clarkebond C23

Preliminary Risk Assessment (Phase 1 Desk Study)

Pineapple Farm

E05481-CLK-00-XX-RP-G-0001

M7 Planning Limited

clarkebond

MULTIDISCIPLINARY ENGINEERING CONSULTANTS

Preliminary Risk Assessment (Phase 1 Desk Study)

Report No.	Date.
E05481-CLK-00-XX-RP-G-0001	12th October 2020

Project
Pineapple Farm

Client Name
M7 Planning Limited

Issue Date	Status	Comments
12th October 2020	S2 P01	For information

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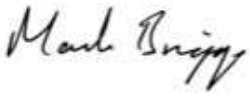
Director Ground Engineering



	The Cocoa House, 129 Cumberland Road, Bristol, BS1 6UY Tel: +44 (0)117 929 2244
X	GF Suite, Bickleigh House, Park Five Business Centre, Exeter, EX2 7HU Tel: +44 (0)1392 369098
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Contents

Appendices

Executive Summary

Client	M7 Planning Limited.
Site	Pineapple Farm.
Location	Mulberry Road, Congresbury, BS49 5HE. NGR 344268, 163147.
Approximate area	3.3 hectares.
Topography	Gentle slope down towards the north east.
Current land use	Agricultural land.
Proposed development	Low rise residential with associated highways, drainage and public open space.
Client Brief	Undertake to Phase 1 Preliminary Risk Assessment to identify geotechnical risks and assess any whether any significant contamination risks are associated with the site.
Site History	Ordnance Survey plans indicate the site to have remained undeveloped since 1888.
Geology	Superficial deposits of Tidal Flat Deposits over Mercia Mudstone Group.
Radon	No radon protective measures are required.
Hydrogeology	Bedrock Geology: Secondary B aquifer. Superficial Deposits: Unproductive Strata. There are no licenced groundwater abstraction points within 500m of the site. Groundwater is considered to be of low sensitivity to any potential on site contamination.
Hydrology	The nearest surface water is on the north east boundary. Surface water is considered to be of high sensitivity to any potential on site sources of contamination.
Landfill sites	No landfills located within 1km of the site.
Previous site investigations	Clarkebond have not been made aware of any previous investigations undertaken at this site.
Anticipated ground conditions	Soft clay and silt over firm becoming stiff clay. The depth of low strength soils is not known however previous development to the south indicated competent strata at 1 to 2m depth.
Foundations	Traditional foundations were used in the development to the south; similar ground may underlie this site. However, piled foundations may be required if the thickness of soft clay exceeds 2 - 3m then. A site investigation is required to confirm foundation requirements.
Shrinkable soils	Soils are likely to be shrinkable.
Buried concrete	Significant concrete protection measures unlikely to be required.
Floor slabs	Suspended floor slabs likely to be required.
Slope stability	Site and adjacent area are level and therefore no risks.
Pavement	CBR values likely to be low if soft Tidal Flat Deposits are present. May require thickened construction or lime / geo-grid.
Soakaways	Underlying geology unlikely to be suitable for soakaway drainage. The Local Authority may require full scale testing to demonstrate that the soils are unsuitable.
Natural cavities	None expected.
Mining	None expected.
Mining	None expected.
Human health	No significant risks identified.
Controlled waters	No significant risks identified.
Gas protection	No sources of ground gas (CH_4 and CO_2) identified. No radon protection measures required.
Water supply pipes	No significant risks identified; standard pipework likely to be suitable.

1 Introduction

1.1 Introduction and Brief

In October 2020 Clarkebond (UK) Limited was commissioned by M7 Planning Limited to undertake a Preliminary Land Contamination and Geotechnical Risk Assessment at Pineapple Farm, Mulberry Road, Congresbury for the proposed redevelopment of the site.

It is understood that the site is being considered for low rise residential redevelopment with capacity to deliver up to 100 units together with associated infrastructure. A provisional masterplan concept has been provided by M7 Planning Limited and is presented in Appendix A. The site currently comprises undeveloped grassland.

The location of the site is shown on Figure 2.1.

1.2 Project Requirements

The purpose of this Phase 1 assessment is to determine the potential risks from contamination and to identify potential geotechnical risks and constraints and include:

- Establish the environmental setting, including sensitivity in relation to human health, surface water, groundwater and ecological receptors.
- Review historical and recent land uses to assess the potential for contamination to be present from past and current land-use.
- Qualitatively assess the potential nature and extent of contamination from those uses and the environmental risks and liabilities that may be posed to the identified receptors (human health and the environment).
- Assess any potential geotechnical risks.

1.3 Information Sources

During the production of this report the following sources have been reviewed:

- An Enviro-Geo Insight Report prepared by Groundsure (Report Number GS-7125848 dated 5th October 2020).
- Historic Ordnance Survey maps.
- British Geological Survey maps.
- British Geological Survey borehole records.
- Environment Agency landfill records.
- Environment Agency groundwater data.

1.4 Previous Investigations

Clarkebond (UK) Limited have not been made aware of any previous investigations that may have been undertaken at this site.

1.5 Limitations

This report is provided for the benefit only of the party to whom it is addressed and we do not accept responsibility to any third party for the whole or any part of the contents and we exercise no duty of care in relation to this report to any third party.

Where intrusive investigations have been completed, information, comments and opinions given in this report are based on the ground conditions encountered during the site work and on the results of laboratory and field tests performed during the investigation. However, subsoils are inherently variable and hidden from view such that no investigation can be exhaustive to the extent that all soil conditions are revealed. Conditions may therefore be present beneath the site that were not apparent in the data reviewed as part of this assessment. In particular, it should be noted that groundwater levels vary due to seasonal and other effects and may at times differ to those measured during the investigation.

This assessment has been based to a large extent on data acquired from Third Parties. This data has been taken at face value and has not been subjected to any third party validation.

Unless specifically noted to the contrary, it should be assumed that this report has not been submitted to any regulatory authorities for approval.

2 Site Setting

The site is located to the east of Congresbury at approximate National Grid Reference 344268, 163147. A site location is presented as Figure 2.1 below.

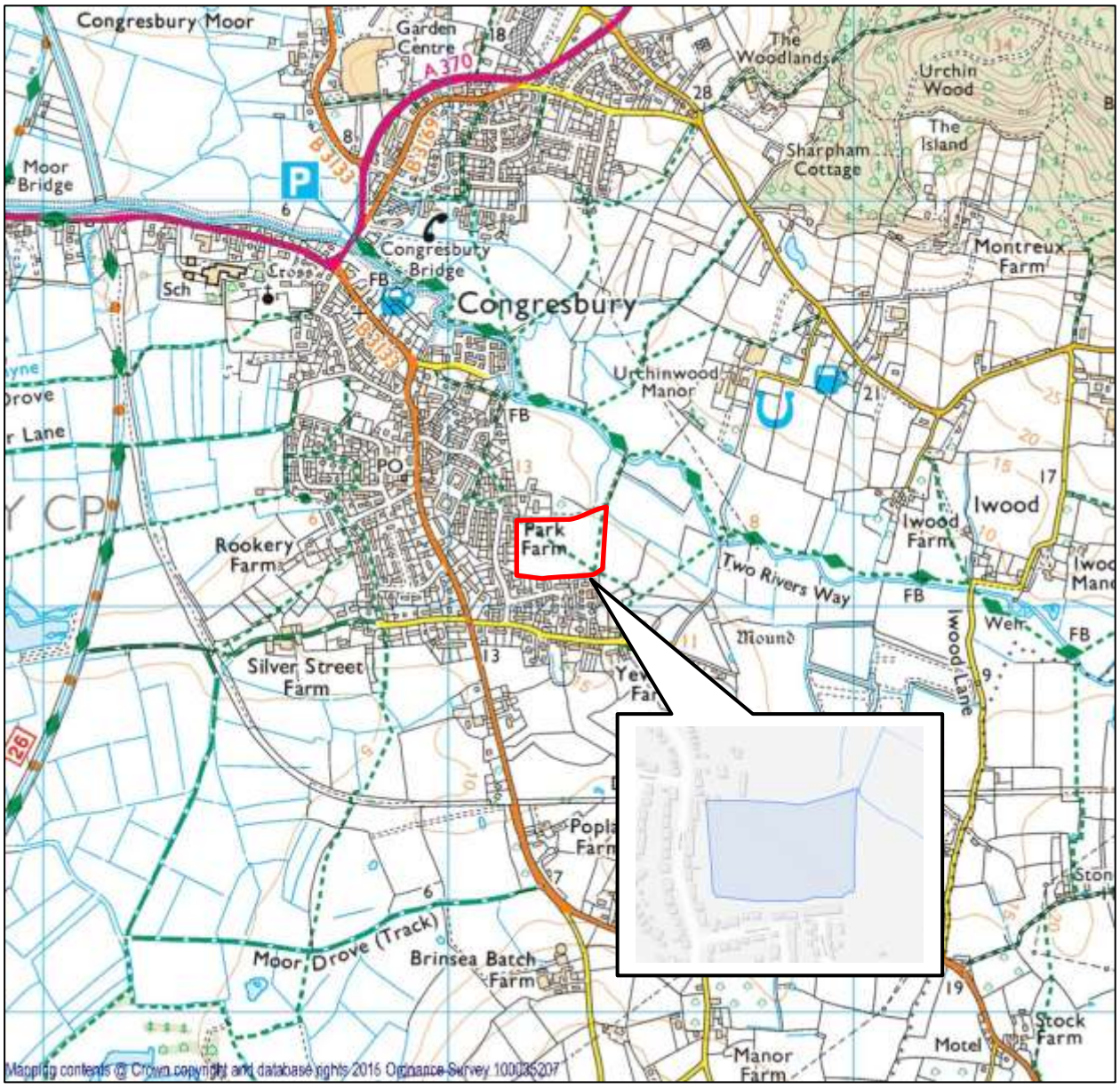


Figure 2.1 Site Location

2.1 Site Description

The site consists of a grassed agricultural field and the topography generally slopes down gently from south east to north west. Access is provided off Mulberry Road, via an agricultural track. The site boundaries comprise trees and shrubs and gardens of adjoining properties.

2.2 Adjacent land Use

The site is bounded to the west, south and north by existing residential areas, with agricultural land to the east.

Figure 2 shows the site setting.

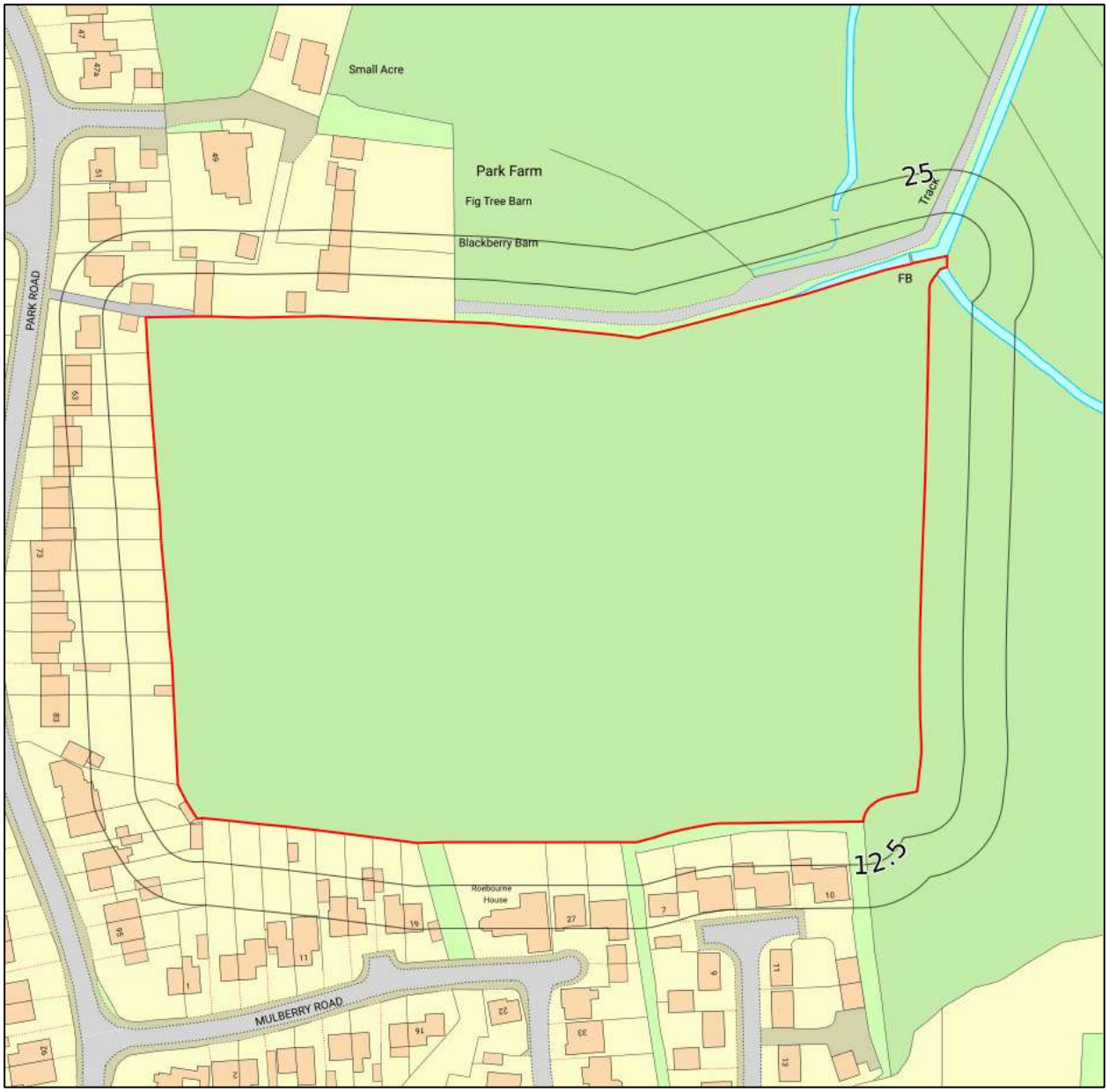


Figure 2 Site layout

2.3 Photographs

3 Environmental Setting

3.1 Geology

The 1:50,000 scale British Geological Survey (BGS) geological mapping indicates the site to be underlain by superficial deposits comprising Tidal Flat Deposits (clay, silt, sand and gravel) overlying the bedrock geology of Mercia Mudstone Group.

3.2 Hydrogeology

The Environment Agency classifies the Mercia Mudstone Group at the site to be a Secondary B aquifer. The Tidal Flat Deposits strata are designated as Unproductive Strata. There are no licenced groundwater abstractions within 500m of the site.

The likely low permeability of the geology and the aquifer status would suggest that groundwater would be of low sensitivity to any potential on site sources of contamination.

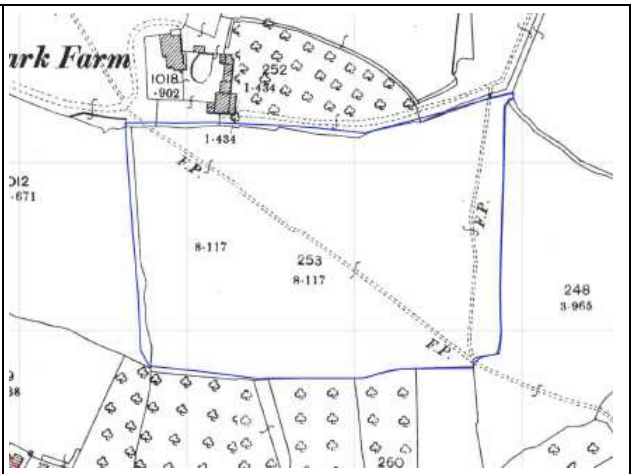
3.3 Hydrology

The nearest surface water is a tertiary river which rises on the site's north eastern boundary. The proximity would suggest that surface water is considered to be of high sensitivity to any potential on site sources of contamination.

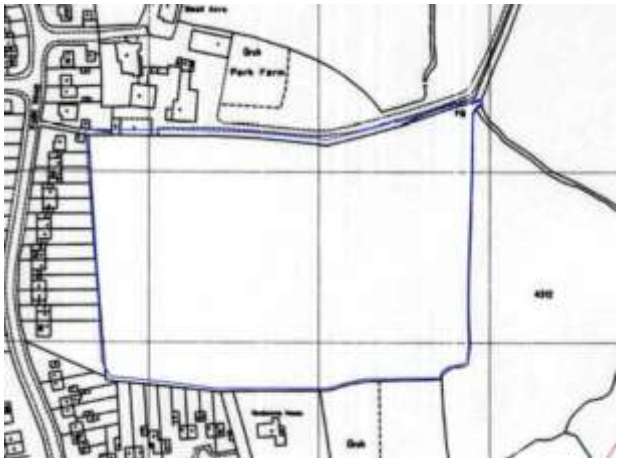
3.4 Site History

Historical maps of the site area have been obtained via Groundsure. Pertinent information determined from review of these maps, as well as other publicly available aerial imagery, is set out in Table 3.1, with the source maps presented in Appendix B.

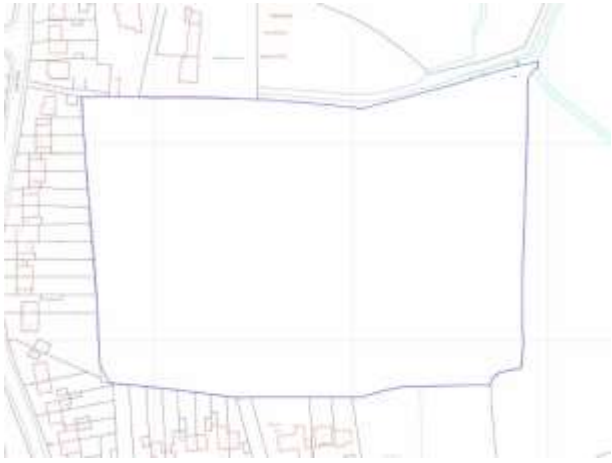
Table 3.1 Historical map extracts

	
1885: The site is part of a field. The surrounding land is a mix of fields and farms buildings.	**1903**: No significant changes.

1974: Residential development to the south and west.



1995: No significant changes.



2003: No significant changes.

2017: Aerial Photo (image from Google Earth).

3.5 Landfill Sites

No current or historical landfills are known to exist within 1km of the site.

3.6 Radon

The Enviro Geo Insight report states that the site is in an area where the estimated probability of homes being above the action level of 200Bqm^{-3} is less than 1%. On this basis no radon protective measures are required in the construction of new buildings or extensions.

3.7 Statutory Authority Records

A review of public registers contained within the Enviro-Geo Insight Report has been undertaken. These entries relate to trade directories, pollution control registers, hazardous sites, enforcement notices etc. No entries are considered to be relevant to the site; for full details of all entries, reference should be made to the Enviro-Geo Insight Report in Appendix C.

3.8 Sensitive Land Uses and Designated Areas

None within 250m.

4 Geotechnical Assessment

4.1 Introduction

The site is indicated to be underlain by superficial deposits comprising Tidal Flat Deposits (clay, silt) overlying the bedrock geology of Mercia Mudstone Group.

An assessment of potential geotechnical risks based on the information from the Groundsure report and available geological information is presented in the following sections. The risks are summarised in Table 4.1. The Groundsure Report is reproduced in Appendix C.

4.2 Deep Made Ground

The site has remained undeveloped and therefore Made Ground is considered unlikely.

4.3 Buried Structures

The site has remained undeveloped and therefore former foundations and substructures are unlikely to be present.

4.4 Compressible Soils

The Groundsure GeoInsight report states that the Compressible Ground risk at the site is “Moderate”. The Tidal Flat Deposits are typically compressible and can contain peat layers which are highly compressible.

4.5 Shrinking / Swelling Clay

The Groundsure GeoInsight report states that the Shrinking or Swelling Clay risk at the site is “low”. This is based on the anticipated Mercia Mudstone Group. However the near surface soils are anticipated to be clays of the Tidal Flat Deposits and therefore are likely to be shrinkable.

4.6 Collapsible soils

The Groundsure GeoInsight report states that the Collapsible Ground risk at the site is “very low”. Based on the anticipated ground conditions, collapsible soils are not expected.

4.7 Aggressive Ground Conditions for Concrete

Based on the published geology, the anticipated soils are not expected to contain significantly elevated concentrations of soluble sulphates or pyritic materials which may oxidise to form soluble sulphates.

4.8 Running Sands / Excavation Instability

The Groundsure report states that the Running Sand risk at the site is “moderate”. Based on the anticipated ground conditions, running sands may be present within the Tidal Flat Deposits.

4.9 Groundwater

No evidence of a high water table (such as ponding water, hydrophilic plants, soft ground etc) was noted during the site walkover. The south western part of the site was wet at the time of the survey. Rushes observed in this area suggests that this area of the site may be poorly drained.

4.10 Slope Stability

The Groundsure report states that the Landslide risk at the site is "very low". The site is topographically flat. Provided no significant alterations to the site's topography are made no issues with stability are anticipated.

4.11 Solution Features / Natural Cavities

The site is expected to be underlain by interbedded mudstones, siltstones and sandstones of the Mercia Mudstone Group which are not prone to dissolution. The Groundsure report states that the Ground Dissolution risk at the site is "negligible" and no solution features are recorded within 1km.

4.12 Underground Mining

The site does not lie within an area that has been mined. Consequently, the risks from underground mining within the site itself are considered to be negligible.

4.13 Summary

Table 4.1 Summary of Geotechnical Hazards.

Potential Geological Hazard	Impact on proposed development	Likelihood of presence
Deep Made Ground	High	Unlikely
Buried structures	Moderate	Unlikely
Compressible ground	Moderate	Likely
Shrinking / swelling clay	Moderate	Likely
Collapsible ground	High	Unlikely
Aggressive ground conditions for concrete	Low	Unlikely
Running sands / excavation instability	Moderate	Possible
High water table / groundwater inflows.	High	Likely
Slope stability	Moderate	Unlikely
Underground mining	High	Unlikely
Ground dissolution / natural cavities	High	Unlikely

The site is likely to be underlain by low strength clay, silt and peat (Tidal Flat Deposits) overlying the bedrock of the Mercia Mudstone Group. The depth of these low strength soils is not known. New dwellings were recently constructed to the south of the site and reference to North Somerset planning portal identifies the application as 16/P/0147/F. A basic ground investigation was undertaken for the development comprising two trial pits. These both identified firm clay of the Mercia Mudstone Group at shallow depth and traditional foundations were recommended. The presence of residential properties adjacent to the site to the east and north would suggest that competent strata are at fairly shallow depth.

Therefore traditional foundations may be suitable. The soils are likely to be shrinkable and foundations would need to be deepened in the vicinity of trees. Suspended ground floor slabs are also likely to be required.

The clay soils anticipated to be present are likely to possess infiltration rates of less than 1×10^{-6} m/s and therefore efficient soakaway drainage is unlikely to be feasible. Soakage testing was undertaken during the site investigation works for the development to the south and both tests failed to drain therefore no infiltration rate was calculated. The Local Authority may still require full scale testing in accordance with BRE 365 (2016) to demonstrate that infiltration rates are too low for soakaway drainage.

5 Conceptual Model & Risk Assessment

The site characterisation attempts to identify potential previous and existing site sources of contamination. The conceptual model links the identified sources likely to cause significant possibility of significant harm via pathways to identified critical receptors. The conceptual model is therefore based on a number of identified source-pathway-receptor scenarios. For land to be classified as contaminated a significant pollutant linkage will need to be identified which will include each component of the conceptual model. The absence or removal of a source or interception of a pathway will 'break' the pollutant linkage.

The conceptual model is characterised by identification of the following:

- **On-site** sources, which may impact on-site receptors via plausible pathways.
- **On-site** sources, which may impact off-site receptors via plausible pathways.
- **Off-site** sources, which may impact on-site receptors via plausible pathways.

In the event of a change of land use, the planning regime will require assessment of the new site development layout within the context of the sources or risk and introducing new exposure pathways. The assessment is also used to determine if the site, once developed, would class as contaminated land under the definition provided by the Part 2A of the Environment Act 1990 as defined in the Environment Protection Act 1995.

5.1 Potential Contaminant Sources

5.1.1 Onsite

No significant areas of potential concern were identified from the site walkover.

5.1.2 Naturally occurring metals

The BGS "Normal Background Concentrations of Contaminants in English Soils indicates the typical estimated concentrations of each determinant in topsoil in the locality of the site, as shown in Table 5.1.

Table 5.1 Summary of BGS Estimated Soil Geochemistry

Determinant	Concentration Range (mg/kg)
Arsenic	15 - 25
Cadmium	1.8
Chromium	60-90
Lead	100
Nickel	15-30

The BGS estimated soil geochemistry does not indicate elevated concentrations of naturally occurring metals.

None of the metals exceed the Category 4 Screening Levels (C4SLs) or Soil Guideline Values (SGVs) where C4SL's have not been published, for a "Residential with Plant Uptake" end use. Consequently, it is considered that the naturally occurring metals likely to be present at the site do not present a potential source of contamination.

5.1.3 Off site

The surrounding land use was a mixture of undeveloped farmland and residential properties.

5.1.4 Potential Contaminants of Concern

In the absence of any specific potential sources, a general suite of common contaminants should suffice in assessing actual risks.

5.2 Ground Gas

No landfills are located within 1km of the site. No evidence of buried biodegradable materials or other potential sources of ground gas expected within or near the site. Consequently the risks to end users from explosive or asphyxiating gases is considered low.

No radon protection measures are required.

