Botley West Solar Farm

Environmental Statement

Volume 3

Appendix 11.8: Botley Central Site Area - Land Parcel 10, Desktop Study and Preliminary Risk Assessment

November 2024

PINS Ref: EN010147
Document Ref: EN010147/APP/6.5
Revision P0
APFP Regulation 5(2)(a); Planning Act 2008; and Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations

Approval for issue

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Glossary

Term	Meaning
The Applicant	SolarFive Ltd
The Project	The Botley West Solar Farm (Botley West) Project
Conceptual Site Model	used to identify potential sources, pathways and receptors and how they interact (i.e. potential pollutant linkages) on site post development
Controlled Waters	Controlled waters means territorial waters within the 3 nautical mile limit, coastal waters extending inland, inland waters and ground water
Desk Top Study	A desk study is the collation and review of information already available in the public domain and is carried out at an early stage of site appraisal and forms the basis of the preliminary risk assessment
Pathway	How the contaminant may be expected to move/migrate to a receptor
Preliminary Risk Assessment	Report that presents a summary of readily-available information on the geotechnical and/or geo-environmental characteristics of the site and provides a qualitative assessment of geo-environmental and/or geotechnical risks in relation to the proposed development.
Principal Aquifer	These formations provide a high level of water storage and may support water supply and / or river base flow on a strategic scale
Receptor	Target that could be adversely affected by contaminants
Secondary A Aquifer	These formations are formed of permeable layers capable of supporting water supplies at a local scale, in some cases forming an important source of base flow to rivers.
Secondary B Aquifer	These formations are generally formed of lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering
Secondary Undifferentiated Aquifer	Secondary undifferentiated are aquifers where it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type. These have only a minor value
Site of Special Scientific Interest	Sites designated by Natural England under the Wildlife and Countryside Act 1981. This can include sites of national and international importance for sediments, rocks, fossils, and features of the landscape
Source	Source of contamination
Unproductive Strata	These formations have a low permeability and have negligible significance for water supply or base flow

Abbreviations

Abbreviation	Meaning
AOD	Above Ordnance Datum
bgl	Below Ground Level
BGS	British Geological Survey
CIRIA	Construction Industry Research and Information Association
CSM	Conceptual Site Model
DTS	Desk Top Study
EA	Environment Agency
HDD	Horizontal Directional Drilling
NGET	National Grid Electricity Transmission
NGR	Ordnance Survey National Grid Reference
NPPF	National Planning Policy Framework
NVZ	Nitrate Vulnerable Zone
PAOC	Potential Areas of Concern
PRA	Preliminary Risk Assessment
PV	Photovoltaic
PVDP	Photovolt Development Partners GmbH
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SPA	Special Protection Area
SPZ	Groundwater Source Protection Zone
SSSI	Site of Special Scientific Interest
UXO	Unexploded Ordnance
WFD	Water Framework Directive

Units

Unit	Description
%	Percentage
m	Metres
kV	Kilovolt
km	Kilometre
MW	Megawatt
MWh	Megawatt hour

1 Botley Central Site Area - Land Parcel 10, DTS & PRA

1.1 Introduction

1.1.1 This Appendix of the Environmental Statement (ES) has been prepared by RPS on behalf of Photovolt Development Partners GmbH. (PVDP) for the Applicant, SolarFive Ltd. (SolarFive). This Appendix supports Chapter 11 of the ES.

1.1.2 The Project will be located in the county of Oxfordshire, across an area of approximately 1,300 ha. The Project extends from an area of land in the north, situated between the A4260 and the Dorn River Valley near Tackley and Wootton (Northern Site Area), through a central section, situated broadly between Bladon and Cassington (Central Site Area), and connecting to a section further south near to Farmoor Reservoir and north of Cumnor (Southern Site Area), where the Project will connect to the National Grid transmission network. The name 'Botley West' is derived from the location of the grid connection point. The consent being sought for the Project is a temporary one. Temporary consent is being sought for a 42-year period during which the solar farm will be constructed, operated and decommissioned.

1.1.3 The Project comprises three main temporary development sites as set out above for installation of ground-mounted solar photovoltaic (PV) panels (Northern, Central and Southern Site Areas). The Project's solar arrays will be connected by electrical cables within each of the Site Areas. The interconnecting cable routes between the Site Areas will largely follow the public highway, but some parts will cross land either leased by the Client or the subject of an easement agreement.

