINERAL_VEIN	Mineral vein, inferred
5	409m E	MINERAL_VEIN	Mineral vein, inferred

This data is sourced from the British Geological Survey.

16 Boreholes

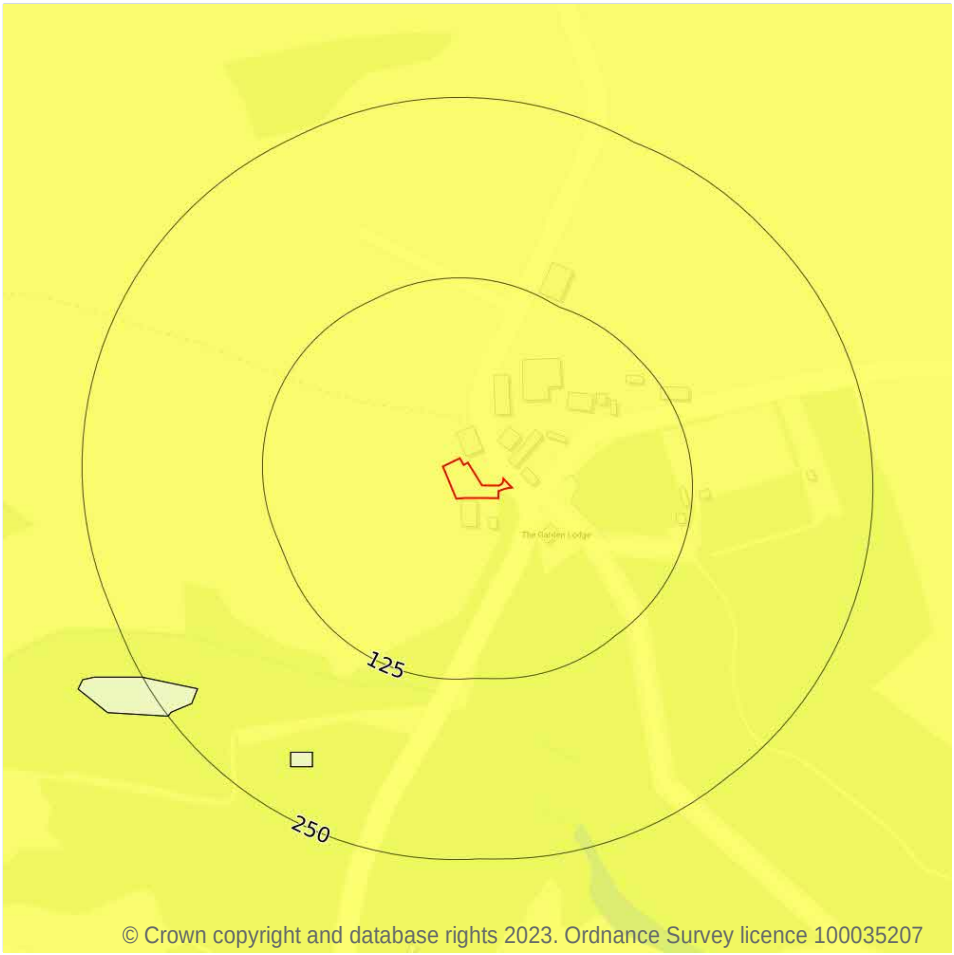
16.1 BGS Boreholes

Records within 250m	0

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

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on page 91 >

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands

Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Running sands map on page 92 >

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

This data is sourced from the British Geological Survey.