5.3 Receptors

It is understood that the site will be redeveloped with low rise residential properties. Future Residents are assumed therefore to occupy the site full time and may be exposed directly to soils within the site. Construction workers would be directly exposed to soils, however this would only be short term. Credible receptors are therefore considered to be:

- Future Residents
- Construction workers
- Construction materials (including services)
- Groundwater – Secondary B aquifer.
- Surface Water – on north east site boundary.
- Flora and fauna.

5.4 Preliminary Risk Assessment

A preliminary risk assessment was undertaken based on a qualitative assessment of the likely presence of a pollutant linkage. A pollutant linkage is the relationship between a source (or contaminant), a pathway and a target (or receptor). Unless all three elements of a pollutant linkage are present, a significant risk is not considered to exist. The approach adopted is to screen each site based on assigning a simple low, medium or high category.

Table 5.2 Source – Pathway – Receptor Model

Source	Receptor	Pathway	Probability	Severity	Risk
No sources identified within PRA. However, unrecorded materials, such a made ground, may be present.	End users	Ingestion of and dermal contact with soil. Inhalation of dust.	Low likelihood – no evidence of presence of contaminants.	Medium	Low
	Construction workers	Direct contact - Dermal contact, soil ingestion and dust inhalation.	Low likelihood – no evidence of presence of contaminants.	Medium	Low
	Surface water	Migration of leachable or liquid contaminants into brook.	Unlikely – no evidence of presence of contaminants.	Minor	Very low
	Groundwater	Migration of leachable or liquid contaminants into groundwater.	Unlikely – impermeable soil and Secondary B classification, no evidence of presence of contaminants.	Minor	Very low
Hydrocarbons in soil derived from former use of the land	End users	Potable water supply pipes.	Low likelihood – no evidence of presence of contaminants.	Medium	Low
Ground gases from natural or man-made soils with high organic content.	End users	Permeation through ground and intrusion into buildings.	Unlikely - no sources identified.	Severe	Low
Radon Gas from natural soils/rocks	End users	Permeation through ground and intrusion into buildings.	Unlikely - site is not in a radon affected area.	Medium	Very low

Definitions of probability, severity and risk and outlined in Appendix D.

5.5 Summary and Further Work

The site appears to have comprised undeveloped land with no evidence of potentially contaminative processes or materials within or adjacent to the site.

No remedial works are considered to be necessary on the basis of the Preliminary Risk Assessment.

However, to identify ground conditions and foundation solutions and confirm the assumptions drawn from the desk study an intrusive investigation would be required. Actual risks from contamination would be confirmed during the investigation by laboratory analysis.

6 Limitations and Uncertainties

6.1 General

It should be noted that the levels of risk identified in this report are perceived risks based on the information reviewed. No physical investigation or testing has been carried out; actual risks can only be assessed following a physical investigation of the site. Further work, including physical investigation, laboratory testing and ground gas monitoring may be required by the appropriate regulators to confirm actual conditions.

This report has been prepared by Clarkebond (UK) Ltd with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the Client.

The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true representative data with respect to site conditions.

The information reported herein is based on the interpretation of data collected during the site investigation, pertaining specifically to the soil samples retained from the identified locations. Should additional information become available that may influence the opinions expressed in this report, Clarkebond (UK) Ltd reserves the right to review such information and, if warranted, to alter the opinions accordingly.

The evaluation and conclusions do not preclude the existence of other site conditions and contamination, which could not reasonably have been revealed by the site investigation works undertaken at the time of writing. This report should be used for information purposes only and should not be construed as a comprehensive characterisation of all site conditions or potential contaminants.

This report has been prepared solely for the use of the client, and may not be relied upon by other parties without written consent from Clarkebond (UK) Ltd.

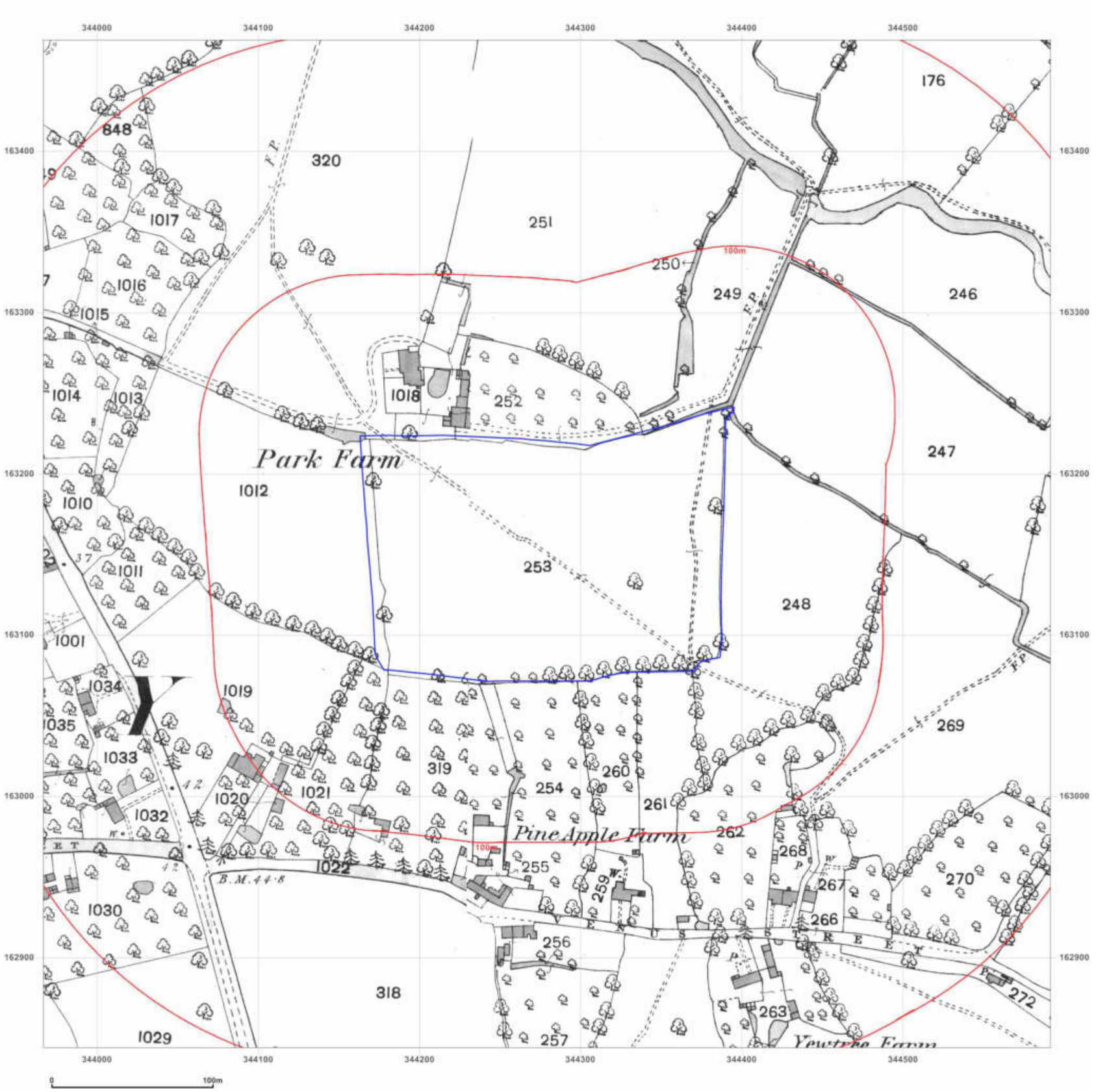
Clarkebond (UK) Ltd disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

Appendices

A Proposed Development Plan
B Historic Maps
C Geo-Enviro Insight Report
D Risk Definition

A Proposed Development Plan

B Historic Maps



Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: County Series

Map date: **1885**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1885
Revised 1885
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1885
Revised 1885
Edition N/A
Copyright N/A
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Production date: 05 October 2020

Map legend available at:
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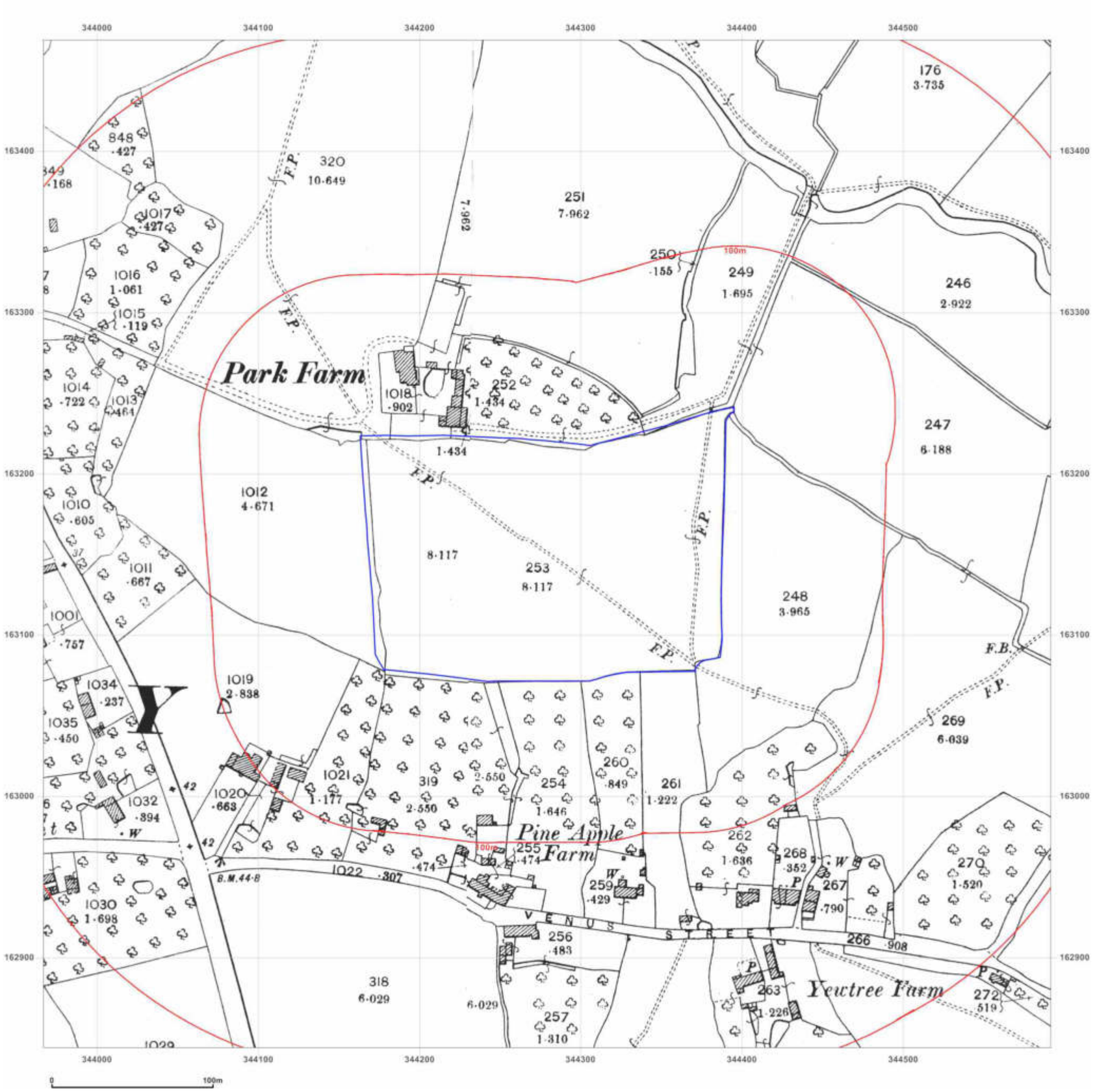

Groundsure INSIGHTS

Site Details:

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CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

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Revised 1903
Edition N/A
Copyright N/A
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Surveyed 1903
Revised 1903
Edition N/A
Copyright N/A
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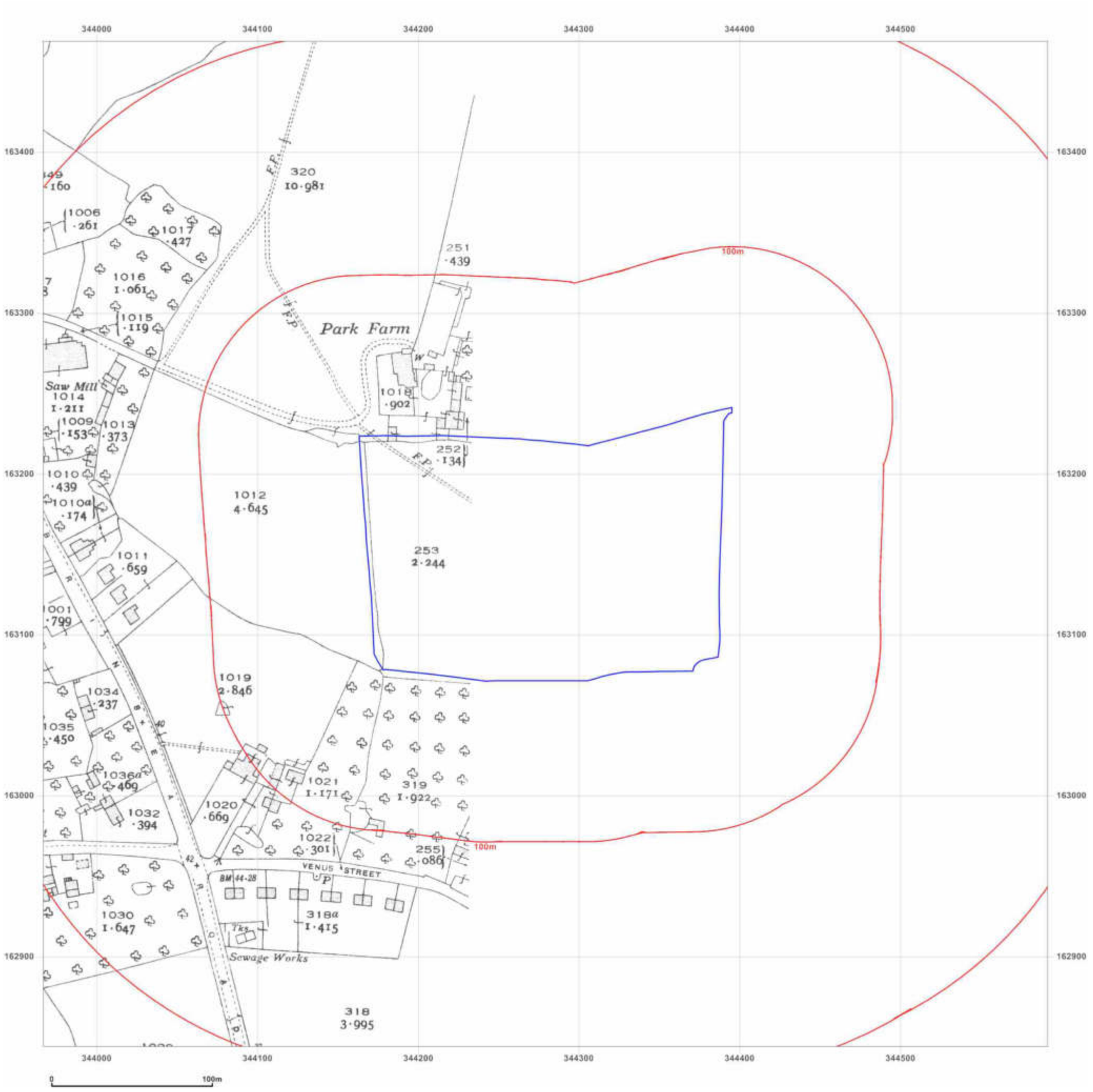

Groundsure INSIGHTS

Site Details:

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CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
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Map Name: County Series

Map date: **1936**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1936
Revised 1936
Edition N/A
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Production date: 05 October 2020

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Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid
Map date: **1973-1974**
Scale: 1:2,500
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Revised 1974
Edition N/A
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Edition N/A
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Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid

Map date: **1986-1990**

Scale: 1:2,500

Printed at: 1:2,500

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Revised 1987
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Map legend available at:
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Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid

Map date: **1987-1990**

Scale: 1:2,500

Printed at: 1:2,500

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Edition N/A
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Site Details:

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CONGRESBURY, BS49 5HD

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Scale: 1:2,500

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Surveyed 1990
Revised 1990
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Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid

Map date: **1990-1995**

Scale: 1:2,500

Printed at: 1:2,500

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Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: LandLine
Map date: **2003**
Scale: 1:1,250
Printed at: 1:1,250

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Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: County Series

Map date: **1883-1884**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1883
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Surveyed 1883
Revised 1883
Edition N/A
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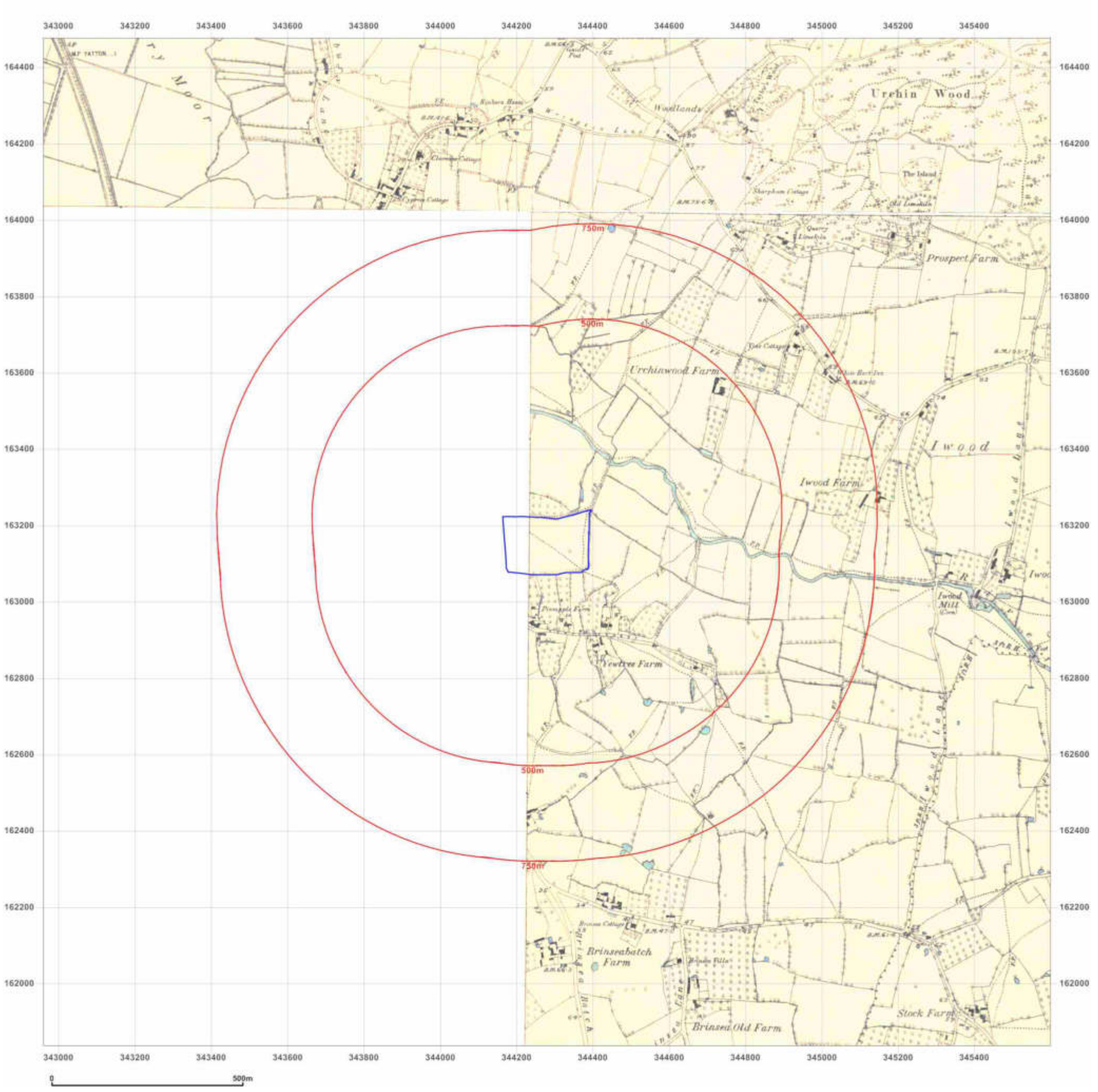

Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: County Series

Map date: **1883-1884**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1883
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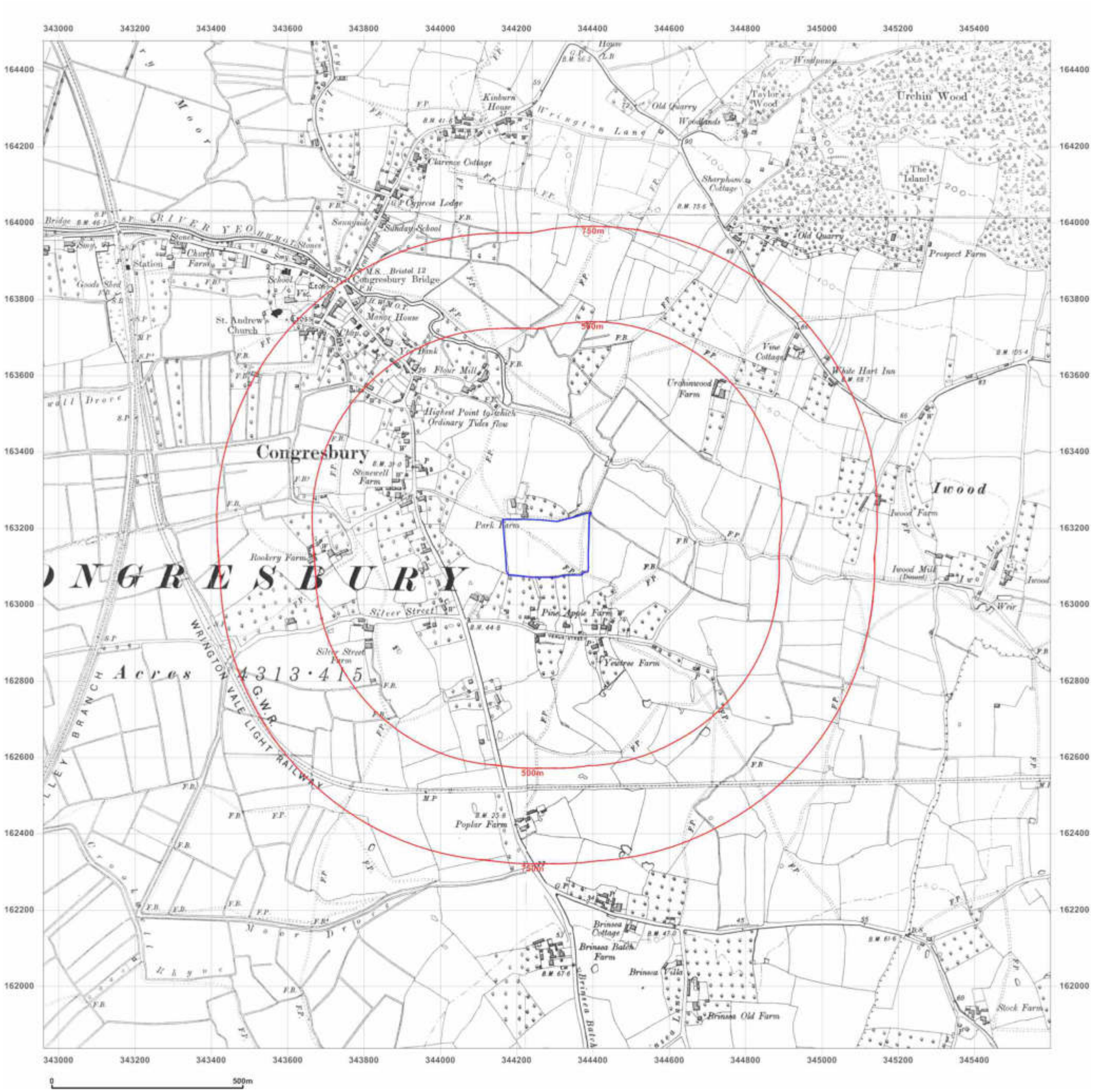

Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: County Series

Map date: **1902-1904**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1883
Revised 1902
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Revised 1903
Edition N/A
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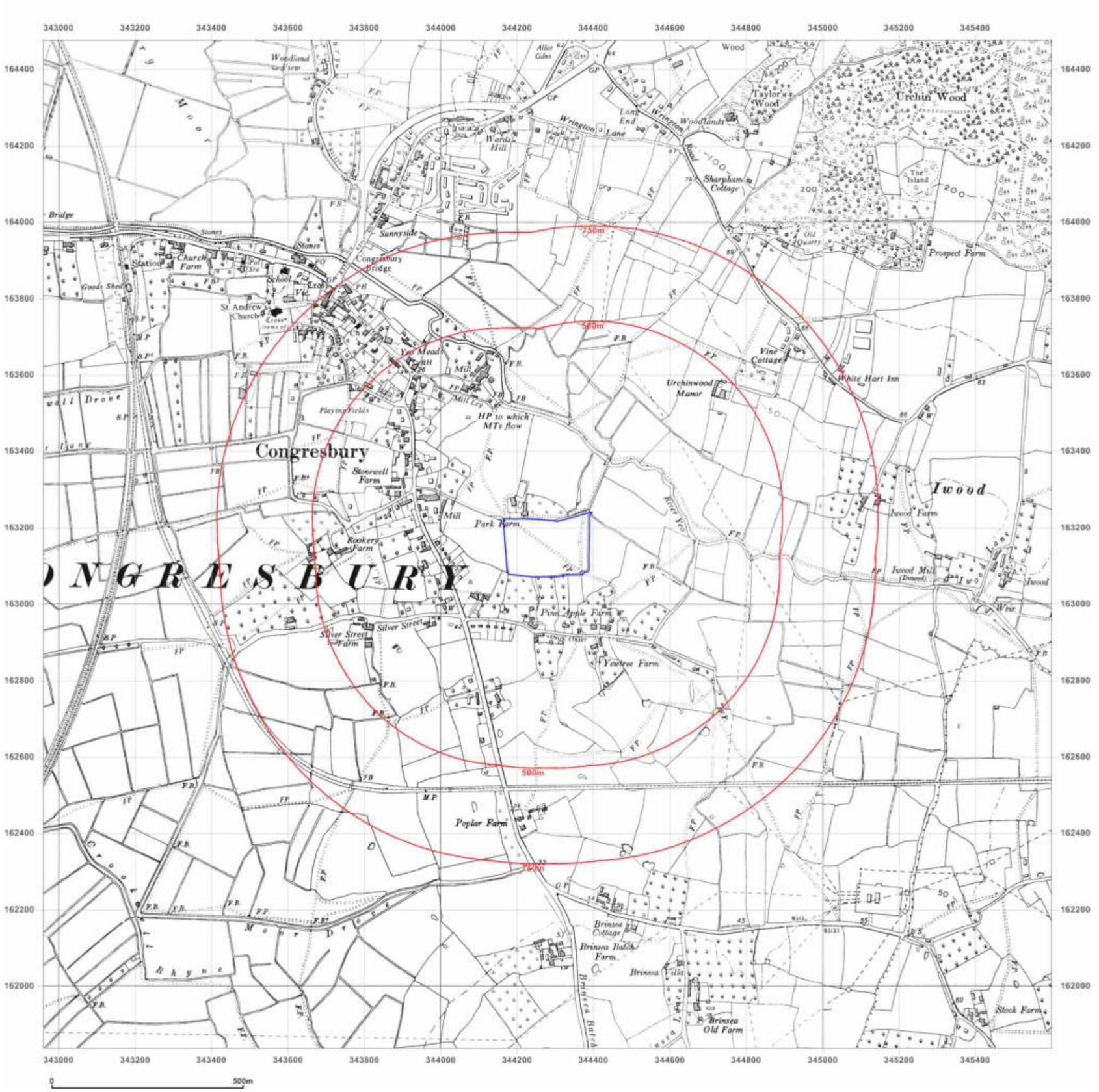

Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: Provisional
Map date: **1956-1960**
Scale: 1:10,560
Printed at: 1:10,560

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Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid

Map date: **1981**

Scale: 1:10,000

Printed at: 1:10,000

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Edition N/A
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Surveyed 1974
Revised 1981
Edition N/A
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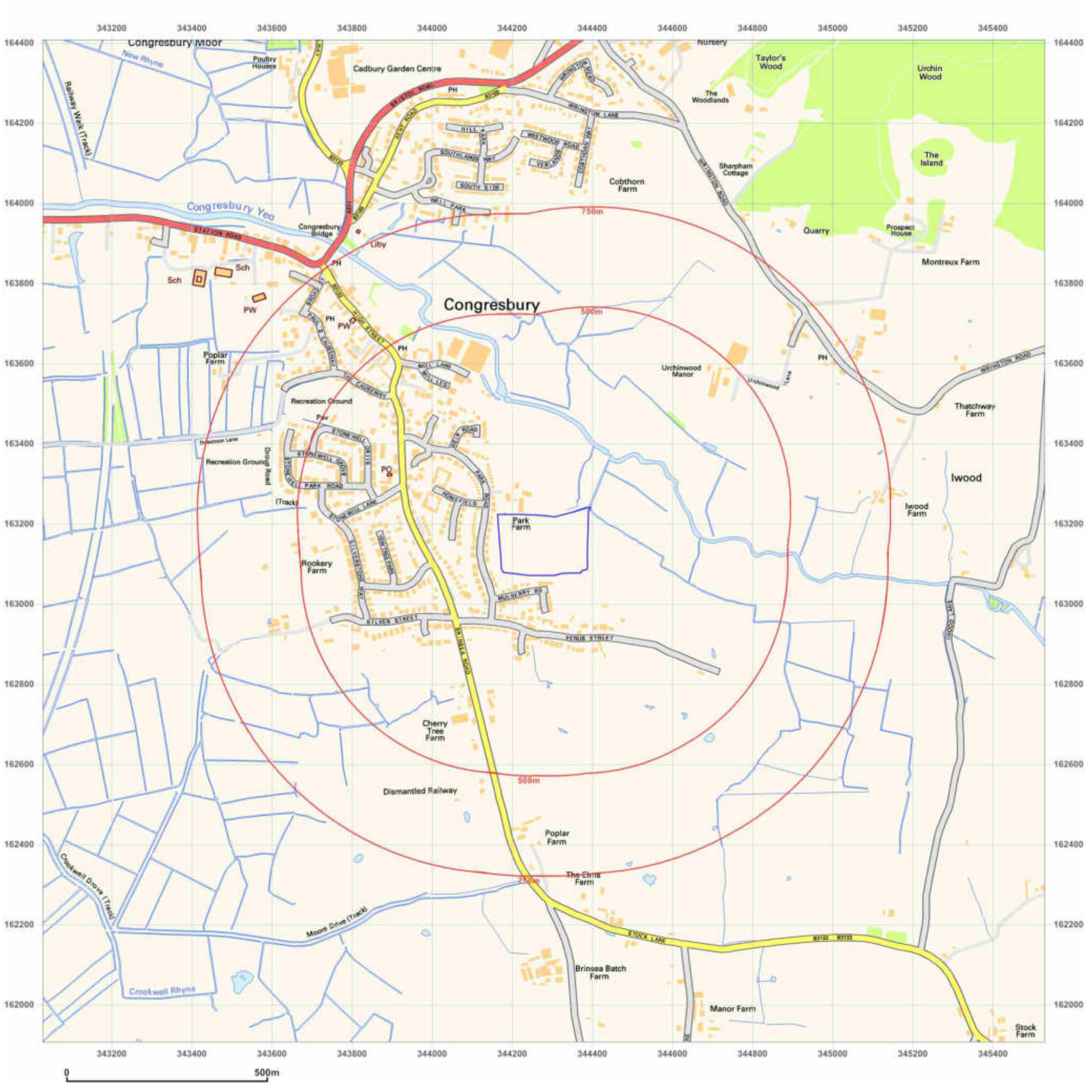

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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Production date: 05 October 2020

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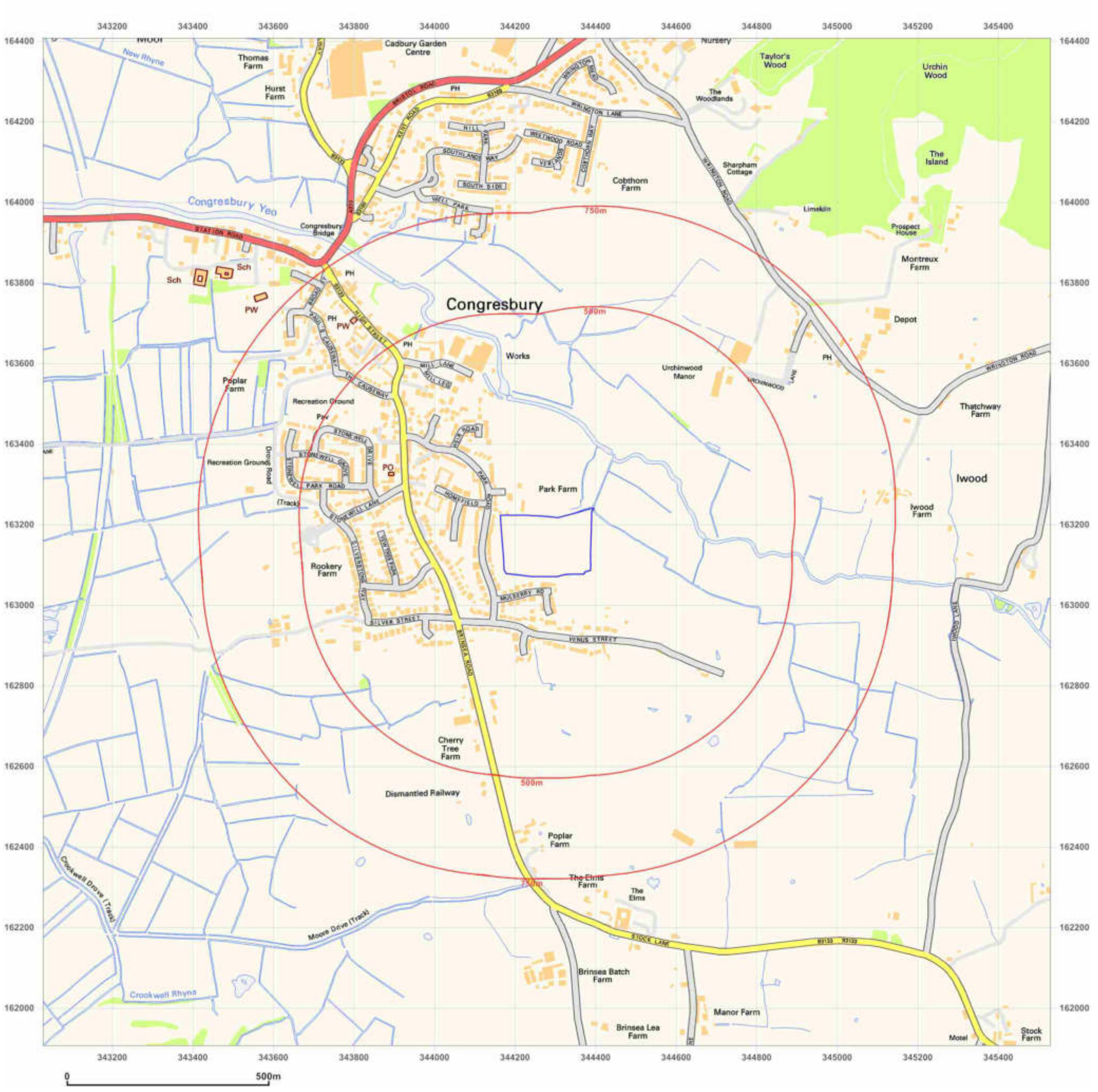

Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

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2010

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Production date: 05 October 2020

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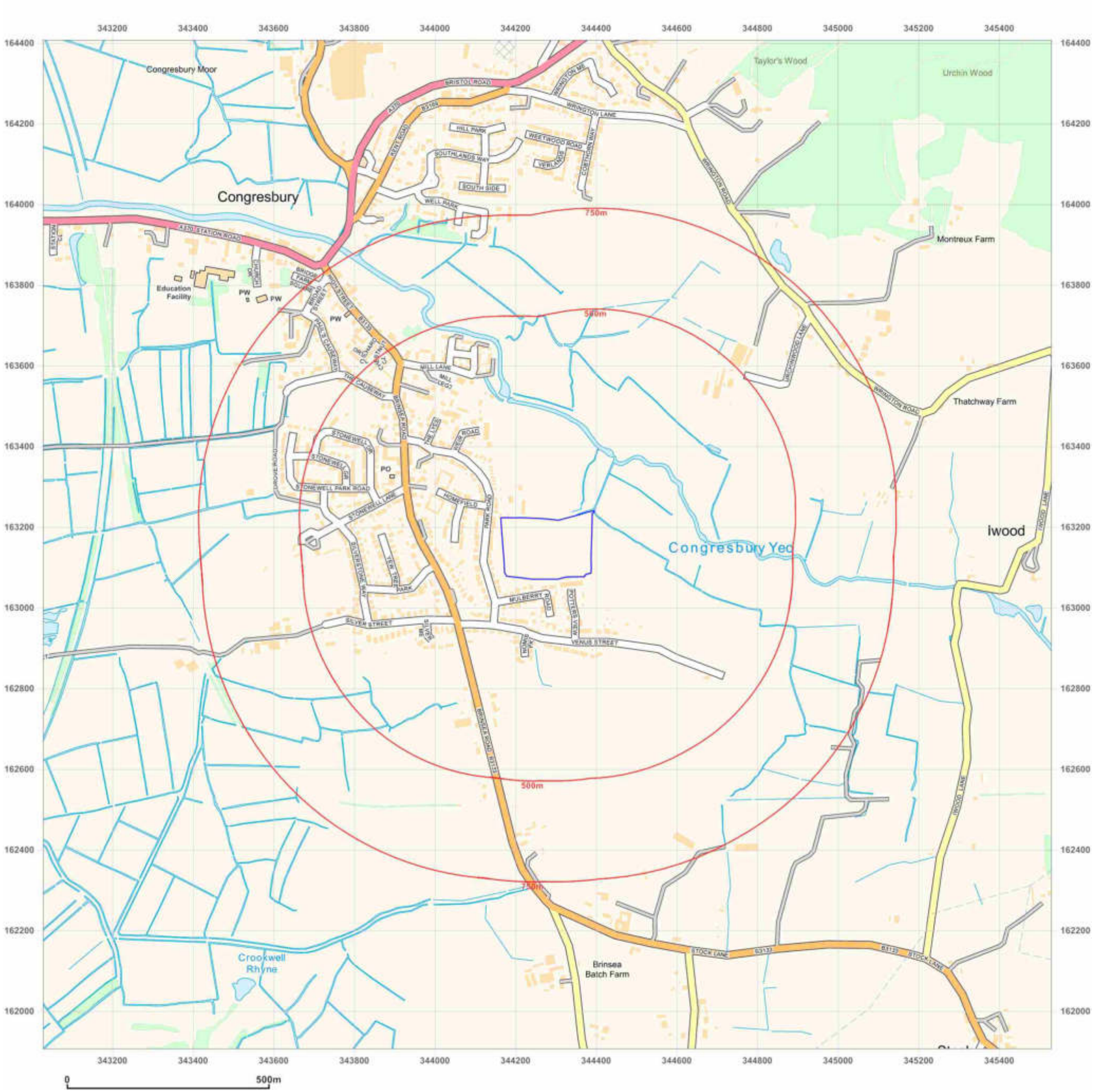

Groundsure INSIGHTS

Site Details:

PINEAPPLE PARK,
CONGRESBURY, BS49 5HD

Client Ref: P09548
Report Ref: GS-7125847
Grid Ref: 344279, 163156

Map Name: National Grid
Map date: **2020**
Scale: 1:10,000
Printed at: 1:10,000

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2020

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Production date: 05 October 2020

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C Geo-Enviro Insight Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

PINEAPPLE PARK, CONGRESBURY, BS49 5HD

Order Details

Date: 05/10/2020

Your ref: P09548

Our Ref: GS-7125848

Client: Clarkebond (UK) Ltd

Site Details

Location: 344276 163150

Area: 3.29 ha

Authority: North Somerset Council

Contact us with any questions at:
info@groundsure.com
08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	**1.1**	**Historical industrial land uses**	0	0	1	5	-
15	**1.2**	**Historical tanks**	0	0	1	0	-
15	**1.3**	**Historical energy features**	0	0	3	12	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
18	**2.1**	**Historical industrial land uses**	0	0	1	6	-
19	**2.2**	**Historical tanks**	0	0	1	0	-
19	**2.3**	**Historical energy features**	0	0	12	16	-
20	2.4	Historical petrol stations	0	0	0	0	-
21	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
22	3.1	Active or recent landfill	0	0	0	0	-
22	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
23	3.6	Licensed waste sites	0	0	0	0	-
23	**3.7**	**Waste exemptions**	0	0	0	8	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
25	**4.1**	**Recent industrial land uses**	0	0	3	-	-
26	4.2	Current or recent petrol stations	0	0	0	0	-
26	4.3	Electricity cables	0	0	0	0	-
26	4.4	Gas pipelines	0	0	0	0	-
26	4.5	Sites determined as Contaminated Land	0	0	0	0	-

26	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
27	4.7	Regulated explosive sites	0	0	0	0	-
27	4.8	Hazardous substance storage/usage	0	0	0	0	-
27	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
27	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
27	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
28	4.12	Radioactive Substance Authorisations	0	0	0	0	-
28	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
28	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
28	4.15	Pollutant release to public sewer	0	0	0	0	-
28	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
29	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	1	3	-
29	4.19	Pollution inventory substances	0	0	0	0	-
30	4.20	Pollution inventory waste transfers	0	0	0	0	-
30	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
31	**5.1**	**Superficial aquifer**	Identified (within 500m)				
33	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
34	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
35	**5.4**	**Groundwater vulnerability- soluble rock risk**	Identified (within 0m)				
36	5.5	Groundwater vulnerability- local information	None (within 0m)				
37	**5.6**	**Groundwater abstractions**	0	0	0	0	11
40	**5.7**	**Surface water abstractions**	0	0	0	0	8
42	5.8	Potable abstractions	0	0	0	0	0
42	5.9	Source Protection Zones	0	0	0	0	-
42	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
43	**6.1**	**Water Network (OS MasterMap)**	2	4	6	-	-

45	6.2	Surface water features	1	1	1	-	-
45	6.3	WFD Surface water body catchments	1	-	-	-	-
45	6.4	WFD Surface water bodies	0	0	1	-	-
46	6.5	WFD Groundwater bodies	2	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
47	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	High (within 50m)				
48	7.2	Historical Flood Events	1	0	1	-	-
48	7.3	Flood Defences	0	0	0	-	-
48	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
49	7.5	Flood Storage Areas	0	0	0	-	-
50	7.6	Flood Zone 2	Identified (within 50m)				
51	7.7	Flood Zone 3	Identified (within 50m)				
Page	Section	Surface water flooding					
52	8.1	Surface water flooding	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding					
54	9.1	Groundwater flooding	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
55	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	2
56	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
56	10.3	Special Areas of Conservation (SAC)	0	0	0	0	1
56	10.4	Special Protection Areas (SPA)	0	0	0	0	0
57	10.5	National Nature Reserves (NNR)	0	0	0	0	0
57	10.6	Local Nature Reserves (LNR)	0	0	0	0	3
57	10.7	Designated Ancient Woodland	0	0	0	0	9
58	10.8	Biosphere Reserves	0	0	0	0	0
58	10.9	Forest Parks	0	0	0	0	0
58	10.10	Marine Conservation Zones	0	0	0	0	0
59	10.11	Green Belt	0	0	0	0	1
59	10.12	Proposed Ramsar sites	0	0	0	0	0

59	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
59	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
60	10.15	Nitrate Sensitive Areas	0	0	0	0	0
60	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
61	**10.17**	**SSSI Impact Risk Zones**	2	-	-	-	-
63	**10.18**	**SSSI Units**	0	0	0	0	19
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
72	11.1	World Heritage Sites	0	0	0	-	-
73	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
73	11.3	National Parks	0	0	0	-	-
73	**11.4**	**Listed Buildings**	0	1	3	-	-
74	11.5	Conservation Areas	0	0	0	-	-
74	11.6	Scheduled Ancient Monuments	0	0	0	-	-
74	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
75	**12.1**	**Agricultural Land Classification**	Grade 3b (within 250m)				
76	12.2	Open Access Land	0	0	0	-	-
76	12.3	Tree Felling Licences	0	0	0	-	-
77	12.4	Environmental Stewardship Schemes	0	0	0	-	-
77	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
78	**13.1**	**Priority Habitat Inventory**	0	0	2	-	-
79	**13.2**	**Habitat Networks**	0	0	1	-	-
79	13.3	Open Mosaic Habitat	0	0	0	-	-
79	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
80	**14.1**	**10k Availability**	Identified (within 500m)				
81	14.2	Artificial and made ground (10k)	0	0	0	0	-
82	**14.3**	**Superficial geology (10k)**	2	1	0	1	-

83	14.4	Landslip (10k)	0	0	0	0	-
84	**14.5**	**Bedrock geology (10k)**	1	0	0	0	-
85	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
86	**15.1**	**50k Availability**	Identified (within 500m)				
87	15.2	Artificial and made ground (50k)	0	0	0	0	-
87	15.3	Artificial ground permeability (50k)	0	0	-	-	-
88	**15.4**	**Superficial geology (50k)**	2	1	0	2	-
89	**15.5**	**Superficial permeability (50k)**	Identified (within 50m)				
89	15.6	Landslip (50k)	0	0	0	0	-
89	15.7	Landslip permeability (50k)	None (within 50m)				
90	**15.8**	**Bedrock geology (50k)**	1	0	0	1	-
91	**15.9**	**Bedrock permeability (50k)**	Identified (within 50m)				
91	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
92	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
93	**17.1**	**Shrink swell clays**	Low (within 50m)				
95	**17.2**	**Running sands**	Moderate (within 50m)				
97	**17.3**	**Compressible deposits**	Moderate (within 50m)				
99	**17.4**	**Collapsible deposits**	Very low (within 50m)				
100	**17.5**	**Landslides**	Very low (within 50m)				
101	**17.6**	**Ground dissolution of soluble rocks**	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
103	18.1	Natural cavities	0	0	0	0	-
104	18.2	BritPits	0	0	0	0	-
104	**18.3**	**Surface ground workings**	0	1	2	-	-
104	18.4	Underground workings	0	0	0	0	0
104	18.5	Historical Mineral Planning Areas	0	0	0	0	-

105	**18.6**	**Non-coal mining**	0	0	0	0	4
105	18.7	Mining cavities	0	0	0	0	0
106	18.8	JPB mining areas	None (within 0m)				
106	18.9	Coal mining	None (within 0m)				
106	18.10	Brine areas	None (within 0m)				
106	18.11	Gypsum areas	None (within 0m)				
106	18.12	Tin mining	None (within 0m)				
107	18.13	Clay mining	None (within 0m)				

Page	Section	Radon					
108	**19.1**	**Radon**	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
109	**20.1**	**BGS Estimated Background Soil Chemistry**	3	1	-	-	-
109	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
110	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
111	21.1	Underground railways (London)	0	0	0	-	-
111	21.2	Underground railways (Non-London)	0	0	0	-	-
111	21.3	Railway tunnels	0	0	0	-	-
111	21.4	Historical railway and tunnel features	0	0	0	-	-
111	21.5	Royal Mail tunnels	0	0	0	-	-
112	21.6	Historical railways	0	0	0	-	-
112	21.7	Railways	0	0	0	-	-
112	21.8	Crossrail 1	0	0	0	0	-
112	21.9	Crossrail 2	0	0	0	0	-
112	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 19/06/2017