1.1.4 A Site Location Plan showing the location and order limits for The Project is presented as Drawing 1.In order to provide sufficient detail for the PRA, the three main areas of The Project have been sub-divided by RPS into fourteen land parcels (referenced as Land Parcels 01 – 14) and the two linking cable route corridors (referenced as Land Parcels 15 and 16). Land Parcel 1 was discounted from requirement for further assessment following completion of an initial EIA Scoping exercise undertaken by RPS in February 2023.This report presents the DTS and PRA for Land Parcel 10 forming the Central Site area as shown in Figure 1.

1.1.5 The Desk Study assessment is based upon a review of published information available from local, regional, and national agencies. The desk study information is derived from Insights Reports provided by Groundsure, Ref. GSIP-2022-12757-10509 and GSIP-2022-12757-10510_2 which are presented as Annex C and D. Please note the terms and conditions attached to the supply of data from Groundsure.

1.2 Objectives

1.2.1 The principal objectives of this assessment were as follows:

- Establish from published sources the geological sequence for Land Parcel 10 and potential for ground instability to occur through

development proposals and the extent and nature of any safeguarded minerals reserves;

- To assess potential sources of contamination at the site, associated with historical and current land uses both on-site and in the surrounding area;
- To review the environmental setting to assess the sensitivity of the surrounding area to contamination/pollution;
- To produce an outline Conceptual Site Model (CSM) detailing how any contamination may impact the identified receptors via pollutant linkages; and
- To conclude on the likely requirement for any further assessment and ground investigation required in support of the planning application.

1.2.2 The PRA methodology utilised in the preparation of this assessment is presented in detail in Annex A.

1.3 Legislation and Guidance

1.3.1 The assessment has been undertaken in general accordance with British Standard BS EN ISO 21365:2020 and is considered suitable to meet the initial requirements of planning as outlined within the National Planning Policy Framework (NPPF). The assessment also reflects the recommendations of Environment Agency guidance, Land Contamination: Risk Management, (LCRM 2023).

1.3.2 This report has been produced in general accordance with:

- Contaminated Land (England) Regulations 2006 (as amended);
- DEFRA Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance (2012);
- Environment Agency (2023) Land Contamination: Risk Management (LCRM 2023);
- National Planning Policy Framework (2023);
- CIRIA Document C665: Assessing Risks Posed by Hazardous Ground Gases to Buildings;
- British Standard requirements for the ‘Investigation of potentially contaminated sites - Code of practice’ (ref. BS10175:2011+A2:2017);
- British Standard requirements for the ‘Code of practice for ground investigations’ (ref. BS5930:2015+A1:2020); and,
- British Standard requirements for the ‘Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings’ (ref BS8485:2015+A1:2019).

1.3.3 Details of the limitations of this type of assessment are described in Annex B.

2 Site Description and Desk Study

2.1 Site Location (Land Parcel 10)

2.1.1 Land Parcel 10 comprises two fields to the west of Lower Road, north-east of Church Hanborough, OX29 8AE. It is located at approximate Ordnance Survey (OS) National Grid Reference (NGR) SP 43323,13331 and occupies an area of approximately 18.10 ha.

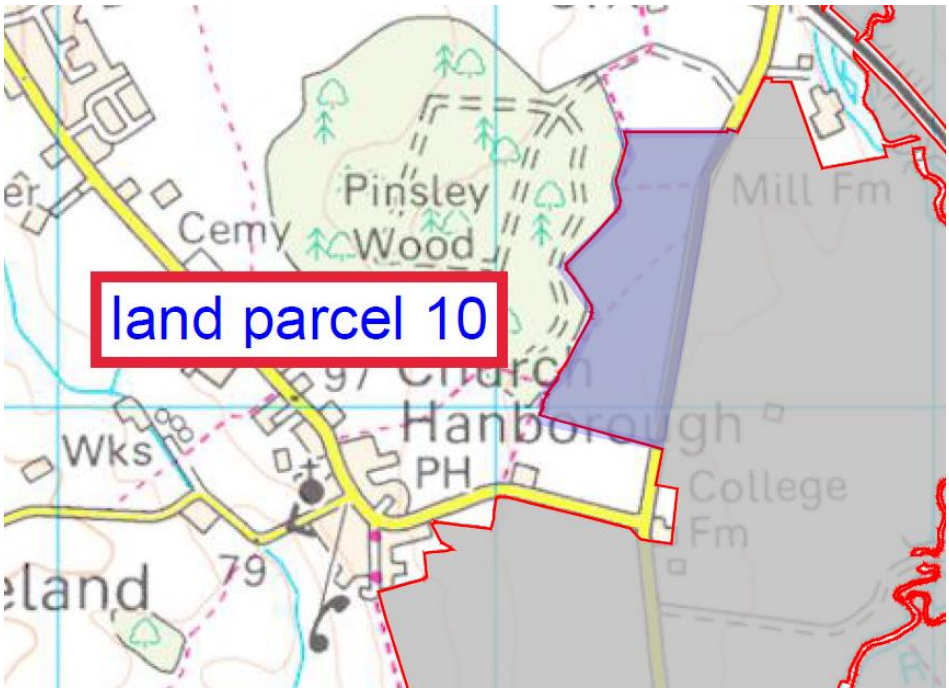

Figure 1: Extent of Land Parcel 10

2.1.2 There is little variation in topography across the land parcel with a difference in elevation from approximately 75 m Above Ordnance Datum (AOD) in the south-west to 68 m AOD on Lower Road, close to the eastern boundary based upon OS map contours and spot heights.

2.1.3 A targeted site inspection has not been undertaken on this land parcel given the absence of any on site permitted current activities or potential current contaminant sources identified from environmental data searches.

2.1.4 From Google Earth aerial photo images (May 2020), Land Parcel 10 is located in an area of agricultural land use. From the images reviewed, neighbouring land use consisted of the following:

Table 2.1: Neighbouring Land Uses

Direction	Description
North	Agricultural Land
East	Agricultural Land, Mill Farm, Lower Road
South	Piggery, Church Road, Agricultural Land
West	Pinsley Wood

2.2 Proposed Development

2.2.1 The proposed development is to comprise a temporary 1,307 MWp solar farm installation. The Project will connect to a new National Grid Electricity Transmission (NGET) system, via a new National Grid 400kV substation, to be located close to the existing National Grid 400 kV line that runs between Cowley in Oxford, westwards to Walham, in Gloucestershire. The majority of the development (840 ha) will comprise solar PV modules (solar panels). At the highest point the modules will be 2.2 m and at the lowest point the modules will be 0.8 m. The arrays are intended to be fixed, not rotating. The construction of all aspects of the Project is subject to the final Project design and potential environmental constraints.

2.2.2 The method of foundation support and anchoring of the solar panels has not been confirmed however it is likely that this will be through use of galvanised steel piles or screws driven into the ground by an impact piling or screwing rig, to a depth of approximately 1.0 to 2.5 m below ground level (bgl).

2.2.3 Cable routes are to be installed at depths ranging from 1.5 m to 30 m bgl with Horizontal Directional Drilling (HDD)to be utilised where it is not feasible to use the 'open cut' method to cross obstacles such as hedges, rivers, railway lines, public rights of way, roads and sensitive archaeological or ecological areas.

2.2.4 There are likely to be four main temporary construction compounds in the development areas, one in the North, two in the Central area and one in the South. All compounds have been carefully sited in order to minimise potential adverse environmental impacts. Topsoil and subsoil will be stripped from such areas and stored on site for replacement following the completion of construction works. Each compound will have fencing and suitable hard standing, offices, welfare facilities and generators to supply electricity.

2.3 Site History

Historical Map Review

2.3.1 The following review is based on past editions of readily available Ordnance Survey (OS) maps. These include scales of 1:1,250, 1:2,500, 1:10,560 and 1:10,000 dated 1880 to 2022. Extracts from historical maps are included in Annex C.

Table 2.2: Historical Site Uses

On-site Land Use and Features	Dates
Agricultural fields crossed by two footpaths and an east-west orientated drainage ditch with an easterly flow direction	1880-current

Table 2.3: Historical Neighbouring Site Uses

Surrounding Land Uses (250 m radius)	Orientation	Distance	Dates	
Kiln/Old Quarry	south	180 m	1880	1889
Pinsley Wood	west	0 m	1880	Current

Surrounding Land Uses (250 m radius)	Orientation	Distance	Dates	
Lower Road	east	0 m	1880	Current
Hanborough Corn Mill	north-east	200 m	1880	1955

Site Planning History

2.3.2 There are no planning records for Land Parcel 10 available on the West Oxfordshire District Council planning website.

2.4 Environmental Setting

2.4.1 The Groundsure Insight Reports used in preparation of the environmental setting assessment are included in Annex D.