Site Area: 3.29ha

Recent site history - 2014 aerial photograph

Capture Date: 09/09/2014

Site Area: 3.29ha

Recent site history - 2013 aerial photograph

Capture Date: 04/09/2013

Site Area: 3.29ha

Recent site history - 2009 aerial photograph

Capture Date: 01/06/2009

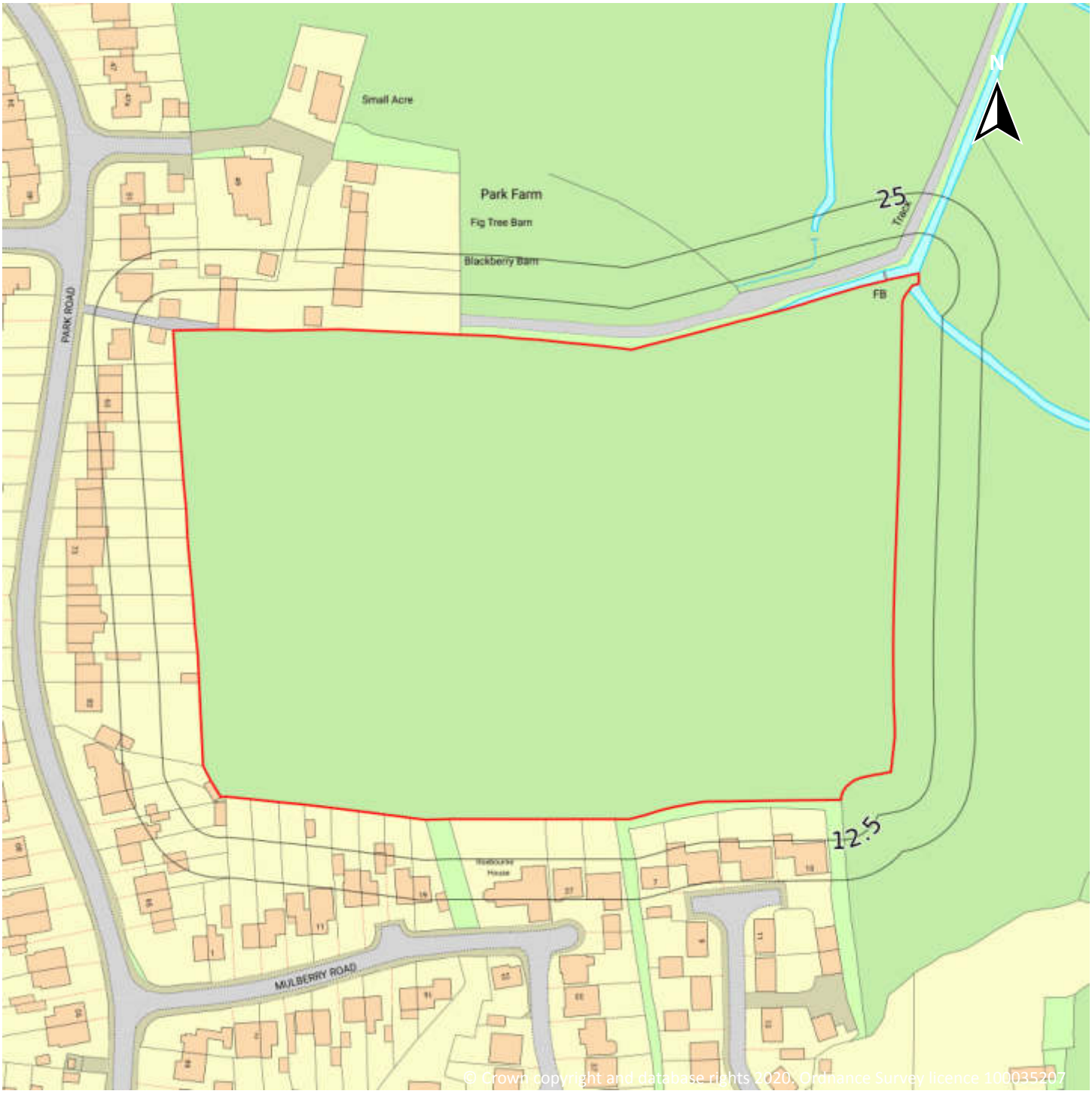
Site Area: 3.29ha

Recent site history - 1999 aerial photograph

Capture Date: 11/07/1999

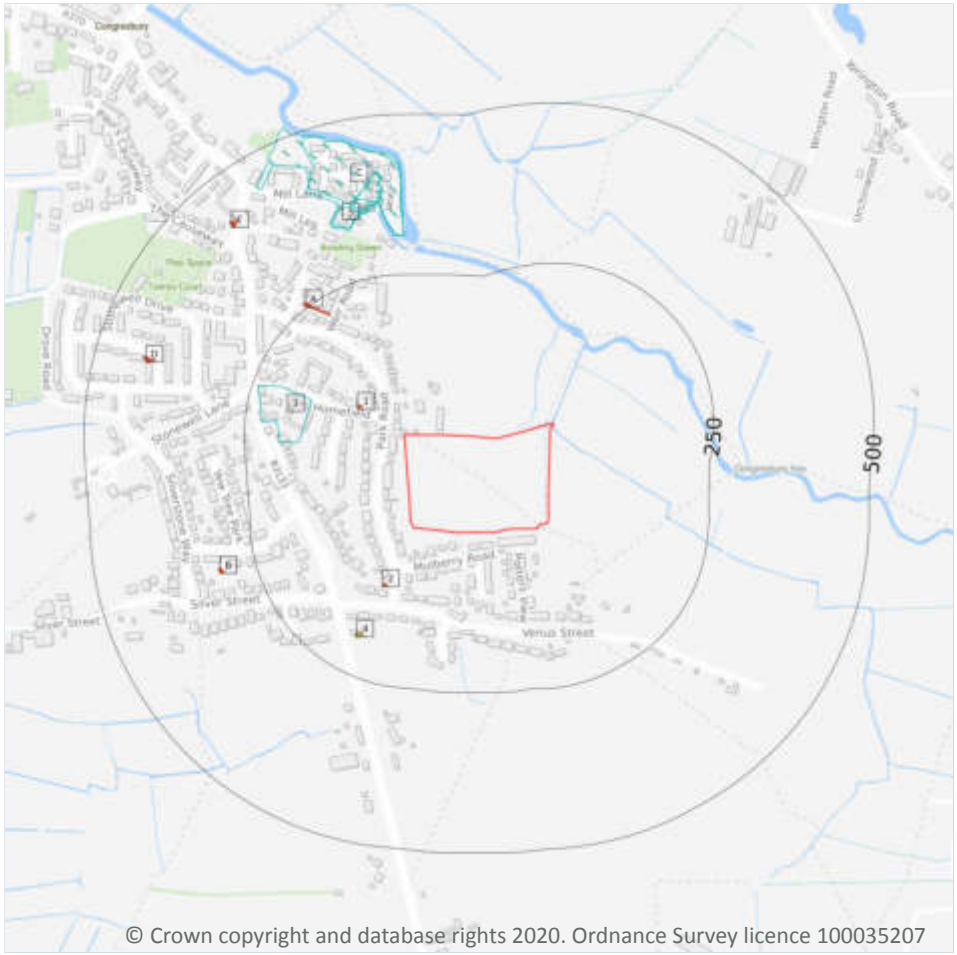
Site Area: 3.29ha

OS MasterMap site plan



Site Area: 3.29ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	6

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

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
3	155m W	Unspecified Mill	1960	1165952

ID	Location	Land use	Dates present	Group ID
C	309m N	Unspecified Mill	1960	1165951
C	311m N	Unspecified Works	1979	1178796
5	329m N	Corn Mill	1884	1174960
C	349m N	Flour Mill	1904	1174547
C	365m N	Corn Mill	1884	1193363

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m **1**

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 14**

ID	Location	Land use	Dates present	Group ID
4	181m SW	Tanks	1936	170202

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m **15**

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'.

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
1	78m NW	Electricity Substation	1974 - 1987	110971
2	97m SW	Electricity Substation	1974 - 1992	111002

ID	Location	Land use	Dates present	Group ID
A	220m NW	Electricity Substation	1987	111238
A	251m NW	Electricity Substation	1974	113108
B	301m W	Electricity Substation	1974	109964
B	302m W	Electricity Substation	1995 - 1997	113293
B	304m W	Electricity Substation	1986	96902
D	406m W	Electricity Substation	1974	100508
D	415m W	Electricity Substation	1997	101348
D	415m W	Electricity Substation	1996	102105
D	415m W	Electricity Substation	1995	102106
E	418m NW	Electricity Substation	1995 - 1997	102734
D	421m W	Electricity Substation	1986	101262
E	421m NW	Electricity Substation	1974	96904
E	427m NW	Electricity Substation	1986	96903

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.

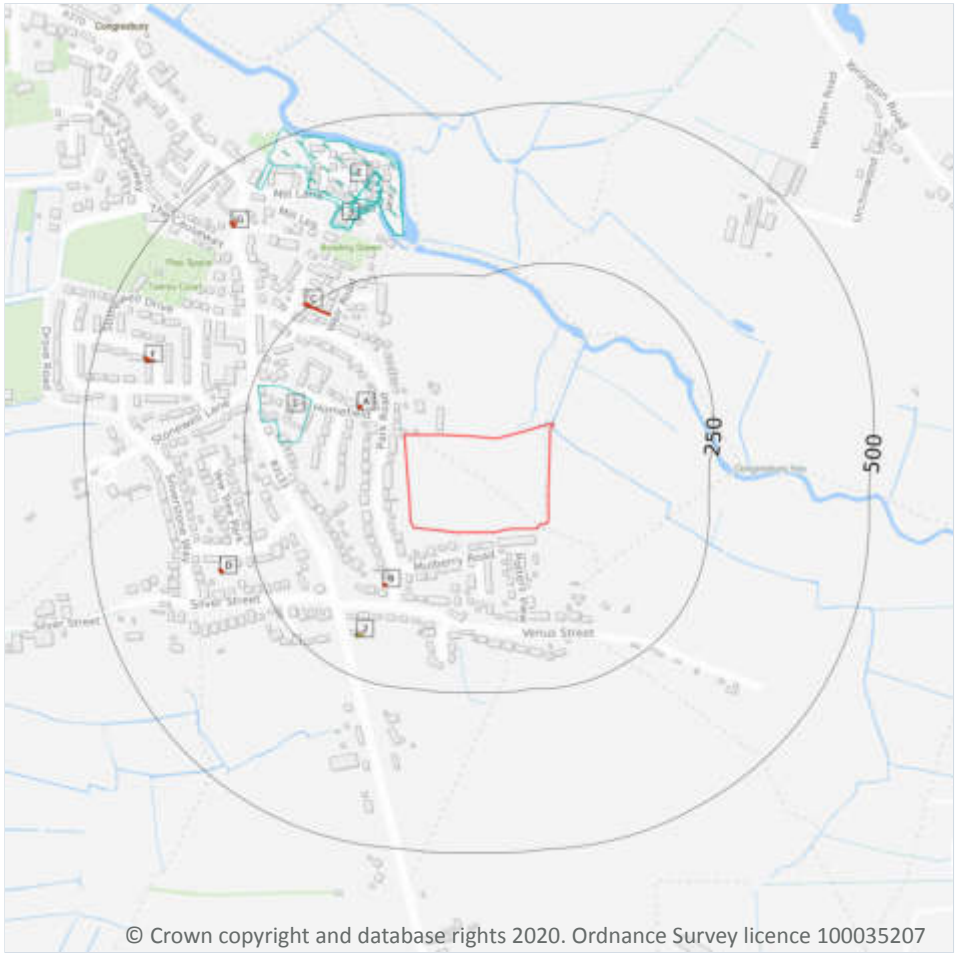
1.6 Historical military land

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



2.1 Historical industrial land uses

Records within 500m	7

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

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
1	155m W	Unspecified Mill	1960	1165952
E	309m N	Unspecified Mill	1960	1165951
E	311m N	Unspecified Works	1979	1178796

ID	Location	Land Use	Date	Group ID
3	329m N	Corn Mill	1884	1174960
E	349m N	Flour Mill	1904	1174547
E	365m N	Corn Mill	1884	1193363
E	365m N	Corn Mill	1884	1193363

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**1**

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

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
2	181m SW	Tanks	1936	170202

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**28**

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

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
A	78m NW	Electricity Substation	1974	110971
A	79m NW	Electricity Substation	1987	110971
A	79m NW	Electricity Substation	1987	110971
A	79m NW	Electricity Substation	1987	110971
B	97m SW	Electricity Substation	1974	111002
B	98m SW	Electricity Substation	1992	111002

ID	Location	Land Use	Date	Group ID
B	98m SW	Electricity Substation	1990	111002
B	98m SW	Electricity Substation	1990	111002
B	98m SW	Electricity Substation	1990	111002
B	98m SW	Electricity Substation	1990	111002
C	220m NW	Electricity Substation	1987	111238
C	220m NW	Electricity Substation	1987	111238
C	251m NW	Electricity Substation	1974	113108
D	301m W	Electricity Substation	1974	109964
D	302m W	Electricity Substation	1996	113293
D	302m W	Electricity Substation	1997	113293
D	302m W	Electricity Substation	1995	113293
D	304m W	Electricity Substation	1986	96902
F	406m W	Electricity Substation	1974	100508
F	415m W	Electricity Substation	1996	102105
F	415m W	Electricity Substation	1997	101348
F	415m W	Electricity Substation	1995	102106
G	418m NW	Electricity Substation	1996	102734
G	418m NW	Electricity Substation	1997	102734
G	418m NW	Electricity Substation	1995	102734
F	421m W	Electricity Substation	1986	101262
G	421m NW	Electricity Substation	1974	96904
G	427m NW	Electricity Substation	1986	96903

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.

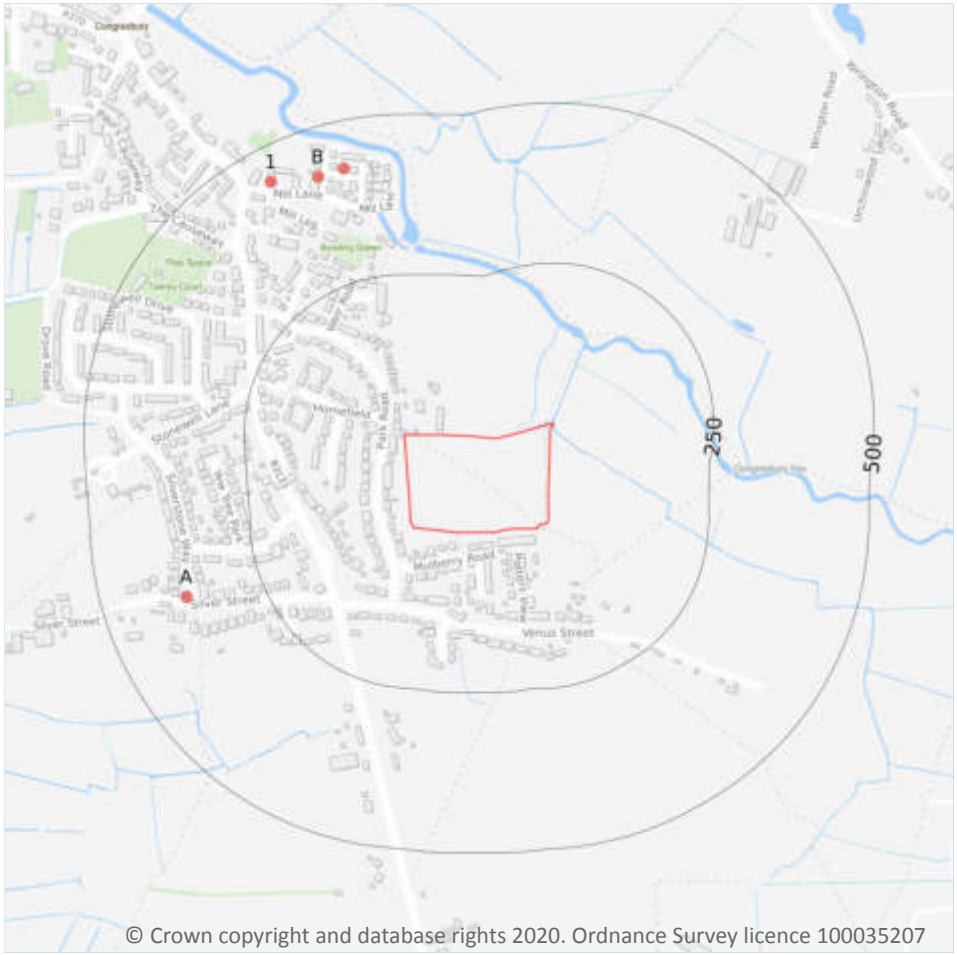
2.5 Historical garages

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)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	0

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

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

3.7 Waste exemptions

Records within 500m	8

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.

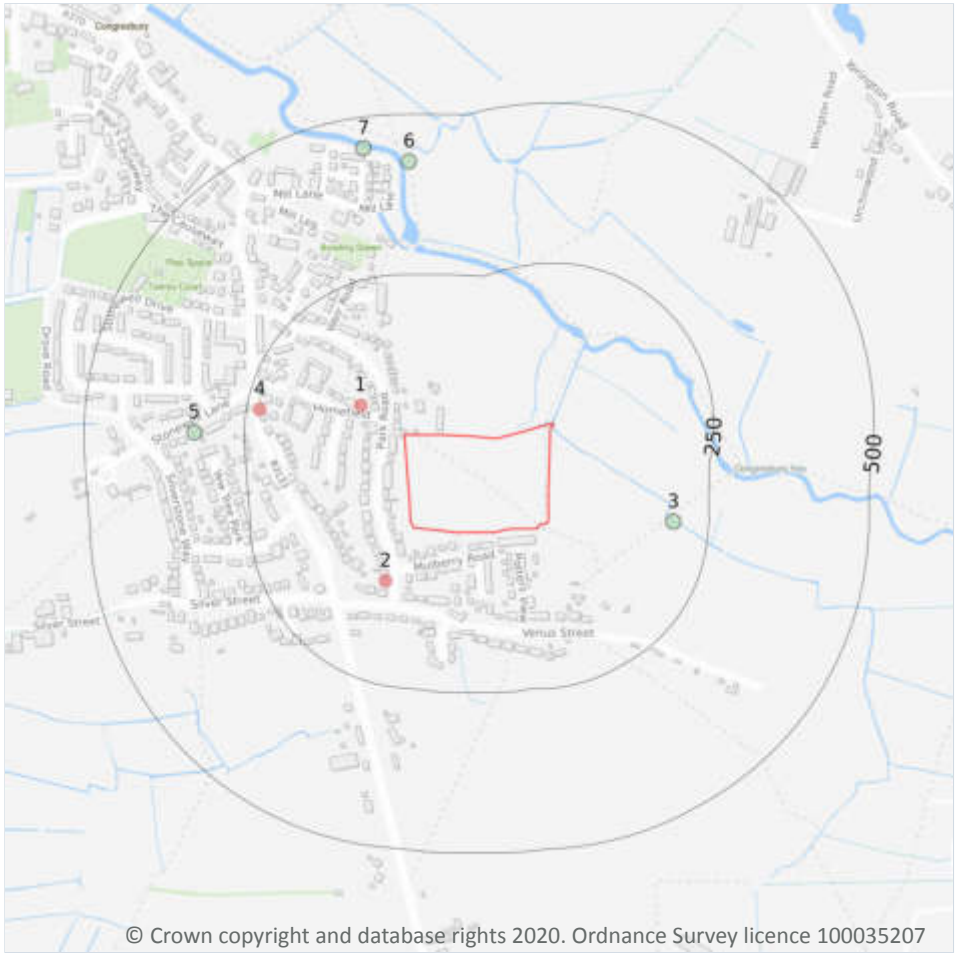
Features are displayed on the Waste and landfill map on **page 22**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	370m W	Valley view buisness park broad street icklesham east sussex tn36 4as	EPR/CF0106BQ/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers

ID	Location	Site	Reference	Category	Sub-Category	Description
A	370m W	Valley view buisness park broad street icklesham east sussex tn36 4as	EPR/CF0106BQ/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
A	370m W	Valley view buisness park broad street icklesham east sussex tn36 4as	EPR/CF0106BQ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
A	370m W	Valley view buisness park broad street icklesham east sussex tn36 4as	EPR/CF0106BQ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
A	370m W	Valley view buisness park broad street icklesham east sussex tn36 4as	EPR/CF0106BQ/A001	Using waste exemption	Non-Agricultural Waste Only	Use of baled end-of-life tyres in construction
B	424m N	Flint Construction, The Willows, Off Congers Way, Off Mill Lane, Congresbury , North Somerset, BS49 5BF	WEX224271	Using waste exemption	Not on a farm	Use of waste in construction
B	426m N	Avtar Construction (C/O Persimmon Homes) Congresbury North somerset BS49 4JD	EPR/DE5781AC/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
1	446m NW	1 YEO COURT, MILL LANE, CONGRESBURY, BRISTOL, BS49 5HZ	WEX144241	Using waste exemption	Not on a farm	Use of waste in construction

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

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	3

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 25**

ID	Location	Company	Address	Activity	Category
1	83m NW	Electricity Sub Station	Somerset, BS49	Electrical Features	Infrastructure and Facilities
2	94m SW	Electricity Sub Station	Somerset, BS49	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
4	230m W	Sawmills	Somerset, BS49	Wood Products Including Charcoal, Paper, Card and Board	Industrial Products

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	4

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

Features are displayed on the Current industrial land use map on **page 25**

ID	Location	Details	
3	194m E	Incident Date: 21/01/2002 Incident Identification: 53704 Pollutant: Oils and Fuel Pollutant Description: Insulating and Cable Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
5	328m W	Incident Date: 17/10/2002 Incident Identification: 115275 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
6	426m N	Incident Date: 22/11/2001 Incident Identification: 44312 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
7	451m N	Incident Date: 23/09/2004 Incident Identification: 267978 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 2 (Significant) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)

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.

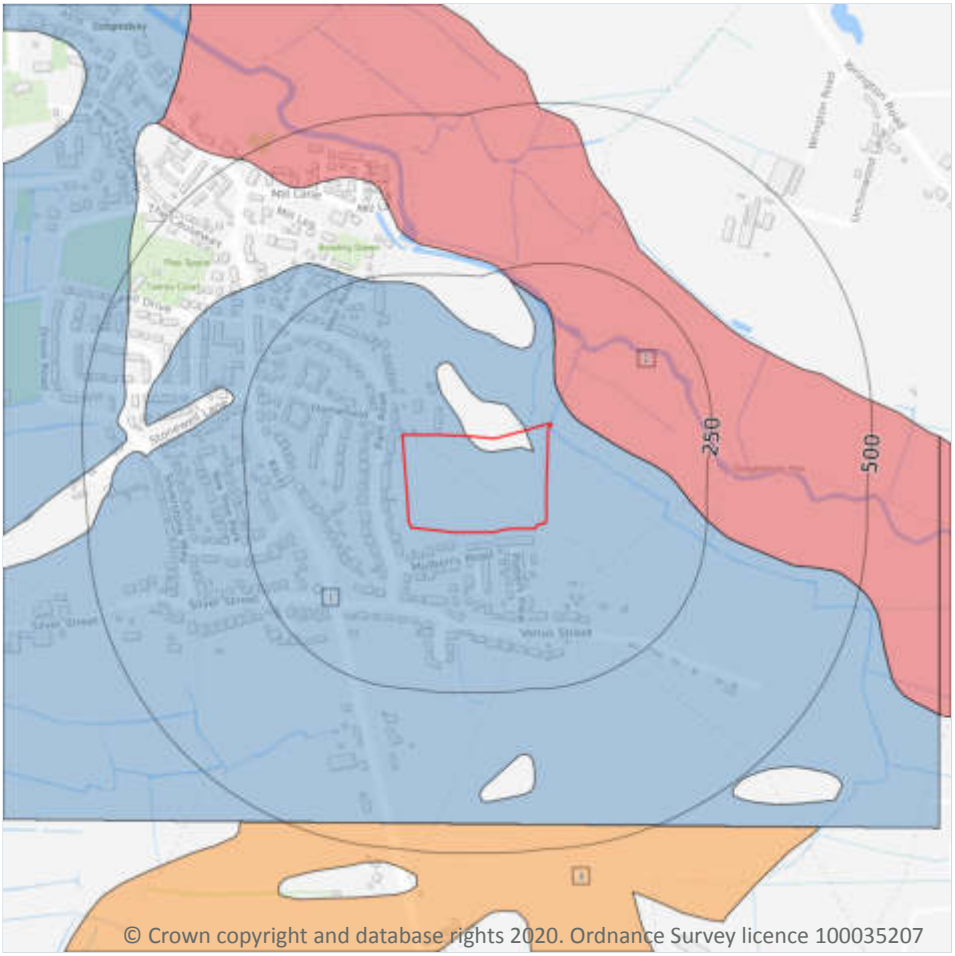
4.21 Pollution inventory radioactive waste

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	3

Aquifer status of groundwater held within superficial geology.