Geology

2.4.2 Based on British Geological Survey (BGS) mapping (1:50,000-scale) and the Environment Agency (EA) Groundwater Vulnerability mapping (1:100,000-scale), the stratigraphic sequence and aquifer classifications beneath the site are indicated to be as follows:

Table 2.4: Descriptions of Geological Strata

Strata	Description & approximate thickness	Aquifer Classification
Artificial Ground	None recorded	-
Superficial Deposits		
Summertown-Radley Sand and Gravel Member	Sand and gravel, limited to central and north-east quarter. Thickness unknown	Secondary A
Bedrock		
Cornbrash Formation (Limestone)	Medium to fine-grained limestone. Up to 10.50 m thick, present through the central, north-eastern and southern portions of the land parcel.	Secondary A
Forest Marble Formation (Mudstone)	Silicate-mudstone, greenish grey, variably calcareous with limestone bands in the lower part. 10 – 30 m thick. Limited to west and north-west.	Secondary A

2.4.3 There are no available BGS borehole records within 100 m of Land Parcel 10.

2.4.4 A Natural Cavity (solution pipe) is recorded approximately 54 m north on bedrock strata of the Cornbrash Formation of the Great Oolite Group. Sites underlain by limestone can be prone to the presence of natural solution features formed by dissolution of the soluble strata. These features can be present in a stable or potentially unstable condition and metastable cavity

forms may be disturbed and triggered to cause ground subsidence. Trigger mechanisms may include loading, leaking drains, water supply pipes etc. An initial inspection of the Stantec data presented in the Groundsure report for natural cavities indicates no other recorded locations within 500 m while the risk identified by the BGS for ground dissolution of soluble rocks is negligible to low for the site area, the higher risk corresponding to the Cornbrash Formation in the east of the site.

Hydrogeology

2.4.5 The site is located above Secondary A Aquifers relating to both the Superficial Deposits and the underlying or outcropping bedrock. These comprise;

- Secondary A Aquifer: These formations are formed of permeable layers capable of supporting water supplies at a local scale, in some cases forming an important source of base flow to rivers.

2.4.6 According to EA data, Land Parcel `0 is not located in a groundwater Source Protection Zone (SPZ).

2.4.7 Under the Water Framework Directive, the Environment Agency's local River Basin Management Plan classifies groundwater chemical quality beneath the site as' poor quality'.

2.4.8 Information provided by the EA indicates that there are records for one active licensed groundwater abstraction within 2 km of the site. This is detailed in the table below:

Table 2.5: Licensed Groundwater Abstractions

Licence Holder	Approx. Distance and Direction from Site	Source	Use
Hanson Quarry Products Europe Ltd	1288 m south-east	Thames Groundwater (First and Second Terrace Deposits)	Transfer between sources

Surface Water

2.4.9 There are two watercourses within 2 km of Land Parcel 10 which are classified within a River Basin Management Plan published by the EA under the European Water Framework Directive (2000). A list of readily identifiable nearby watercourses and water bodies is as follows:

Table 2.6: Nearby Watercourses and Water Bodies

Watercourse / Body	Quality Classification (2019)	Approx. Distance and Direction from Site
Evenlode (Glyme to Thames)	Poor/Fail	1100 m east
Thames (Evenlode to Thames)	Moderate/Fail	1700 m east
Minor watercourse on field boundary	N/A	On site

2.4.10 Information provided by the EA indicates that there are records of two active licensed surface water abstractions within 1 km radius. The details of these are as follows:

Table 2.7: Licensed Surface Water Abstractions

Licence Holder	Use	Approx. Distance and Direction from Site
Vanbrugh Unit Trust	Bladon Dam: Hydroelectric Power Generation	910 m north-east
Vanbrugh Unit Trust	Transfer Between Sources	968 m north-east

2.4.11 Information provided by the EA indicates that Land Parcel 10 is not within an identified risk area for river and coastal flooding.

Ecologically Sensitive Sites

2.4.12 Natural England data indicates that other than being in a Nitrate Vulnerable Zone for surface water (Evenlode (Glyme to Thames) NVZ) there are no other ecologically sensitive sites, that constitute environmental receptors as defined within Table 1 of the DEFRA Environmental Protection Act 1990: Part 2A - Contaminated Land Statutory Guidance (2012), located on the land parcel.

2.4.13 Approximately 660 m north-east of Land parcel 10 is a Site of Special Scientific Interest (SSSI) identified as Blenheim Park.

2.4.14 Within a 1 km radius of Land Parcel 10 there are three areas of Designated Ancient Woodland (Pinsley Wood, Burleigh Wood and Bladon Heath).

2.4.15 The land immediately east is designated as Oxford Green Belt.

Radon

2.4.16 According to the Indicative Atlas of Radon in England and Wales published by the Health Protection Agency (part of Public Health England) and the British Geological Survey, the site located in an area where between 3 % and 5 % of properties exceed the Radon Action Level and basic radon protection measures would be required for new development. Radon can be a risk to human health from inhalation of radioactive elements. The risk posed outside of buildings is negligible, however due to pressure differences accumulation of radon gas can accumulate within buildings creating a greater level of risk to occupants through prolonged exposure.

2.4.17 Due to the nature of the proposed development it is unlikely that there will be any regularly occupied buildings forming part of the proposals therefore there is not considered to be a significant risk posed from radon to the solar farm development of Land Parcel 10.

Coal Authority

2.4.18 The Interactive Map Viewer on the Coal Authority website indicates that the site is not located in a coal mining reporting area.

Non-Coal Mining

2.4.19 BGS sources indicate that Land Parcel 10 is not located in an area of recorded non-coal mining (vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities including ball clay, jet, black marble, graphite and chert).

BGS Ground Stability Hazard Ratings

2.4.20 British Geological Survey Ground Stability Hazard ratings for the site are summarised as follows;

Table 2.8: BGS Ground Stability Hazard Ratings

Ground Stability Hazard	BGS Risk rating
Collapsible ground	Very Low
Compressible ground	Negligible
Ground dissolution	Negligible - Low
Landslide	Very Low
Running sand	Negligible – Very Low
Shrinking or swelling clay	Negligible - Low

2.5 Authorised Processes and Pollution Incidents

Landfills and Waste Sites

2.5.1 Data provided by the EA, Local Authority and BGS indicates that there are no recorded licensed or known historical or current landfill sites or waste sites located within 500 m of Land Parcel 10.

Environmental Permits

2.5.2 EA and Local Authority data indicates that there are no processes regulated by an Environmental Permit (under the Environmental Permitting Regulations (2010)) within 500 m of Land Parcel 10.

COMAH Sites

2.5.3 There are no records of any operations under the Control of Major Accident Hazards (COMAH) Regulations (1999), located within 500 m of Land Parcel 10.

Pollution Incidents

2.5.4 EA data indicates that there are no records of ‘major’ or ‘significant’ pollution incidents within 500 m of Land Parcel 10.

2.6 Unexploded Ordnance

2.6.1 CIRIA Report C681 (Stone et al (2009)) outlines recommendations for dealing with the potential risk associated with the legacy of Unexploded Ordnance Risk, largely relating to WWII bombing and military sites.

2.6.2 Reference to the Zetica Unexploded Bomb Risk mapping indicates that the site is in an area of low potential risk from Unexploded Bombs. As the site is not within an area of known military history, in general accordance with CIRIA Report no further consideration of Unexploded Ordnance is considered necessary.

3 Outline Conceptual Site Model

3.1 Background

3.1.1 An outline conceptual site model (CSM) consists of an appraisal of the *source-pathway-receptor* 'contaminant linkages' which is central to the approach used to determine the existence of 'contaminated land' according to the definition set out under Part 2A of the Environmental Protection Act 1990. For a risk to exist (under Part 2A), all three of the following components must be present to facilitate a potential 'pollutant linkage'.

- **Source** referring to the source of contamination (Hazard).
- **Pathway** for the contaminant to move/migrate to receptor(s).
- **Receptor** (Target) that could be affected by the contaminant(s).

3.1.2 Receptors include human beings, controlled waters and buildings / structures. The National Planning Policy Framework, used to address contaminated land through the planning process, follows the same principles as those set out under Part 2A.

3.1.3 As part of the assessment the potential risks to receptors for potential source is given one of the following classification:

- **Low risk** - it is considered unlikely that issues within the category will give rise to significant harm to identified receptors.
- **Moderate risk** - it is possible, but not certain that issues within the category will give rise to significant harm to receptors.
- **High risk** - there is a high potential that issues within the category will give rise to significant harm to identified receptors.

3.2 Potential Pollutant Linkages

3.2.1 Each stage of the potential pollutant linkage sequence has been assessed individually on the basis of information obtained during the site reconnaissance and desk study exercise and are discussed in the following section.

Potential Contaminant Sources

On Site – Current

3.2.2 No current on site potentially contaminative land uses have been identified.

On Site – Historical

3.2.3 No historical on site potentially contaminative land uses have been identified.

Off-site – Current

3.2.4 No current off-site potentially contaminative land uses have been identified.

Off-Site – Historical

3.2.5 Historical maps indicate a former kiln and quarry approximately 180 m south dating from circa the 1880s. This does not appear to have been associated with any large scale industrial activity although may represent a localised source of Polycyclic Aromatic Hydrocarbons (PAHs) from historical burning of materials or Made Ground remaining from the former structures. A corn mill was also present approximately 200 m north-east, last shown as operational on maps of 1955, possible residual soil contaminants may include oils/fuels.