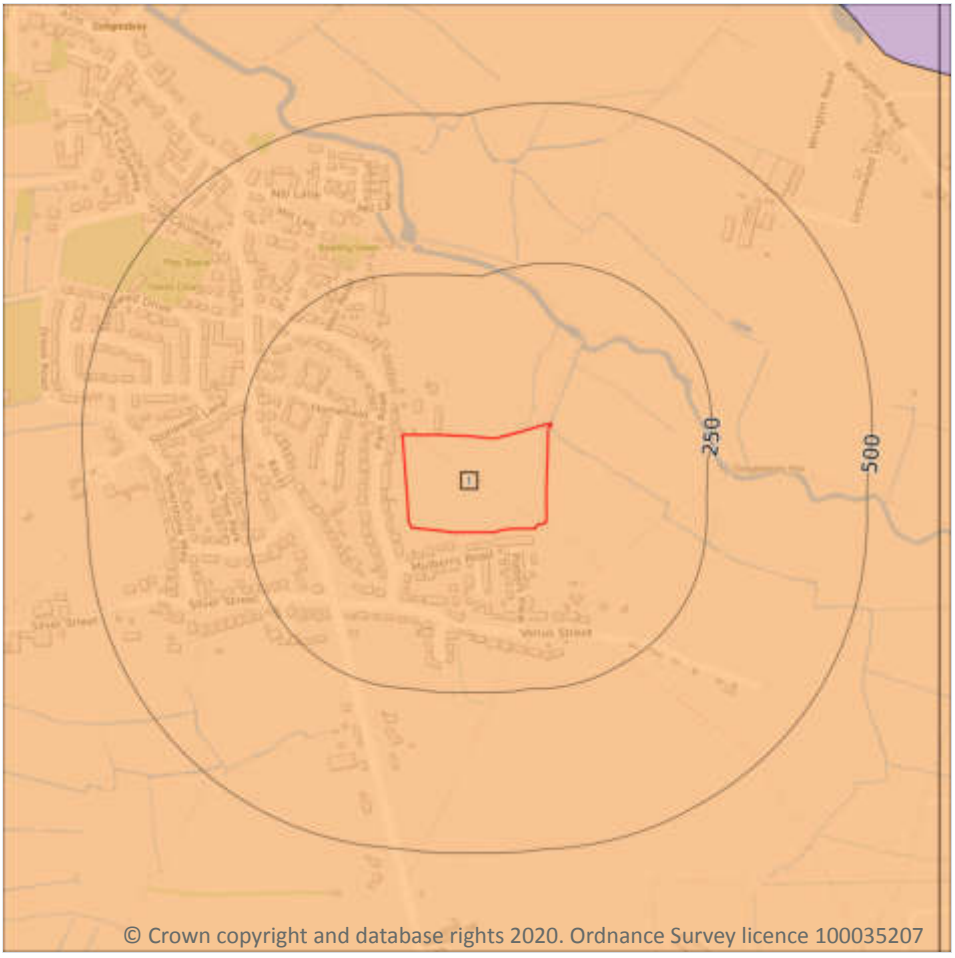
Features are displayed on the Hydrogeology map on **page 31**

ID	Location	Designation	Description
1	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
2	34m NE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	453m S	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-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	1

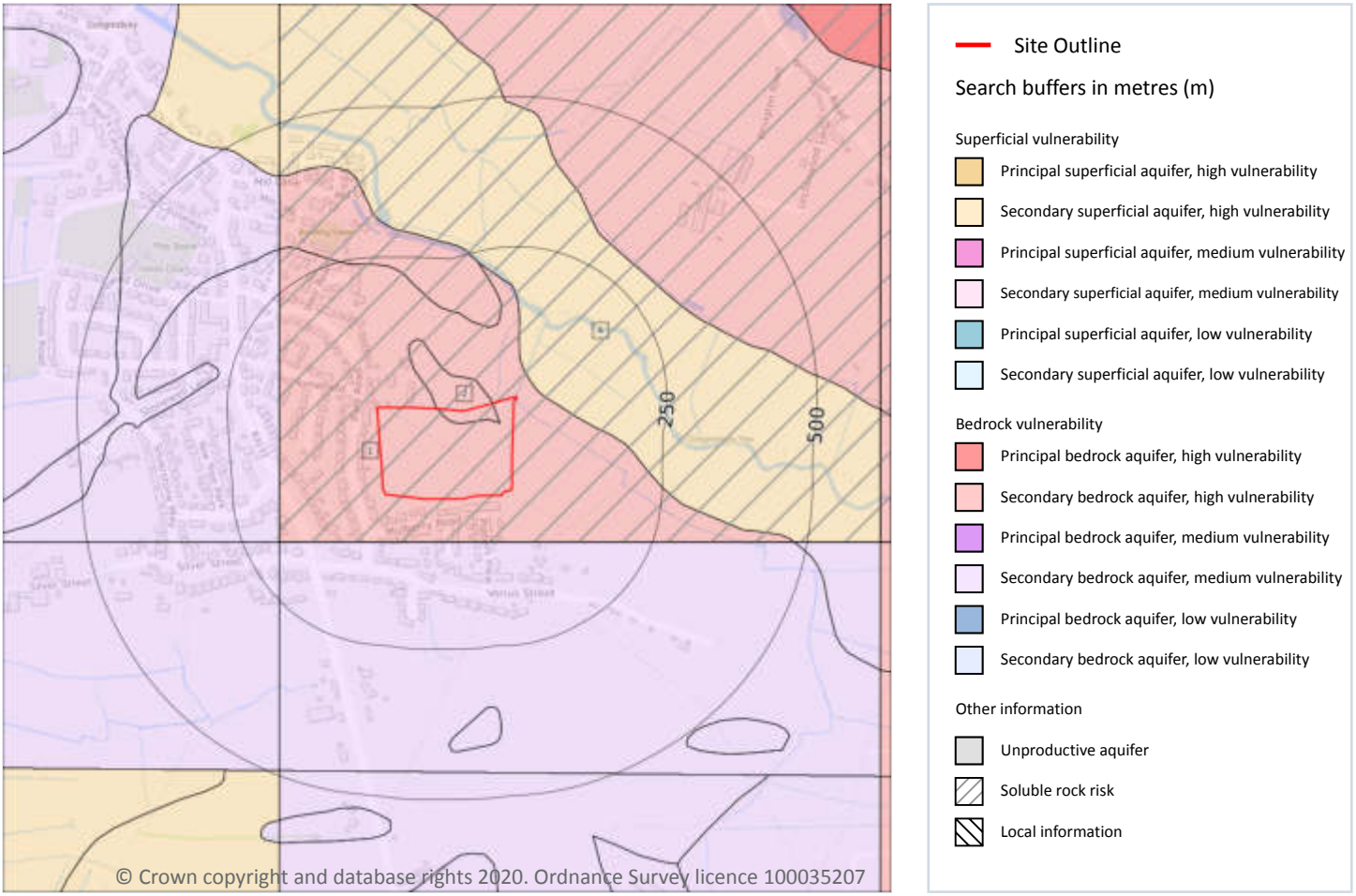
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 33**

ID	Location	Designation	Description
1	On site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering. These are generally the water-bearing parts of the former non-aquifers

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

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	3

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

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

Features are displayed on the Groundwater vulnerability map on **page 34**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Unproductive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year**	**Vulnerability: Unproductive Aquifer type: Unproductive Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures**
2	**On site**	**Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures**
A	34m NE	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	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	**1**

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	**Significant soluble rocks are likely to be present. Low possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow.**	**3.0%**

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

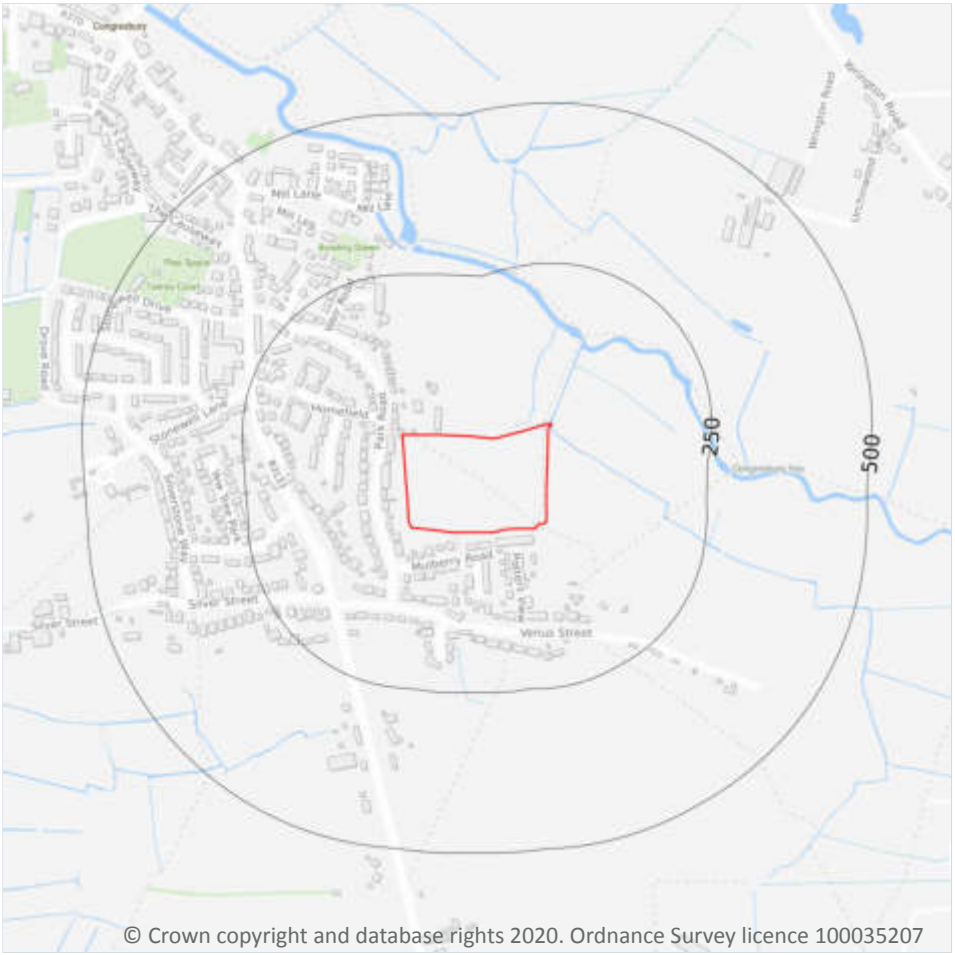
5.5 Groundwater vulnerability- local information

Records on site	0

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	11

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 37**

ID	Location	Details	
-	1121m NW	Status: Historical Licence No: 16/52/014/G/039 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: BOREHOLE CONGRESBURY Data Type: Point Name: Garden & Leisure Group Easting: 343690 Northing: 164240	Annual Volume (m^3): 12330 Max Daily Volume (m^3): 100 Original Application No: - Original Start Date: 04/03/1978 Expiry Date: 31/03/2013 Issue No: 102 Version Start Date: 01/04/2008 Version End Date: -
-	1122m NW	Status: Active Licence No: SW/052/0014/003 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: BOREHOLE CONGRESBURY Data Type: Point Name: Blue Diamond UK Limited Easting: 343692 Northing: 164243	Annual Volume (m^3): 12,330 Max Daily Volume (m^3): 100 Original Application No: - Original Start Date: 01/04/2013 Expiry Date: 31/03/2025 Issue No: 3 Version Start Date: 29/08/2019 Version End Date: -
-	1150m N	Status: Historical Licence No: 16/52/014/G/053 Details: Horticultural Watering Direct Source: Ground Water - Fresh Point: MIDDLECOMBE NURSERY BOREHOLE Data Type: Point Name: North Easting: 344560 Northing: 164380	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 10/05/2002 Expiry Date: 31/03/2013 Issue No: 101 Version Start Date: 10/05/2002 Version End Date: -
-	1150m N	Status: Historical Licence No: 16/52/014/G/053 Details: Spray Irrigation - Direct Direct Source: Ground Water - Fresh Point: MIDDLECOMBE NURSERY BOREHOLE Data Type: Point Name: North Easting: 344560 Northing: 164380	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 10/05/2002 Expiry Date: 31/03/2013 Issue No: 101 Version Start Date: 10/05/2002 Version End Date: -
-	1830m SE	Status: Historical Licence No: 16/52/014/G/024 Details: Process Water Direct Source: Ground Water - Fresh Point: BOREHOLE 6 AT MIDDLEBROOK MUSHROOMS Data Type: Point Name: Middlebrook Mushrooms Ltd Easting: 345300 Northing: 161500	Annual Volume (m^3): 118000 Max Daily Volume (m^3): 348 Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -

ID	Location	Details	
-	1830m SE	Status: Historical Licence No: 16/52/014/G/024 Details: Process water Direct Source: Ground Water - Fresh Point: MIDDLEBROOK 6 Data Type: Point Name: Middlebrook Mushrooms Ltd Easting: 345300 Northing: 161500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -
-	1871m SE	Status: Historical Licence No: 16/52/014/G/024 Details: Process water Direct Source: Ground Water - Fresh Point: MIDDLEBROOK Data Type: Poly4 Name: Middlebrook Mushrooms Ltd Easting: 345200 Northing: 160700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -
-	1871m SE	Status: Historical Licence No: 16/52/014/G/024 Details: Process water Direct Source: Ground Water - Fresh Point: MIDDLEBROOK 3 Data Type: Point Name: Middlebrook Mushrooms Ltd Easting: 345200 Northing: 161400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -
-	1871m SE	Status: Historical Licence No: 16/52/014/G/024 Details: Process Water Direct Source: Ground Water - Fresh Point: BOREHOLE 3 AT MIDDLEBROOK MUSHROOMS Data Type: Point Name: Middlebrook Mushrooms Ltd Easting: 345200 Northing: 161400	Annual Volume (m^3): 118000 Max Daily Volume (m^3): 348 Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -
-	1961m SE	Status: Historical Licence No: 16/52/014/G/024 Details: Process water Direct Source: Ground Water - Fresh Point: MIDDLEBROOK 2 Data Type: Point Name: Middlebrook Mushrooms Ltd Easting: 345200 Northing: 161300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -

ID	Location	Details	
-	1961m SE	Status: Historical Licence No: 16/52/014/G/024 Details: Process Water Direct Source: Ground Water - Fresh Point: BOREHOLE 2 AT MIDDLEBROOK MUSHROOMS Data Type: Point Name: Middlebrook Mushrooms Ltd Easting: 345200 Northing: 161300	Annual Volume (m^3): 118000 Max Daily Volume (m^3): 348 Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**8**

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 37**

ID	Location	Details	
-	1058m E	Status: Active Licence No: 16/52/014/S/054 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Surface Water - Fresh Point: RIVER CONGRESBURY YEO AT IWOOD MANOR Data Type: Point Name: Mr & Mrs K Lloyd Easting: 345441 Northing: 163000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/06/2007 Expiry Date: 31/03/2025 Issue No: 102 Version Start Date: 29/04/2009 Version End Date: -
-	1058m E	Status: Active Licence No: 16/52/014/S/054 Details: Hydroelectric Power Generation Direct Source: Surface Water - Fresh Point: RIVER CONGRESBURY YEO AT IWOOD MANOR Data Type: Point Name: Mr & Mrs K Lloyd Easting: 345441 Northing: 163000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/06/2007 Expiry Date: 31/03/2025 Issue No: 102 Version Start Date: 29/04/2009 Version End Date: -

ID	Location	Details	
-	1302m W	Status: Active Licence No: 16/52/014/S/048 Details: Make-Up Or Top Up Water Direct Source: Surface Water - Fresh Point: UNNAMED TRIBUTARY OF THE CONGRESBURY YEO Data Type: Point Name: Patch Easting: 342870 Northing: 163050	Annual Volume (m^3): 31,536 Max Daily Volume (m^3): 86.40 Original Application No: - Original Start Date: 19/04/1999 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1447m S	Status: Historical Licence No: 16/52/014/S/047 Details: Spray Irrigation - Direct Direct Source: Surface Water - Fresh Point: CROOKWELL RHYNE Data Type: Point Name: Mendip Spring Golf Club Easting: 343890 Northing: 161660	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/07/1992 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1999 Version End Date: -
-	1460m SW	Status: Active Licence No: SW/052/0014/006 Details: Spray Irrigation - Storage Direct Source: Surface Water - Fresh Point: LOWER LAKES (POINT C) Data Type: Point Name: Mendip Spring Golf Club Easting: 343440 Northing: 161818	Annual Volume (m^3): 21,000 Max Daily Volume (m^3): 120 Original Application No: - Original Start Date: 23/01/2015 Expiry Date: 31/03/2025 Issue No: 1 Version Start Date: 23/01/2015 Version End Date: -
-	1467m SW	Status: Historical Licence No: 16/52/014/S/047 Details: Spray Irrigation - Direct Direct Source: Surface Water - Fresh Point: LOWER LAKES (POINT C) Data Type: Point Name: Mendip Spring Golf Club Easting: 343440 Northing: 161810	Annual Volume (m^3): 21000 Max Daily Volume (m^3): 120 Original Application No: - Original Start Date: 01/07/1992 Expiry Date: - Issue No: 102 Version Start Date: 24/05/2002 Version End Date: -
-	1468m S	Status: Historical Licence No: 16/52/014/S/047 Details: Spray Irrigation - Direct Direct Source: Surface Water - Fresh Point: BRINSEA LAKES (POINT B) Data Type: Point Name: Mendip Spring Golf Club Easting: 343880 Northing: 161640	Annual Volume (m^3): 21000 Max Daily Volume (m^3): 120 Original Application No: - Original Start Date: 01/07/1992 Expiry Date: - Issue No: 102 Version Start Date: 24/05/2002 Version End Date: -

ID	Location	Details	
-	1492m S	Status: Historical Licence No: 16/52/014/S/047 Details: Transfer Between Sources (Pre Water Act 2003) Direct Source: Surface Water - Fresh Point: TRIB OF CROOKWELL RHYNE (POINT A) Data Type: Point Name: Mendip Spring Golf Club Easting: 344190 Northing: 161580	Annual Volume (m^3): 21000 Max Daily Volume (m^3): 120 Original Application No: - Original Start Date: 01/07/1992 Expiry Date: - Issue No: 102 Version Start Date: 24/05/2002 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	**0**

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.

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.

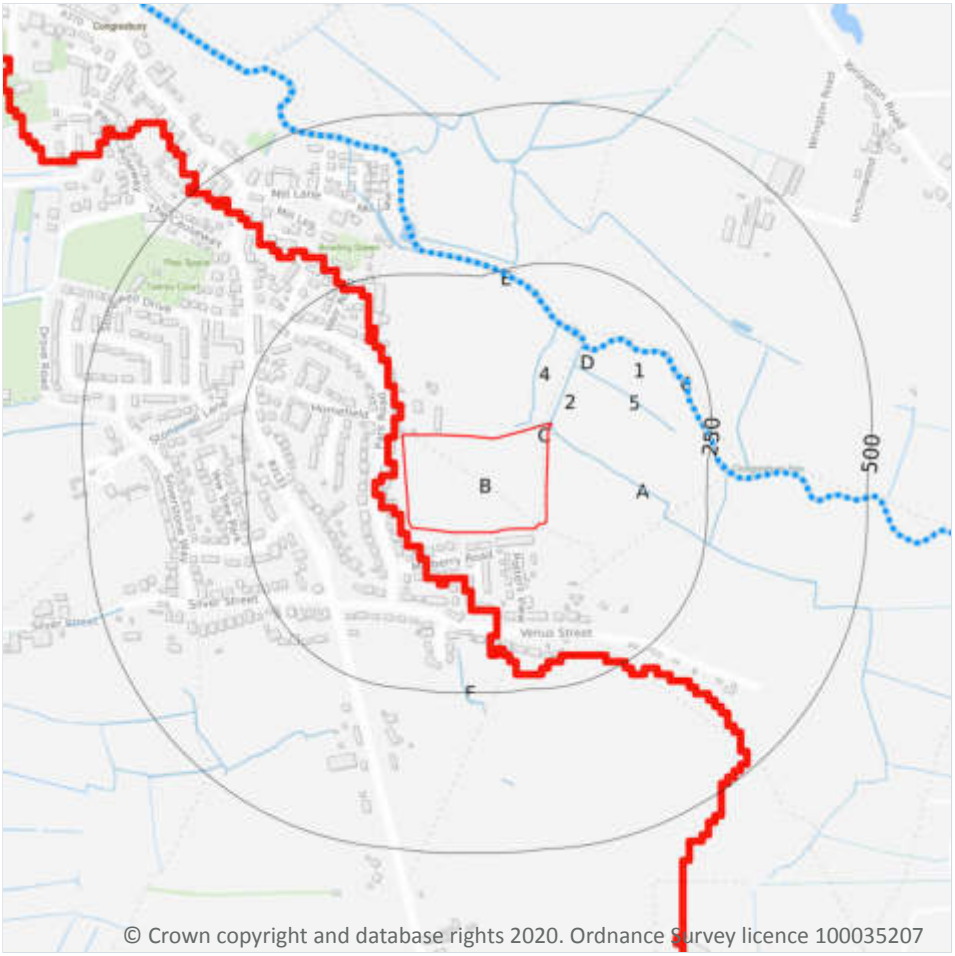
5.10 Source Protection Zones (confined aquifer)

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	**12**

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 43**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	**On site**	**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	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
2	1m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	10m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	18m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
4	20m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	97m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	97m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	129m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Congresbury Yeo
D	131m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Congresbury Yeo
E	156m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Congresbury Yeo
F	188m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	3

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 43**

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 43**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	**On site**	**River WB catchment**	**Yeo - source to conf Congresbury Yeo**	**GB109052021640**	**North Somerset Streams**	**Avon Bristol and North Somerset Streams**

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 43**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
7	130m NE	River	Yeo - source to conf Congresbury Yeo	GB109052021640	Moderate	Good	Moderate	2016

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

6.5 WFD Groundwater bodies

Records on site	2

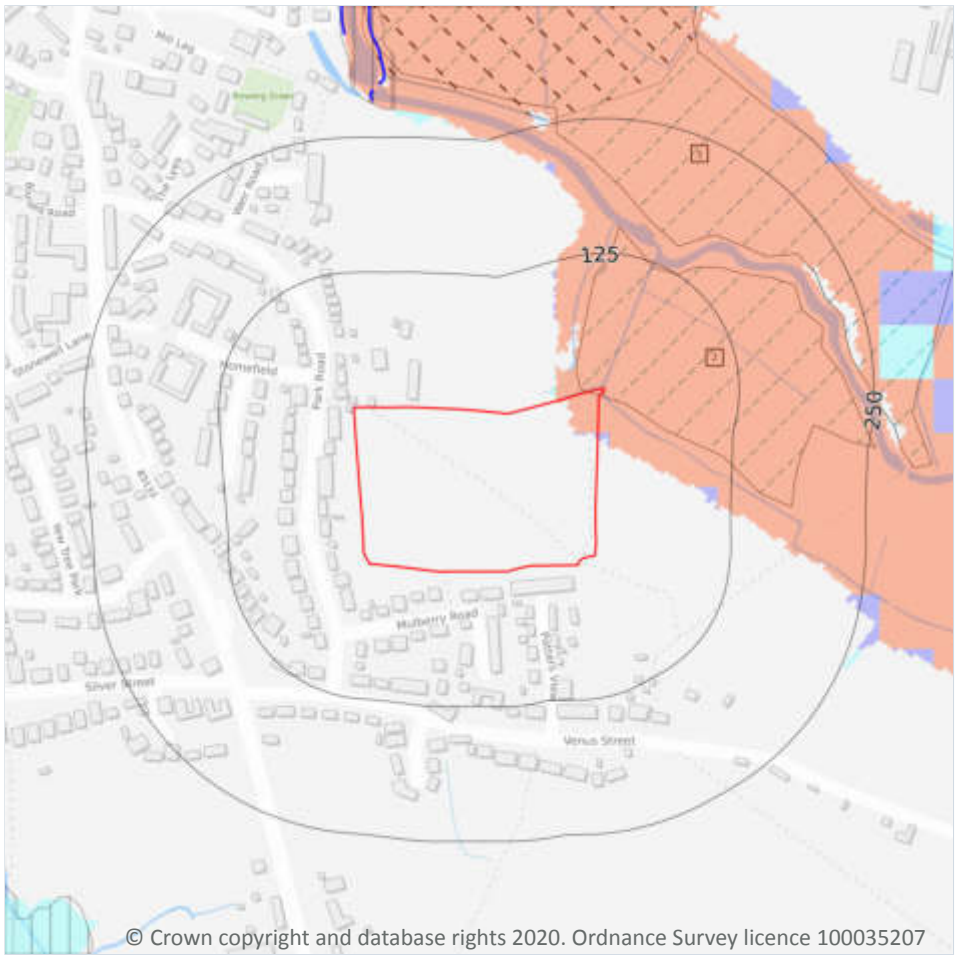
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 43**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
B	**On site**	**Bristol Triassic**	**GB40902G804800**	**Poor**	**Poor**	**Good**	**2015**
B	**On site**	**Bristol Triassic**	**GB40902G804800**	**Poor**	**Poor**	**Good**	**2016**

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

Environment Agency river and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m	9

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; 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).

Features are displayed on the River and coastal flooding map on **page 47**

Distance	RoFRaS flood risk
On site	**High**
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	2

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

Features are displayed on the River and coastal flooding map on **page 47**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
2	**On site**	**Ea112_Congresbury Yeo_Congresbury_2012**	**2012-09-24 2012-09-25**	**Main river**	**Overtopping of defences**	**Fluvial**
5	149m NE	Ea112_Congresbury Yeo_Congresbury_2012	2012-09-24 2012-09-25	Main river	Overtopping of defences	Fluvial

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

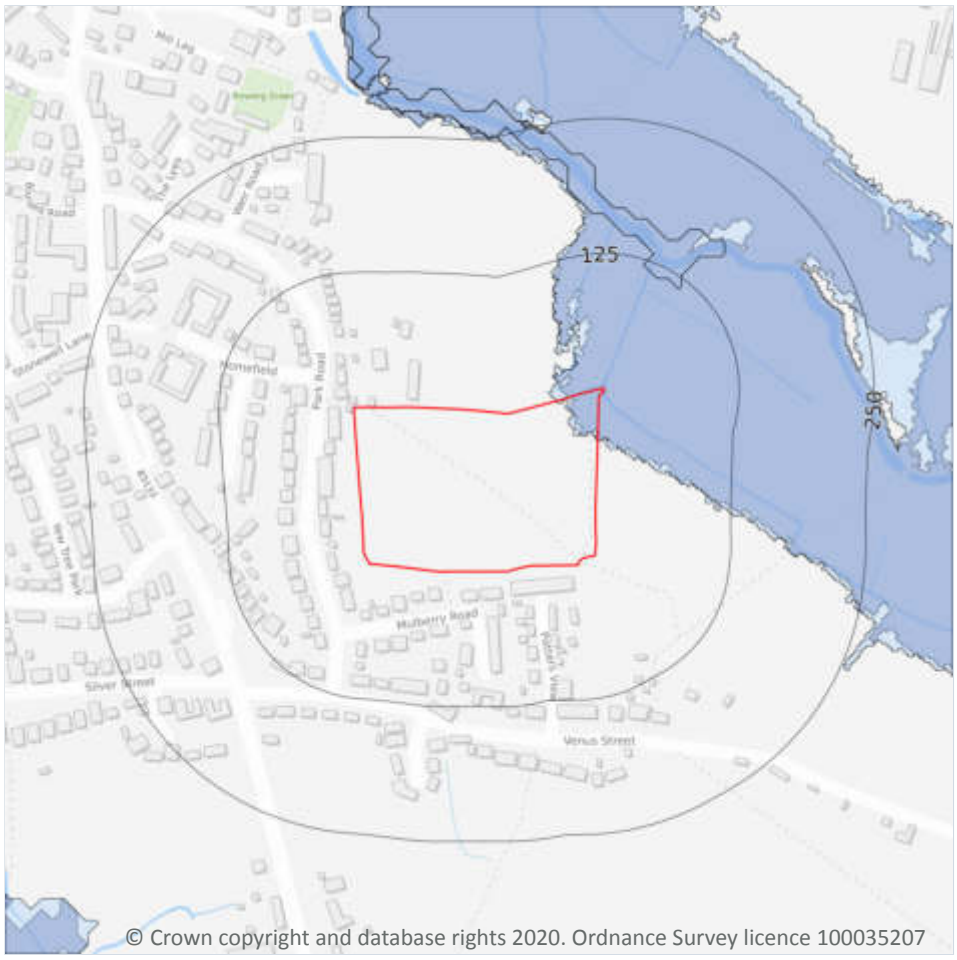
7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

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

Features are displayed on the River and coastal flooding map on **page 47**

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

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

7.7 Flood Zone 3

Records within 50m	1

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

Features are displayed on the River and coastal flooding map on **page 47**

Location	Type
On site	**Zone 3 - (Fluvial Models)**

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

8 Surface water flooding

Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, Greater than 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