Potential Pathways

3.2.6 There is the potential for gaseous or liquid/leachable contaminants of concern (if present) from historical off-site sources to migrate on site via granular horizons of the Superficial Deposits or weathered limestone or fractures in intact limestone of the Cornbrash Formation or through shallow groundwater. These may impact on proposed structures, as described below, through direct contact however anticipated groundwater flow direction base upon site topography is likely to be towards the east i.e. away from Land Parcel 10 and in the direction of the River Evenlode.

Potential Receptors

Controlled Waters

3.2.7 The localised superficial deposits and outcropping bedrock strata comprise Secondary A Aquifers which represent a potential significant receptor, however the absence of identified abstractions and source protection zones within 500 m would indicate low sensitivity to contamination.

3.2.8 The nearest surface water feature is a minor drain/stream located alongside the field boundary crossing the land parcel. The nearest surface water feature classified within a River Basin Management Plan is approximately 1 km east. Given the distance involved and no evidence of contamination sources on site, surface water has been discounted as being a significant receptor.

Human Health

3.2.9 Following construction of the The Project it is not envisaged that there will be any full-time occupancy of the site however it is expected that there will be periodic requirements for maintenance work/checks. The risks posed to maintenance workers are considered to be limited given the anticipated short-term period of contact with site soils.

3.2.10 The absence of any identified on-site contamination sources would indicate that there is no risk posed to off-site receptors.

3.2.11 The assessment does not consider the risk to construction/demolition workers during redevelopment. These risks will be managed through appropriate Health and Safety (H&S) legislation include the H&S At Work Act (1974) and CDM regs (2015).

Solar Farm Structures

3.2.12 Another potential receptor are the foundations, cables and steel structures likely to be placed within the shallow soils (and possibly through Made Ground). There is a risk of chemical attack on concrete from elevated sulphates within any Made Ground present or certain natural strata or corrosion / degradation of steel anchors, cables from a high water table or acidic ground conditions.

Sensitive Land Use

3.2.13 There are a number of designated Ancient Woodland sites bordering or in close proximity to this land parcel. The construction/operational phases of the proposed solar farm development are considered unlikely to adversely impact on these off-site receptors although any changes in long-term shallow drainage patterns from the installation of the banks of PV panels cannot be discounted.

3.3 Outline Conceptual Site Model

3.3.1 An outline CSM has been developed on the basis of the site reconnaissance and desk study. The CSM is used to identify potential sources, pathways and receptors (i.e. potential pollutant linkages) on site post development and is summarised in the table below.

Table 3.1: Outline Conceptual Site Model

Potential Source	Contaminants of Concern	Via	Potential Pathways	Linkage Potentially Active?	Receptors	Qualitative Risk Rating	Notes
On site natural strata	Chemical attack (sulphates), acidic soils	Chemical Attack	Direct contact, shallow groundwater	✓	Steel foundations, concrete slabs	Low	anticipated bedrock strata unlikely to contain elevated sulphate levels, Groundwater depth unknown.
Off-site – historical: Corn Mill Kiln and old quarry	Metals, hydrocarbons, PAHs	Groundwater	Direct contact/ingestion	×	Future site users	N/A	No anticipated post construction regular occupation or occupied buildings.
			Inhalation of volatiles	×	Future site users	N/A	
Off-site – Old quarry	Carbon dioxide and methane	Ground Gas	Inhalation of ground gas	×	Future site users	N/A	No anticipated post construction regular occupation or buildings.
			Explosive risks	×	Future site users	N/A	
				×	Future site Structures		

Note × The Qualitative Risk Rating does not consider the potential for the pathway to be active. In the event that a Moderate or High Qualitative Risk Rating is identified further assessment is recommended.

3.3.2 Based on the identified potential sources and the site setting there is not considered to be a significant risk to ecological receptors, crops/vegetation or archaeological receptors.

4 Conclusions and Recommendations

4.1 Preliminary Geo-Environmental Conclusions

4.1.1 The PRA undertaken has not identified any potentially significant potential source-pathway-receptor linkages relating to the proposed temporary solar farm development of Land Parcel 10.

4.1.2 The presence of unknown soil contamination being discovered during construction works cannot be discounted entirely and it is recommended that if encountered works should stop and specialist advice obtained on how to proceed.

4.2 Preliminary Geotechnical Conclusions

4.2.1 The available geological data suggests that superficial River Terrace Deposits of the Summertown-Radley Sand and Gravel Member are expected to be present across the central and north-east portion of the land parcel. The available geological data suggests that bedrock strata of the Cornbrash Formation and Forest Marble Formation outcrop across the remainder of the site, the former likely to comprise predominantly limestones and the latter interbedded mudstones and limestones.

4.2.2 Preliminary geological data indicates the shallow soils at the site may range from fine to coarse grained and this will over differing bearing characteristics. In addition to this the rock head profile is unknown. Ground Investigation is required to inform the foundation type and embedment depths required. The setting on predominantly limestone bedrock presents a possible ground instability risk presented by dissolution of the soluble limestone and the formation of natural cavities, and there is a recorded location of such a feature (solution pipe) in the Cornbrash Formation approximately 54 m north.

4.2.3 BGS records indicate the risk rating for dissolution of soluble rocks to be negligible to very low for most of Land Parcel 10 which means that few dissolution features are likely to be present and the potential for difficult ground conditions or localised subsidence are at a level where they need not be considered. For the area of Cornbrash Formation strata in the east the risk rating is low which means that soluble rocks are present within the ground. Some dissolution features may be present and the potential for difficult ground conditions are at a level where they may be considered. Further assessment of the geological setting indicates no overlying predominantly cohesive cover where there may have been preferential historical drainage pathways for infiltrating rainwater and therefore more likely to result in formation of solution features in the Cornbrash Formation therefore the risk presented is still considered to be low and unlikely to impact on the proposed development.

5 References

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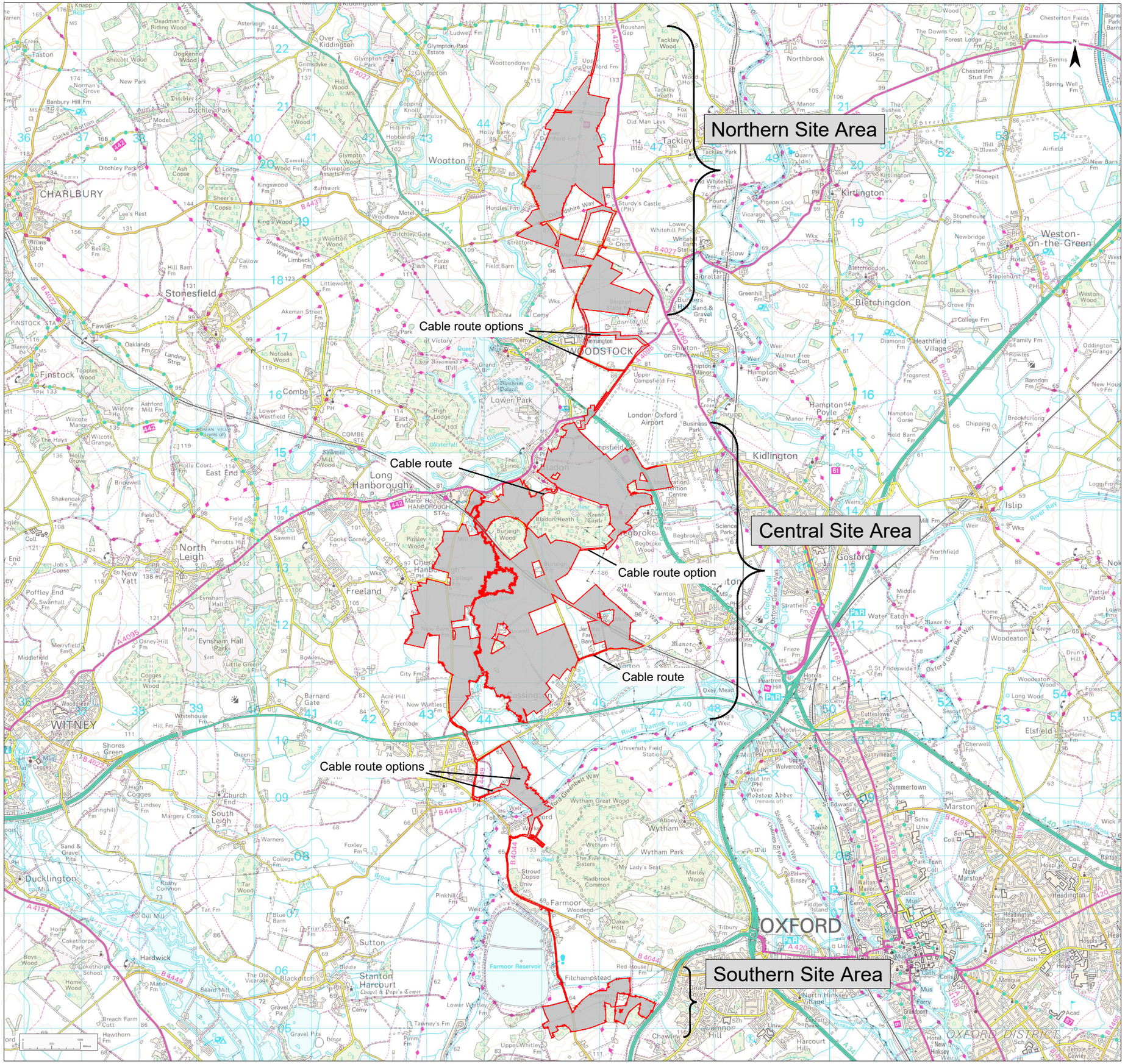
RPS (2023): Botley West Solar Farm, EIA Scoping Report, Ground Conditions Ref 230403_R_JER9429_BOTLEY WEST SOLAR FARM_Scoping Report v1 r2