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

Features are displayed on the Surface water flooding map on **page 52**

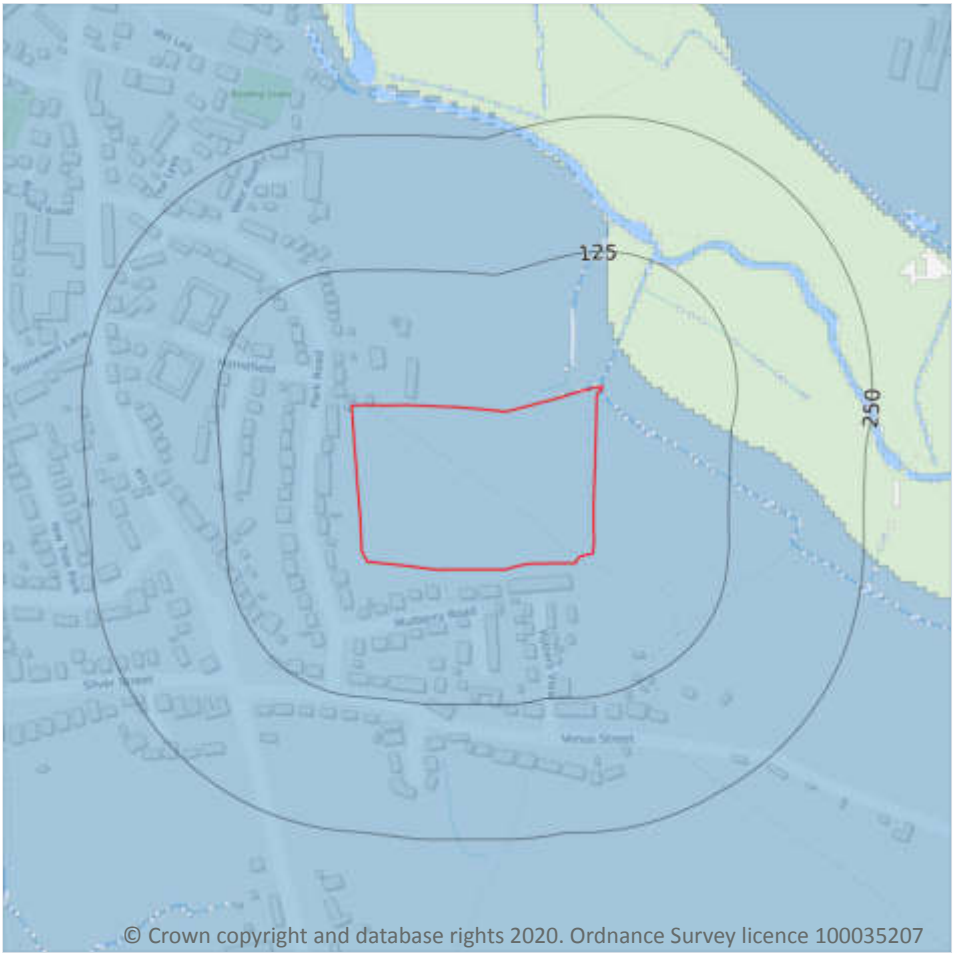
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

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

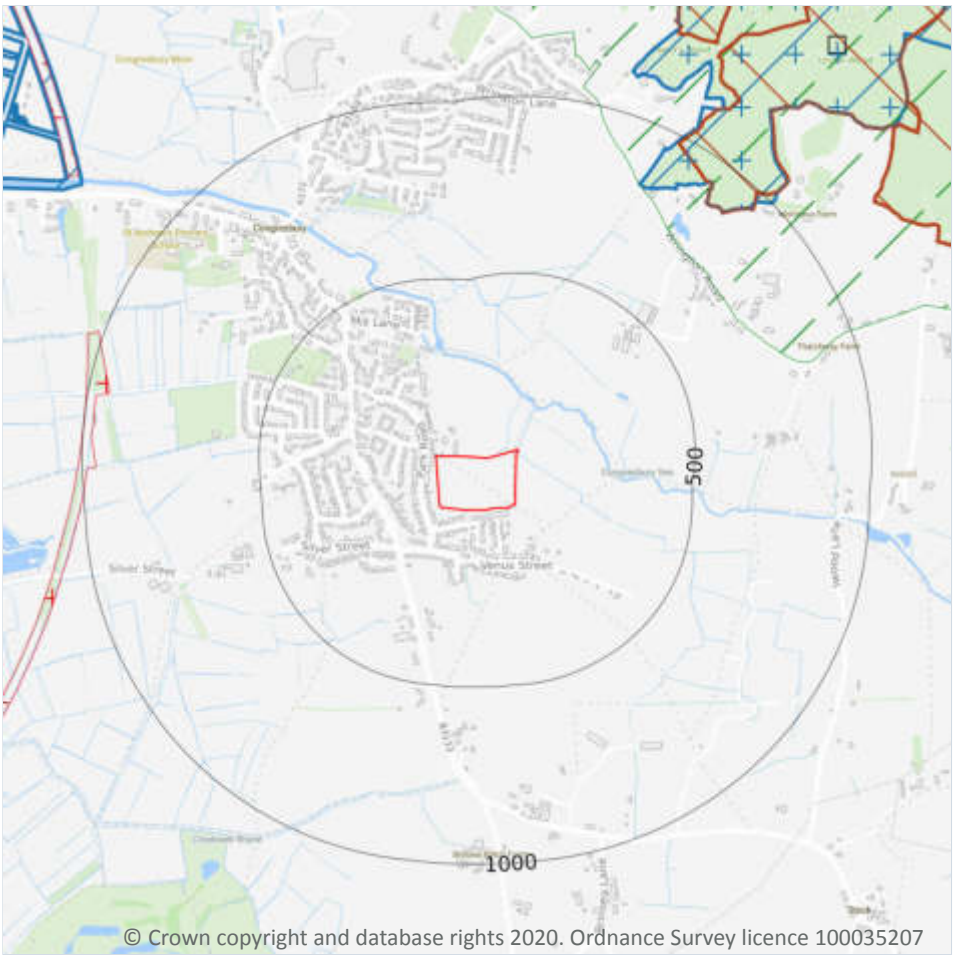
Highest risk on site	**Negligible**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 54**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SSSI)

Special Areas of Conservation (SAC)

Local Nature Reserves (LNR)

Designated Ancient Woodland

Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	2

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

Features are displayed on the Environmental designations map on **page 55**

ID	Location	Name	Data source
A	822m NE	King's Wood and Urchin Wood	Natural England

ID	Location	Name	Data source
4	1262m NW	Biddle Street, Yatton	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	**1**

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.

Features are displayed on the Environmental designations map on **page 55**

ID	Location	Name	Features of interest	Habitat description	Data source
A	822m NE	North Somerset & Mendip Bats	Dry heaths; Dry grasslands and scrublands on chalk or limestone; Caves not open to the public; Mixed woodland on base-rich soils associated with rocky slopes; Marsh fritillary butterfly; Lesser horseshoe bat; Greater horseshoe bat.	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Mixed woodland; Dry grassland, Steppes; Heath, Scrub, Maquis and Garrigue, Phygrana; Broad-leaved deciduous woodland	Natural England

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	3

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

Features are displayed on the Environmental designations map on **page 55**

ID	Location	Name	Data source
2	939m W	Cheddar Valley Railway Walk	Natural England
6	1284m NW	Cheddar Valley Railway Walk	Natural England
-	1572m N	Cadbury Hill	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	9

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

Features are displayed on the Environmental designations map on **page 55**

ID	Location	Name	Woodland Type
1	878m NE	Kings Wood	Ancient & Semi-Natural Woodland
3	1227m NE	Kings Wood	Ancient Replanted Woodland
5	1262m N	Kings Wood	Ancient & Semi-Natural Woodland
-	1353m NE	Kings Wood	Ancient & Semi-Natural Woodland

ID	Location	Name	Woodland Type
-	1483m NE	Kings Wood	Ancient Replanted Woodland
-	1552m N	Cadbury Hill Wood	Ancient & Semi-Natural Woodland
-	1762m E	Unknown	Ancient & Semi-Natural Woodland
-	1791m N	Kings Wood	Ancient & Semi-Natural Woodland
-	1872m N	Cadbury Hill Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 55**

ID	Location	Name	Local Authority name
A	719m NE	Bath and Bristol	North Somerset

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.

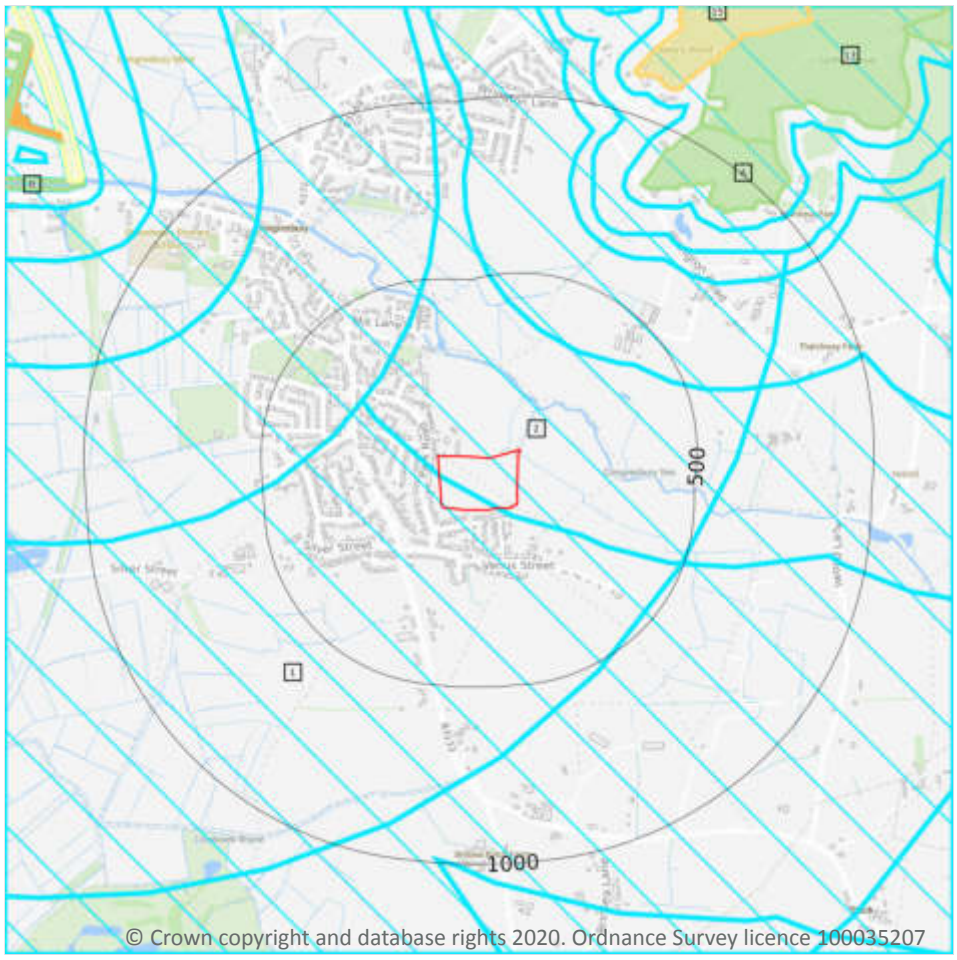
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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.

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	2

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 61**

ID	Location	Type of developments requiring consultation
1	On site	**All applications - All Planning Applications (Except Householder) Outside Or Extending Outside Existing Settlements/urban Areas Affecting Greenspace, Farmland, Semi Natural Habitats Or Landscape Features Such As Trees, Hedges, Streams, Rural Buildings/structures** **Infrastructure - Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals** **Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines** **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 footprint exceeds 1ha.** **Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas.** **Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 200m² & manure stores > 250t).** **Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion** **Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.** **Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management** **Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location).** **Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.**

ID	Location	Type of developments requiring consultation
2	**On site**	**All applications - All Planning Applications (Except Householder) Outside Or Extending Outside Existing Settlements/urban Areas Affecting Greenspace, Farmland, Semi Natural Habitats Or Landscape Features Such As Trees, Hedges, Streams, Rural Buildings/structures** **Infrastructure - Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals** **Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines** **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 footprint exceeds 1ha.** **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 industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 200m² & manure stores > 250t).** **Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion** **Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.** **Composting - Any composting proposal with more than 500 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.** **Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location).** **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**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**19**

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 61**

ID:	A
Location:	822m NE
SSSI name:	King's Wood and Urchin Wood
Unit name:	Unit 13
Broad habitat:	Broadleaved, Mixed And Yew Woodland - Lowland
Condition:	Favourable
Reportable features:	

Feature name	Feature condition	Date of assessment
H9180 Tilio-Acerion forests of slopes, screes and ravines	Favourable	21/04/2010
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Favourable	21/04/2010

ID: 13
Location: 1053m NE
SSSI name: King's Wood and Urchin Wood
Unit name: Urchin Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
H8310 Caves not open to the public	Not Recorded	01/01/1900
H9180 Tilio-Acerion forests of slopes, screes and ravines	Not Recorded	01/01/1900
Hibernating populations of bats - Barbastelle, Bechstein's bat, Greater Horseshoe bat, Lesser Horseshoe bat and mixed assemblages	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
Maternity colonies of bats - Greater Horseshoe bat, Rhinolophus ferrumequinum and Lesser Horseshoe bat, Rhinolophus hipposideros	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Not Recorded	01/01/1900

ID: 15
Location: 1107m NE
SSSI name: King's Wood and Urchin Wood
Unit name: Taylor's Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - No change
Reportable features:

Feature name	Feature condition	Date of assessment
H9180 Tilio-Acerion forests of slopes, screes and ravines	Unfavourable - No change	15/04/2010
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Favourable	15/04/2010

ID: B
Location: 1262m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 15 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Favourable	02/10/2012
Invert. assemblage W211 open water on disturbed sediments	Favourable	02/10/2012
Invert. assemblage W314 reed-fen & pools	Favourable	02/10/2012

ID: 17
Location: 1275m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 7 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Unfavourable - Recovering	27/09/2012
Invert. assemblage W211 open water on disturbed sediments	Unfavourable - Recovering	27/09/2012
Invert. assemblage W314 reed-fen & pools	Unfavourable - Recovering	27/09/2012

ID: -
Location: 1308m N
SSSI name: King's Wood and Urchin Wood
Unit name: Dressmells Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
H9180 Tilio-Acerion forests of slopes, screes and ravines	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Not Recorded	01/01/1900

ID: B
Location: 1387m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 15 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Favourable	02/10/2012
Invert. assemblage W211 open water on disturbed sediments	Favourable	02/10/2012
Invert. assemblage W314 reed-fen & pools	Favourable	02/10/2012

ID: B
Location: 1396m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 16 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Unfavourable - Declining	02/10/2012
Invert. assemblage W211 open water on disturbed sediments	Unfavourable - Declining	02/10/2012
Invert. assemblage W314 reed-fen & pools	Unfavourable - Declining	02/10/2012

ID: -
Location: 1460m N
SSSI name: King's Wood and Urchin Wood
Unit name: B S Group West
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Dormouse, Muscardinus avellanarius	Not Recorded	01/01/1900
H8310 Caves not open to the public	Favourable	19/05/2009
H9180 Tilio-Acerion forests of slopes, screes and ravines	Unfavourable - Recovering	19/05/2009

Feature name	Feature condition	Date of assessment
Hibernating populations of bats - Barbastelle, Bechstein's bat, Greater Horseshoe bat, Lesser Horseshoe bat and mixed assemblages	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
Maternity colonies of bats - Greater Horseshoe bat, Rhinolophus ferrumequinum and Lesser Horseshoe bat, Rhinolophus hipposideros	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Favourable	19/05/2009

ID: 21
Location: 1484m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 14 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Favourable	17/07/2012
Invert. assemblage W211 open water on disturbed sediments	Favourable	17/07/2012
Invert. assemblage W314 reed-fen & pools	Favourable	17/07/2012

ID: -
Location: 1487m E
SSSI name: King's Wood and Urchin Wood
Unit name: Ball Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - No change
Reportable features:

Feature name	Feature condition	Date of assessment
H9180 Tilio-Acerion forests of slopes, screes and ravines	Unfavourable - No change	20/04/2010
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Favourable	20/04/2010

ID: -
Location: 1535m N
SSSI name: King's Wood and Urchin Wood
Unit name: Old Reservoir
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
H9180 Tilio-Acerion forests of slopes, screes and ravines	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Not Recorded	01/01/1900

ID: 25
Location: 1595m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 13 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Favourable	31/07/2012
Invert. assemblage W211 open water on disturbed sediments	Favourable	31/07/2012
Invert. assemblage W314 reed-fen & pools	Favourable	31/07/2012

ID: 26
Location: 1604m NE
SSSI name: King's Wood and Urchin Wood
Unit name: Woolmers
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
H8310 Caves not open to the public	Favourable	20/04/2010
H9180 Tilio-Acerion forests of slopes, screes and ravines	Favourable	20/04/2010
Lowland mixed deciduous woodland	Not Recorded	01/01/1900

Feature name	Feature condition	Date of assessment
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Favourable	20/04/2010

ID: 27
Location: 1711m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 9 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Unfavourable - Recovering	07/08/2012
Invert. assemblage W211 open water on disturbed sediments	Unfavourable - Recovering	07/08/2012
Invert. assemblage W314 reed-fen & pools	Unfavourable - Recovering	07/08/2012
Nationally rare and scarce dragonfly species - Coenagrion pulchellum, Variable Damselfly	Unfavourable - Recovering	07/08/2012

ID: -
Location: 1726m N
SSSI name: King's Wood and Urchin Wood
Unit name: Bickley Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
H9180 Tilio-Acerion forests of slopes, screes and ravines	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Not Recorded	01/01/1900

ID: -
Location: 1729m NE
SSSI name: King's Wood and Urchin Wood
Unit name: King's Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Dormouse, Muscardinus avellanarius	Not Recorded	01/01/1900
H8310 Caves not open to the public	Favourable	21/04/2010
H9180 Tilio-Acerion forests of slopes, screes and ravines	Favourable	21/04/2010
Hibernating populations of bats - Barbastelle, Bechstein's bat, Greater Horseshoe bat, Lesser Horseshoe bat and mixed assemblages	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
Maternity colonies of bats - Greater Horseshoe bat, Rhinolophus ferrumequinum and Lesser Horseshoe bat, Rhinolophus hipposideros	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Favourable	21/04/2010

ID: -
Location: 1761m NW
SSSI name: Biddle Street, Yatton
Unit name: Unit 12 Biddle Street, Yatton
Broad habitat: Standing Open Water And Canals
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Ditches	Favourable	31/07/2012
Invert. assemblage W211 open water on disturbed sediments	Favourable	31/07/2012
Invert. assemblage W314 reed-fen & pools	Favourable	31/07/2012

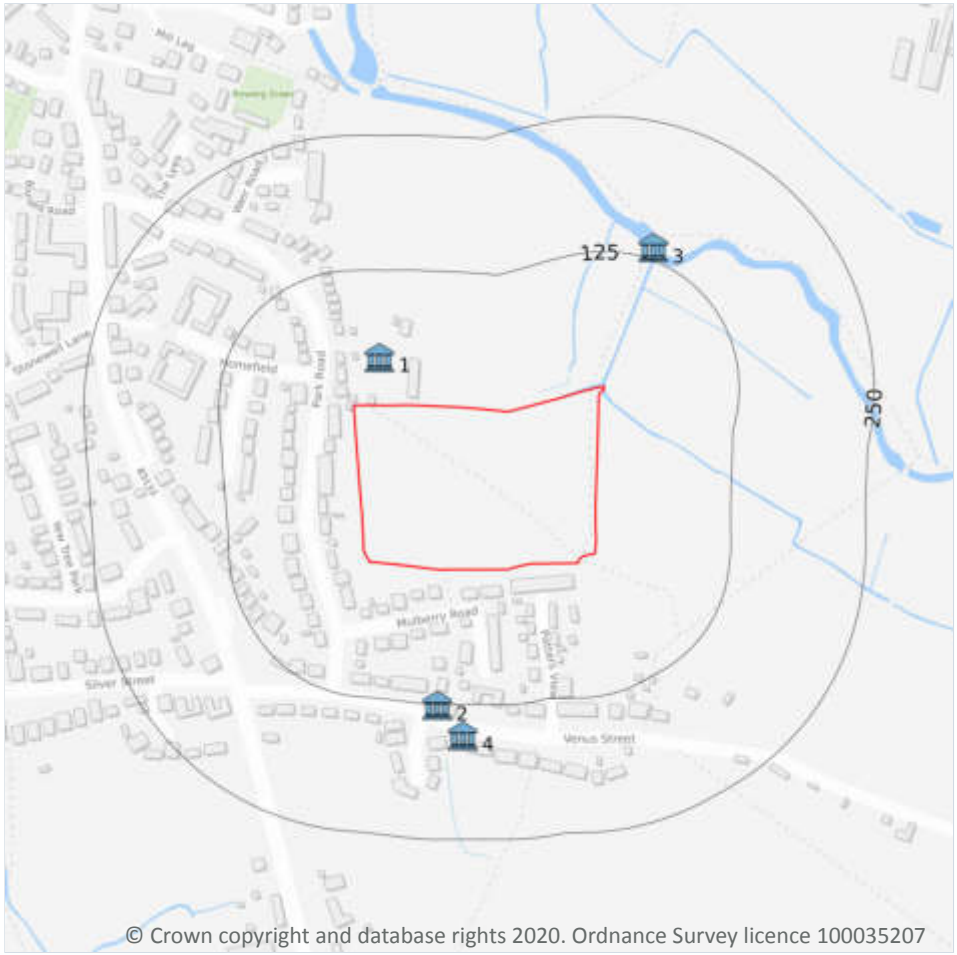
ID: -
Location: 1976m NE
SSSI name: King's Wood and Urchin Wood
Unit name: Hidden Valley
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
H8310 Caves not open to the public	Not Recorded	01/01/1900
H9180 Tilio-Acerion forests of slopes, screes and ravines	Not Recorded	01/01/1900

Feature name	Feature condition	Date of assessment
Hibernating populations of bats - Barbastelle, Bechstein's bat, Greater Horseshoe bat, Lesser Horseshoe bat and mixed assemblages	Not Recorded	01/01/1900
Lowland mixed deciduous woodland	Not Recorded	01/01/1900
Maternity colonies of bats - Greater Horseshoe bat, Rhinolophus ferrumequinum and Lesser Horseshoe bat, Rhinolophus hipposideros	Not Recorded	01/01/1900
S1304 Greater horseshoe bat, Rhinolophus ferrumequinum	Not Recorded	01/01/1900

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	4

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

Features are displayed on the Visual and cultural designations map on **page 72**

ID	Location	Name	Grade	Reference Number	Listed date
1	45m N	Park Farmhouse, Congresbury, North Somerset, BS49	II	1129233	24/04/1990
2	126m S	Pineapple Farmhouse With Garden Walls, Congresbury, North Somerset, BS49	II	1129211	19/01/1987
3	136m N	Collins Bridge Over River Yeo, Congresbury, North Somerset, BS49	II	1392285	26/10/2007
4	154m S	Yeoman's Orchard, Congresbury, North Somerset, BS49	II	1129212	17/06/1982

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

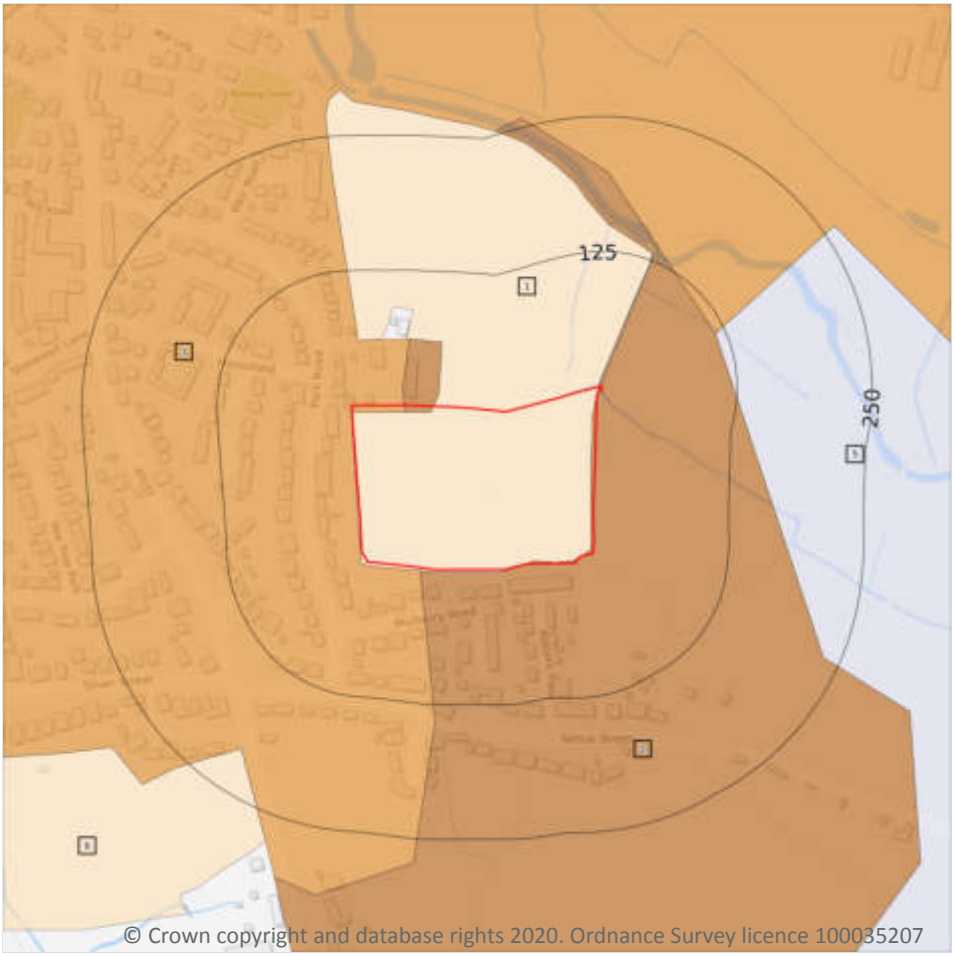
11.7 Registered Parks and Gardens

Records within 250m	0

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

This data is sourced from English Heritage, 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	5

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 75**

ID	Location	Classification	Description
1	On site	Grade 3b	**Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.**

ID	Location	Classification	Description
2	**On site**	**Grade 2**	**Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.**
3	**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.**
5	115m E	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.
6	209m SW	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

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.

This data is sourced from Natural England.

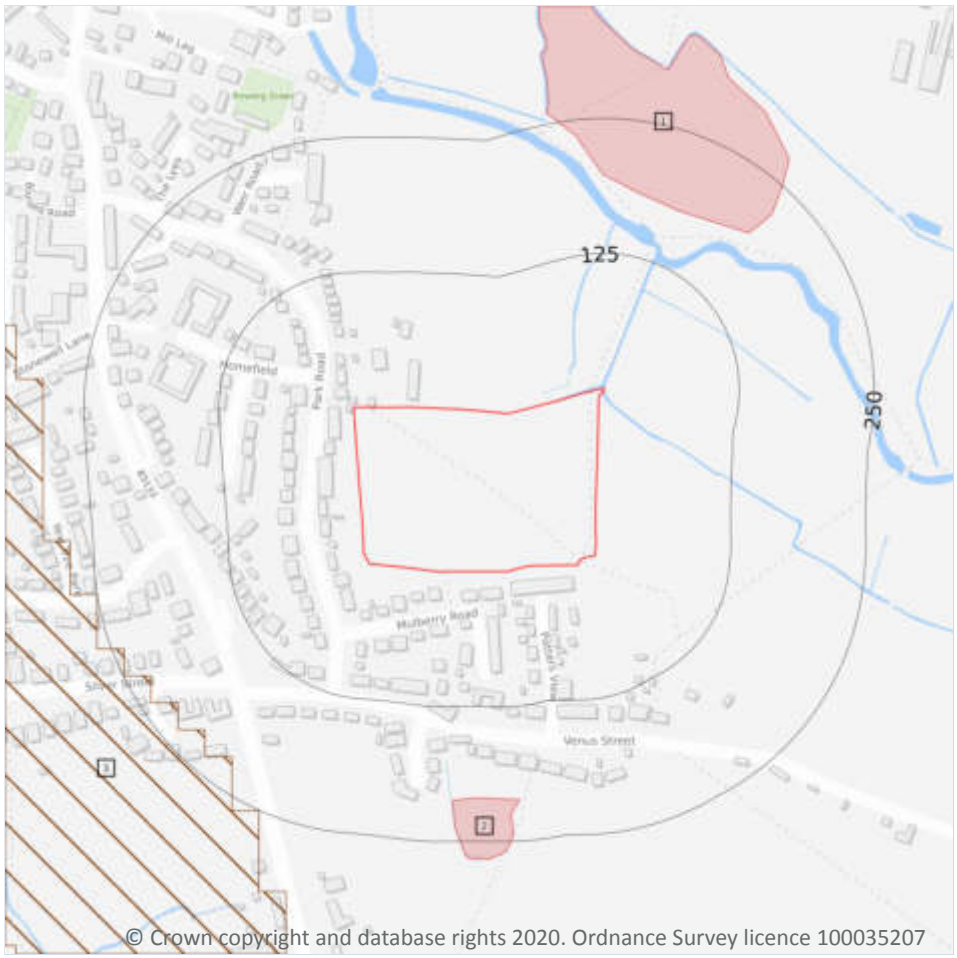
12.5 Countryside Stewardship Schemes

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	2

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

Features are displayed on the Habitat designations map on **page 78**

ID	Location	Main Habitat	Other habitats
1	178m NE	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
2	210m S	Traditional orchard	Main habitat: TORCH (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 78**

ID	Location	Type	Habitat
3	217m SW	Network Enhancement Zone 2	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.

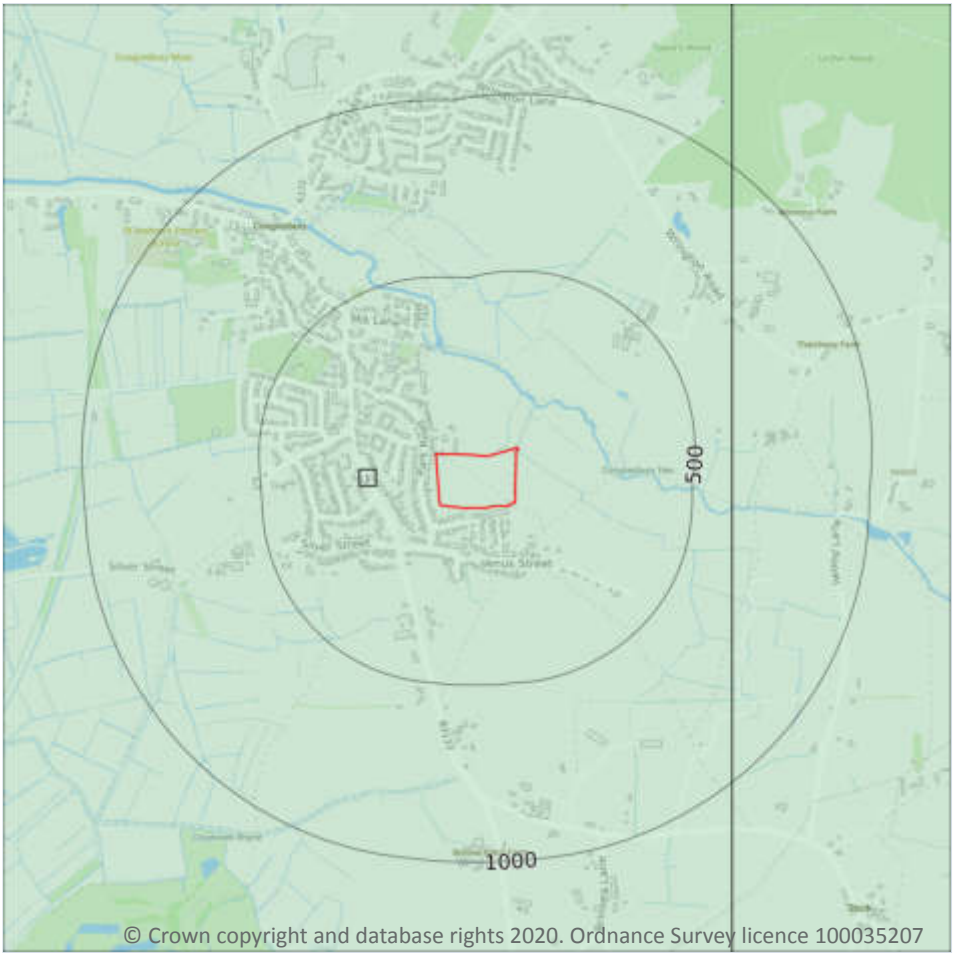
13.4 Limestone Pavement Orders

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	1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 80**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**ST46SW**

This data is sourced from the British Geological Survey.

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

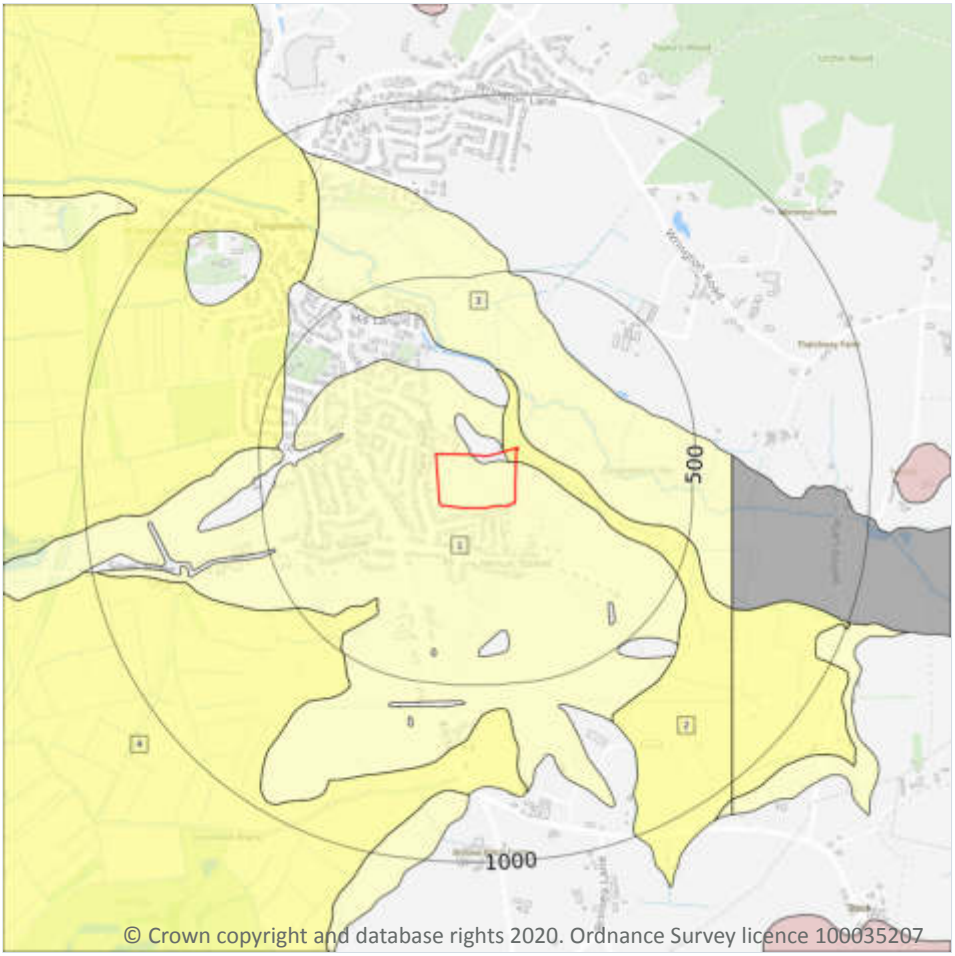
14.2 Artificial and made ground (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m **4**

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 82**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**RTFD-XCZ**	**Raised Tidal Flat Deposits - Clay And Silt**	**Clay And Silt**
2	**On site**	**TFD-XCZ**	**Tidal Flat Deposits - Clay And Silt**	**Clay And Silt**
3	34m NE	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
4	319m SW	TFD-XCZ	Tidal Flat Deposits - Clay And Silt	Clay And Silt

This data is sourced from the British Geological Survey.

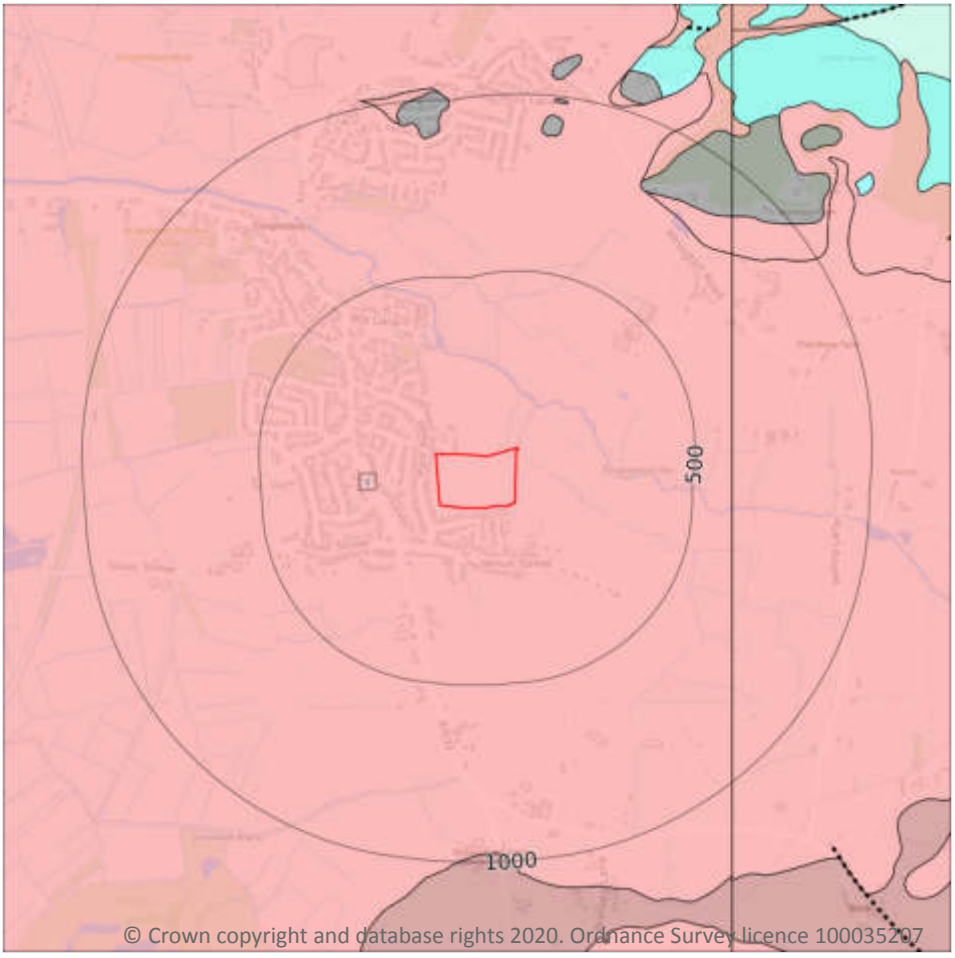
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 84**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**MMG-MDST**	**Mercia Mudstone Group - Mudstone**	**Rhaetian Age - Early Triassic Epoch**

This data is sourced from the British Geological Survey.

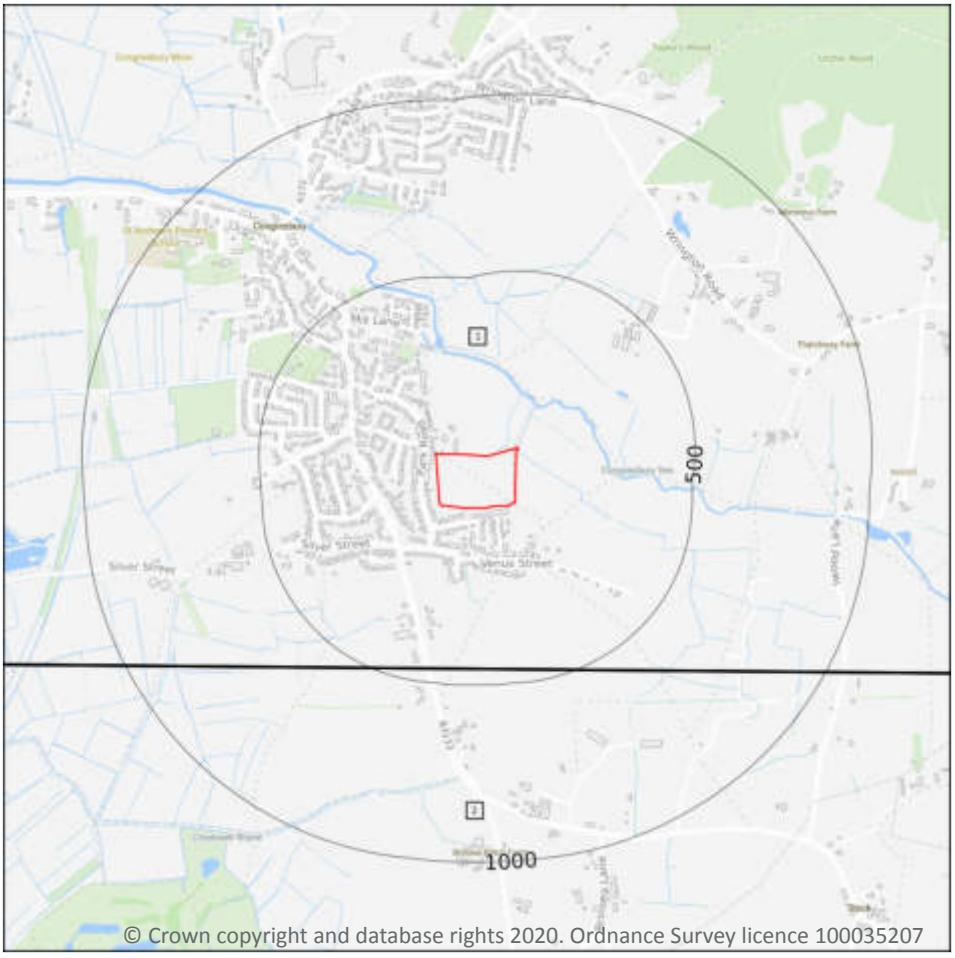
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	2

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 86**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW264_bristol_v4**
2	454m S	No coverage	Full	Full	Full	EW280_wells_v4

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

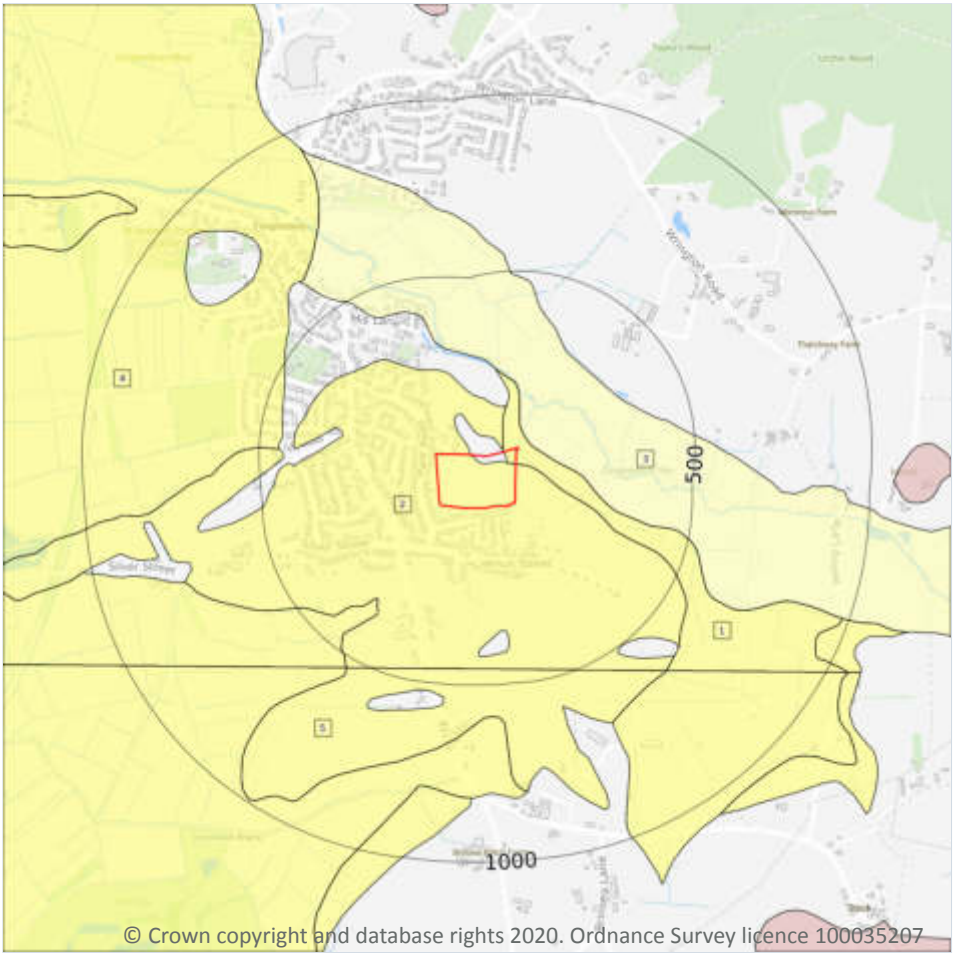
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m **5**

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

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

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TFD-XCZ**	**TIDAL FLAT DEPOSITS**	**CLAY AND SILT**
2	**On site**	**TFD1-XCZ**	**TIDAL FLAT DEPOSITS, 1**	**CLAY AND SILT**
3	34m NE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	319m SW	TFD-XCZ	TIDAL FLAT DEPOSITS	CLAY AND SILT

ID	Location	LEX Code	Description	Rock description
5	453m S	TFD1-XCZSV	TIDAL FLAT DEPOSITS, 1	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	**3**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Low**	**Very Low**
On site	**Intergranular**	**Low**	**Very Low**
34m N	Intergranular	High	Very Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

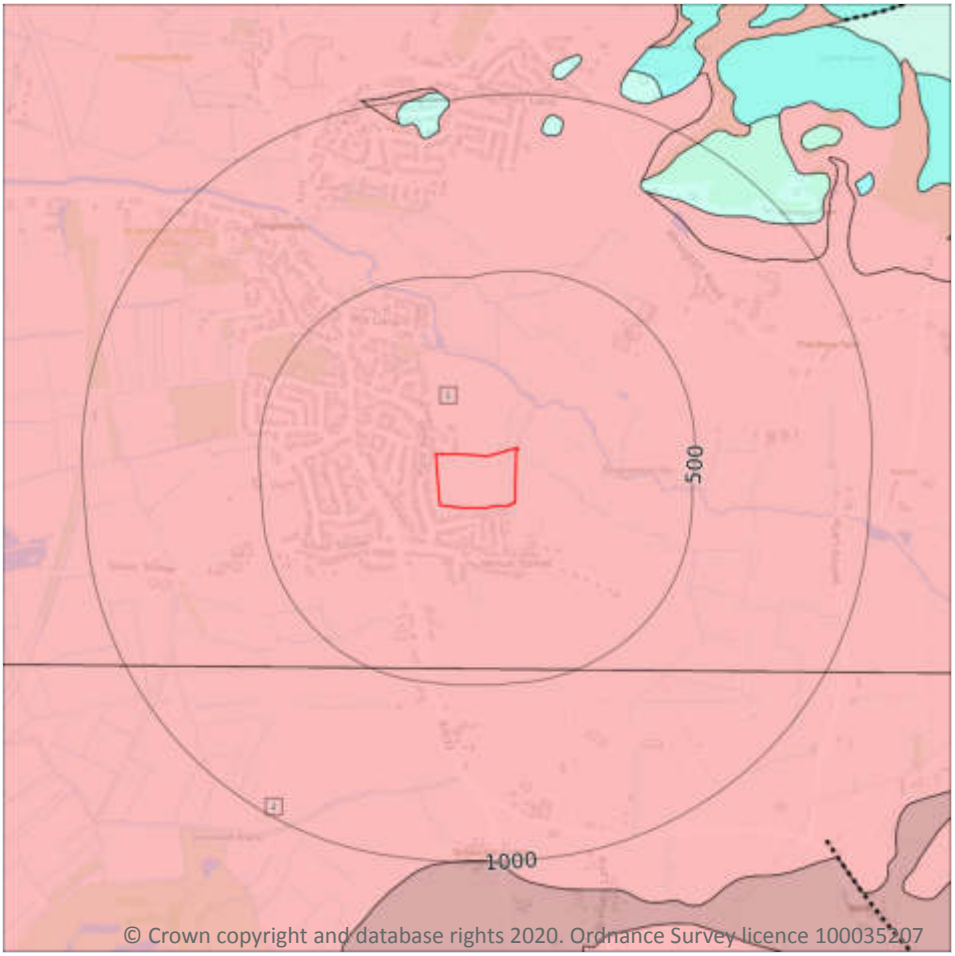
15.7 Landslip permeability (50k)

Records within 50m	**0**

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m **2**

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 90**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**MMG-MDHA**	**MERCIA MUDSTONE GROUP - MUDSTONE AND HALITE-STONE**	**-**
2	453m S	MMG-MDHA	MERCIA MUDSTONE GROUP - MUDSTONE AND HALITE-STONE	-

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**	**Low**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes

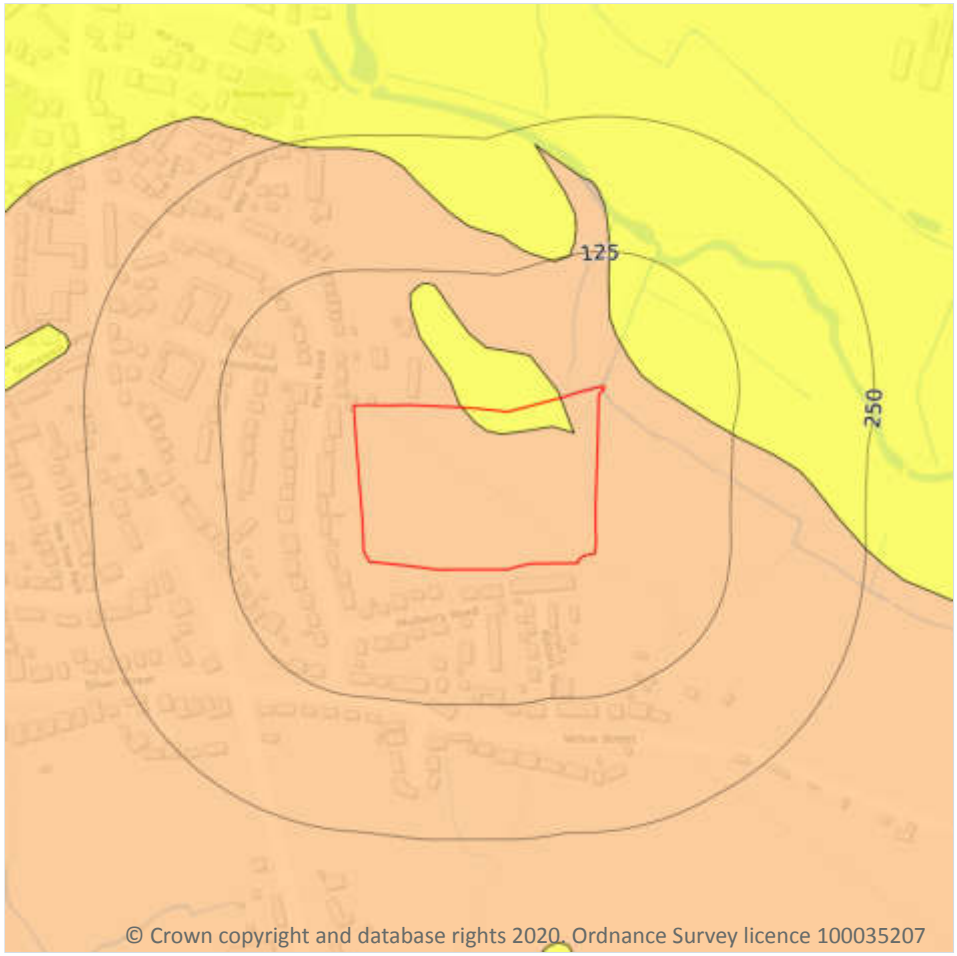
16.1 BGS Boreholes

Records within 250m	0

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

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m	3

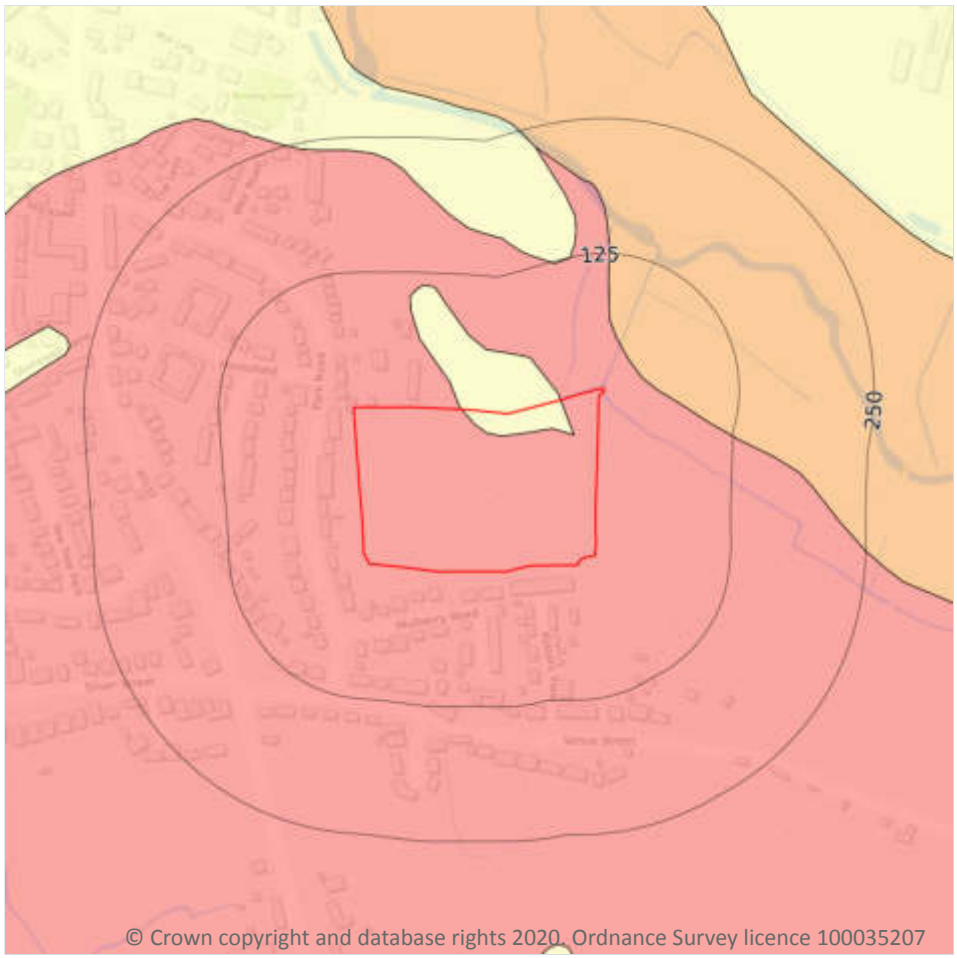
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 93**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**
On site	**Low**	**Ground conditions predominantly medium plasticity.**
34m NE	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	3

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

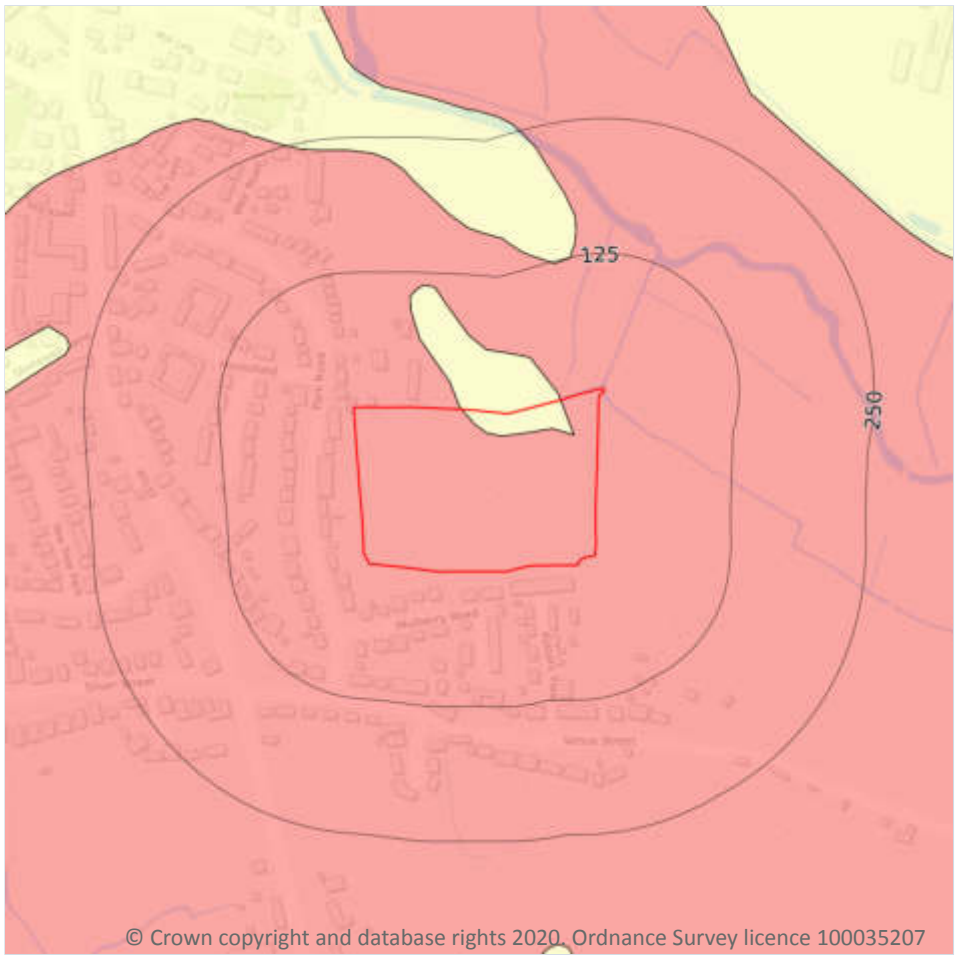
Features are displayed on the Natural ground subsidence - Running sands map on **page 95**

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

Location	Hazard rating	Details
On site	**Moderate**	**Running sand conditions are probably present. Constraints may apply to land uses involving excavation or the addition or removal of water.**
34m NE	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	2

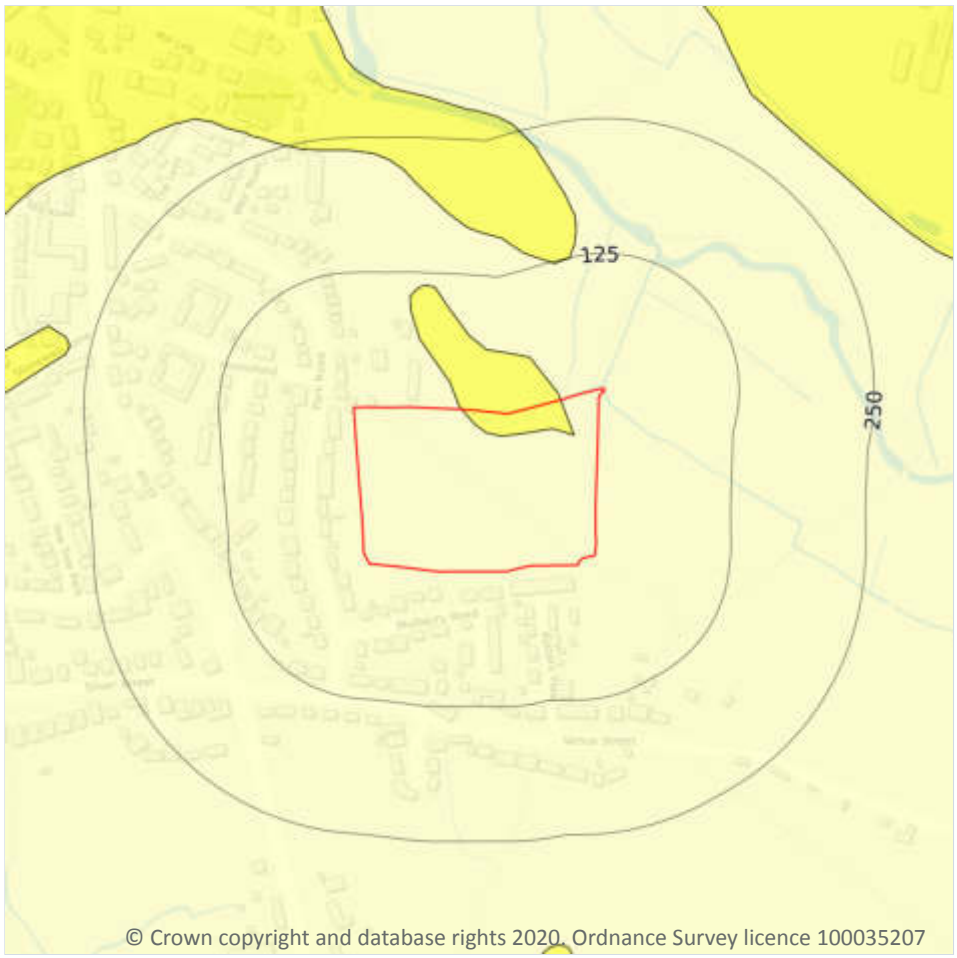
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 97**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	2

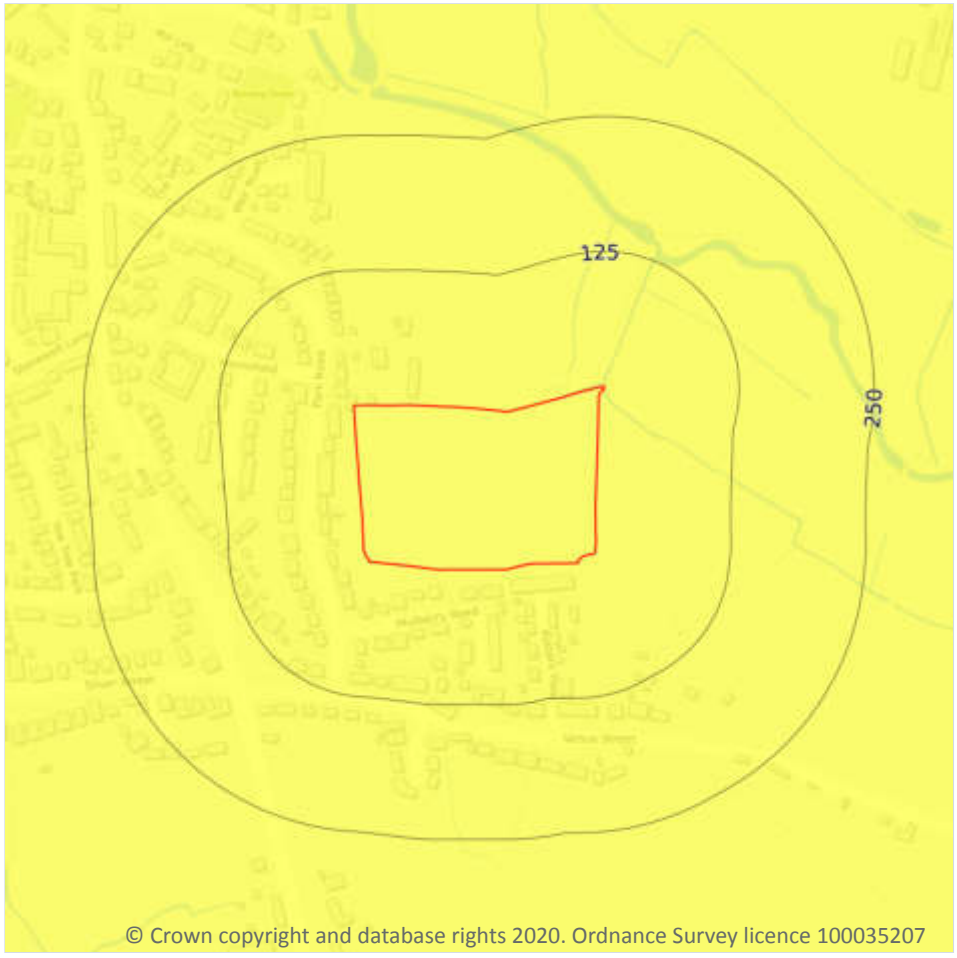
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 99**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

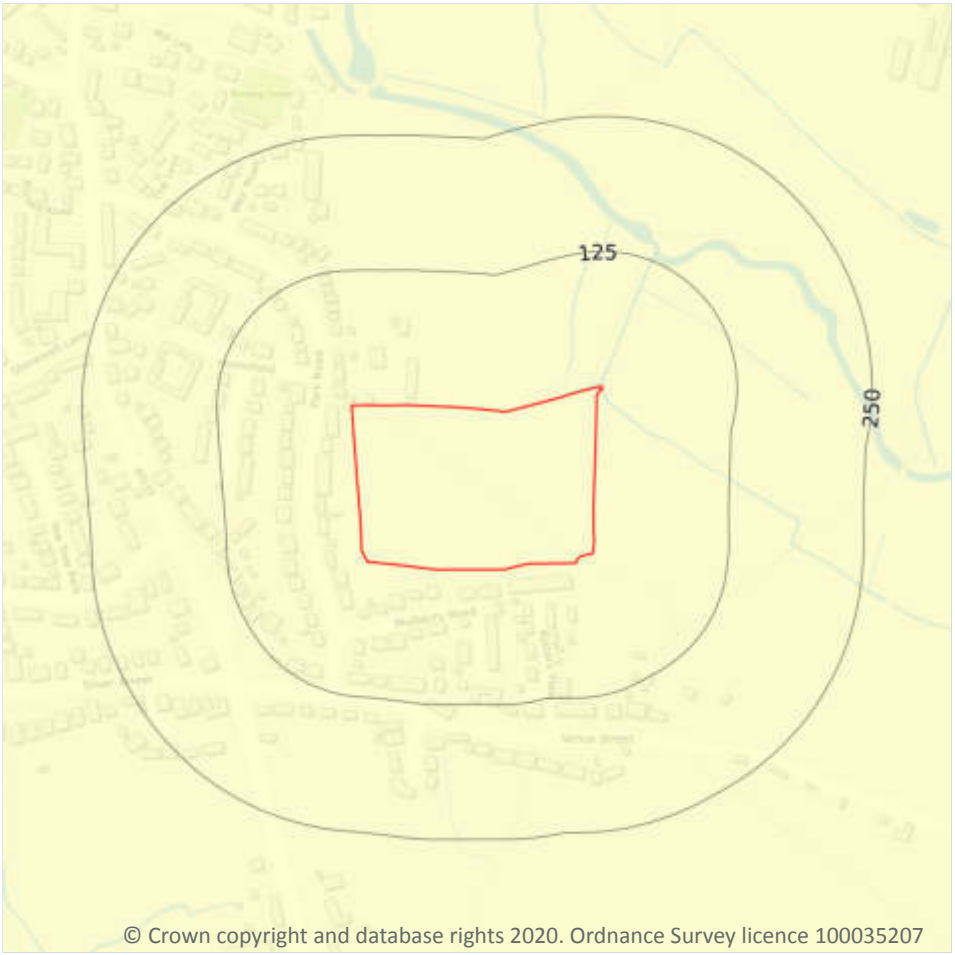
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 100**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m	1

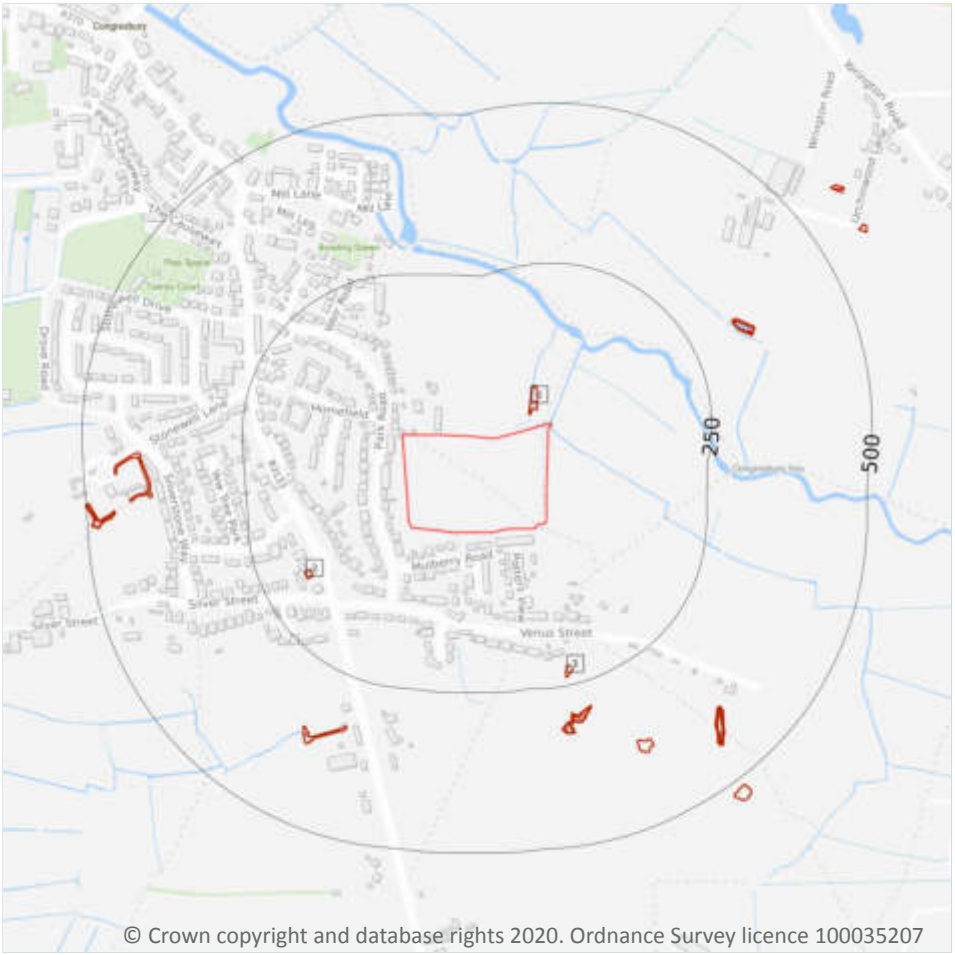
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 101**

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

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

Natural cavities (Area)

Natural cavities (Point)

BritPits

Surface ground workings

Underground workings

Historical Mineral Planning Areas

Mining Cavities

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

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

This data is sourced from Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	3

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

ID	Location	Land Use	Year of mapping	Mapping scale
1	22m N	Pond	1883	1:10560
2	171m SW	Pond	1904	1:10560
3	219m S	Pond	1904	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	4

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

ID	Location	Name	Commodity	Class	Likelihood
-	809m NE	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	886m N	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	891m NE	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	893m N	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

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

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

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

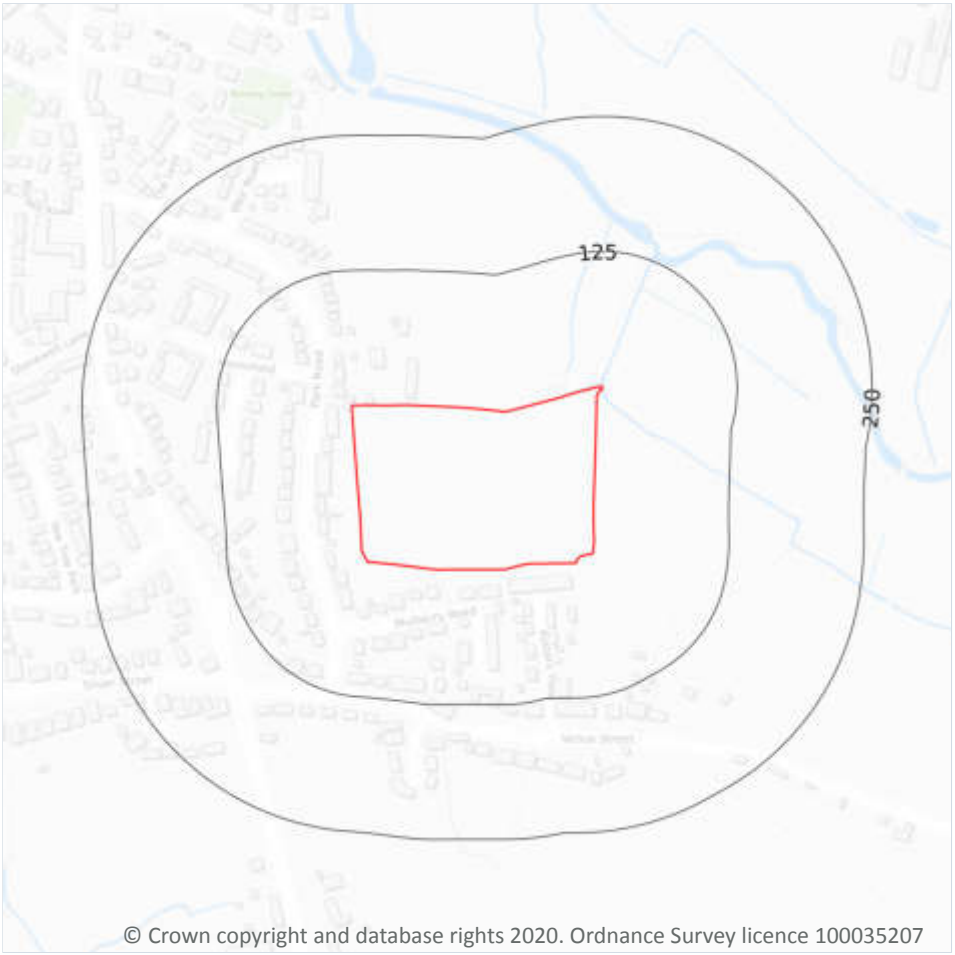
18.13 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

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

19 Radon



Site Outline

Search buffers in metres (m)

Greater than 30%

Between 10% and 30%

Between 5% and 10%

Between 3% and 5%

Between 1% and 3%

Less than 1%

19.1 Radon

Records on site	1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 108**

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

This data is sourced from the British Geological Survey and Public Health England.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	4

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
34m NE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

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

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-jan-2020/.

D Risk Definition

The method used for risk evaluation is qualitative based on interpretation of the available geoenvironmental data in order to provide an overall impression of the potential risks present at the site. This is described in terms of two variables as follows:

- **"Probability"** – being the likelihood that a hazard is present on site or in the surroundings.
- **"Consequence"** – being the potential outcome of the hazard.

The combination of these is used to define the risk. Clearly if a hazard is not present there can be no consequence. Similarly hazards that are potentially present will have different degrees of potential consequence. The combination of the presence of a hazard, and the potential severity of outcome of such a hazard within any event, can be used to manage the approach to management of the risk.

The **probability** (likelihood) of an event can be classified on a four point system using the following terms and definitions based on CIRIA C552:

- **Highly likely**: The event appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution;
- **Likely**: It is probable that an event will occur, or circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term;
- **Low likelihood**: Circumstances are possible under which an event could occur, but it is not certain even in the long term that an event would occur and it is less likely in the short term;
- **Unlikely**: Circumstances are such that it is improbably the event would occur even in the long term.

The **consequence** (severity) can be classified using a similar system also based on CIRIA C552. The terms and definitions relating to consequence are:

- **Severe**: Short term (acute) risk to human health likely to result in 'significant harm'. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. Short term risk to an ecosystem or organism forming part of that ecosystem;
- **Medium**: Chronic damage to human health ('significant harm'), pollution of sensitive water resources, significant change in an ecosystem or organism forming part of that ecosystem;
- **Mild**: Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm'). Damage to sensitive buildings, structures or the environment; and
- **Minor:** Harm, not necessarily significant, but that could result in financial loss or expenditure to resolve. Non-permanent human health effects easily prevented by use of personal protective clothing. Easily repairable damage to buildings, structures and services.

Once the probability of an event occurring and its consequence have been classified, a risk category can be assigned as in the following table.

		Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**Highly likely**	**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**

Risk Level	**Action**
Low to Very Low	None
Moderate to Moderate/Low	Undertake appropriate mitigation measures to reduce the risk level by appropriate on-site practice at little additional cost.
High to Very High	Designers should take such risks into account and avoid or reduce risk level to acceptable levels. Additional resources required.

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