Drawings
Drawing 1: Site Location Plans



Legend

Site Location and Order Limits

Project				Status		
Botley West Solar Farm						
Id.	Changes	Date	Name		Date	Name
				Edit	25.04.2024	V. Guskova
				Check	25.04.2024	H. Trabelsi
				Approval		
				Project-No		
				Drawing No		
A	Created	25.04.2024	VG	prj-01-0390		

CAD-data name: 240425 Botley West Masterplan Overview.dwg

Scale: 1:65000 at A3 DIM: m

Plan

Site Location and Order Limits Overview
Figure 1.1

Photovolt Development Partners GmbH
Kurfürstendamm 52
10707 Berlin, Germany

Annex A
PRA Methodology

PRA METHODOLOGY

INTRODUCTION

This report provides available factual data for the site obtained only from the sources described below and related to the site on the basis of the location provided by the client. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources. No responsibility can be accepted by RPS for inaccuracies in the data supplied by any other party.

This report is written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information and changes in legislation may necessitate a re-interpretation of the report in whole or in part after its original submission. The report is provided for sole use by the client and is confidential to them and their professional advisors. No reliance whatsoever is provided to any party other than the client unless otherwise agreed.

INFORMATION SOURCES

Current and Historical Land Use

This section establishes the former and current uses of the site, which could have caused contamination. Details of the site location, the current and proposed site uses have been provided by the client.

Information about the history of the site has been obtained through an inspection of historical maps at 1:10,000, 1:2,500 and 1:1,250 scales and historical aerial photographs (where available). The accuracy of maps cannot be guaranteed, and it should be recognised that different conditions on-site may have existed between, and subsequent to, the map survey dates.

Regulatory Records

Regulatory records including landfills, pollution incidents ('major' and 'significant' only), industry authorisations and licensed water abstractions are derived from information purchased from Groundsure Ltd (unless otherwise specified).

Environmental Setting

The geological sequence underlying the site and the approximate depths of strata are provided by maps published by the British Geological Survey (BGS) 1:50,000 scale and available borehole records held by the BGS.

The hydrogeological classification is obtained from Groundwater Vulnerability mapping by the BGS/EA/National Resources Wales (NRW). The vulnerability of groundwater is determined from this mapping and geological information.

The location of surface watercourses is obtained from an inspection of current OS maps. Flood risk details and information on groundwater Source Protection Zones are obtained from readily available EA/NRW information published on-line and supplied by Groundsure Ltd.

Details of sensitive ecosystems/habitats and coal mining areas are supplied by Natural England, Natural Resources Wales and Scottish Natural Heritage and the Coal Authority respectively via Groundsure Ltd and inspection of the MAGIC website.

Radon is a radioactive gas produced naturally by certain types of geology. This report uses the Indicative Atlas of Radon in England and Wales (2007) produced by the Health Protection Agency (HPA) and the British Geological Survey (BGS) to determine whether the site is located in an area at risk from radon gas. Where potential issues are identified, a site-specific radon report is obtained from the HPA and BGS to provide a more accurate estimate of the probability of the site being affected by radon gas ingress.

Annex B
Limitations of Assessment

General Notes

RPS Consulting Services Ltd

Phase 1 - Environmental Risk Assessment / Desk Study Environmental Review

1. A "desk study" means that no site visits have been carried out as any part thereof, unless otherwise specified.

1. This report provides available factual data for the site obtained only from the sources described in the text and related to the site on the basis of the location information provided by the Client.

2. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.

3. The accuracy of maps cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the various map surveys.

4. No sampling or analysis has been undertaken in relation to this desk study.

5. Any borehole data from British Geological Survey sources is included on the basis that: "The British Geological Survey accept no responsibility for omissions or misinterpretation of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation".

6. Where any data supplied by the Client or from other sources, including that from previous site investigations, have been used it has been assumed that the information is correct. No responsibility can be accepted by RPS for inaccuracies in the data supplied by any other party.

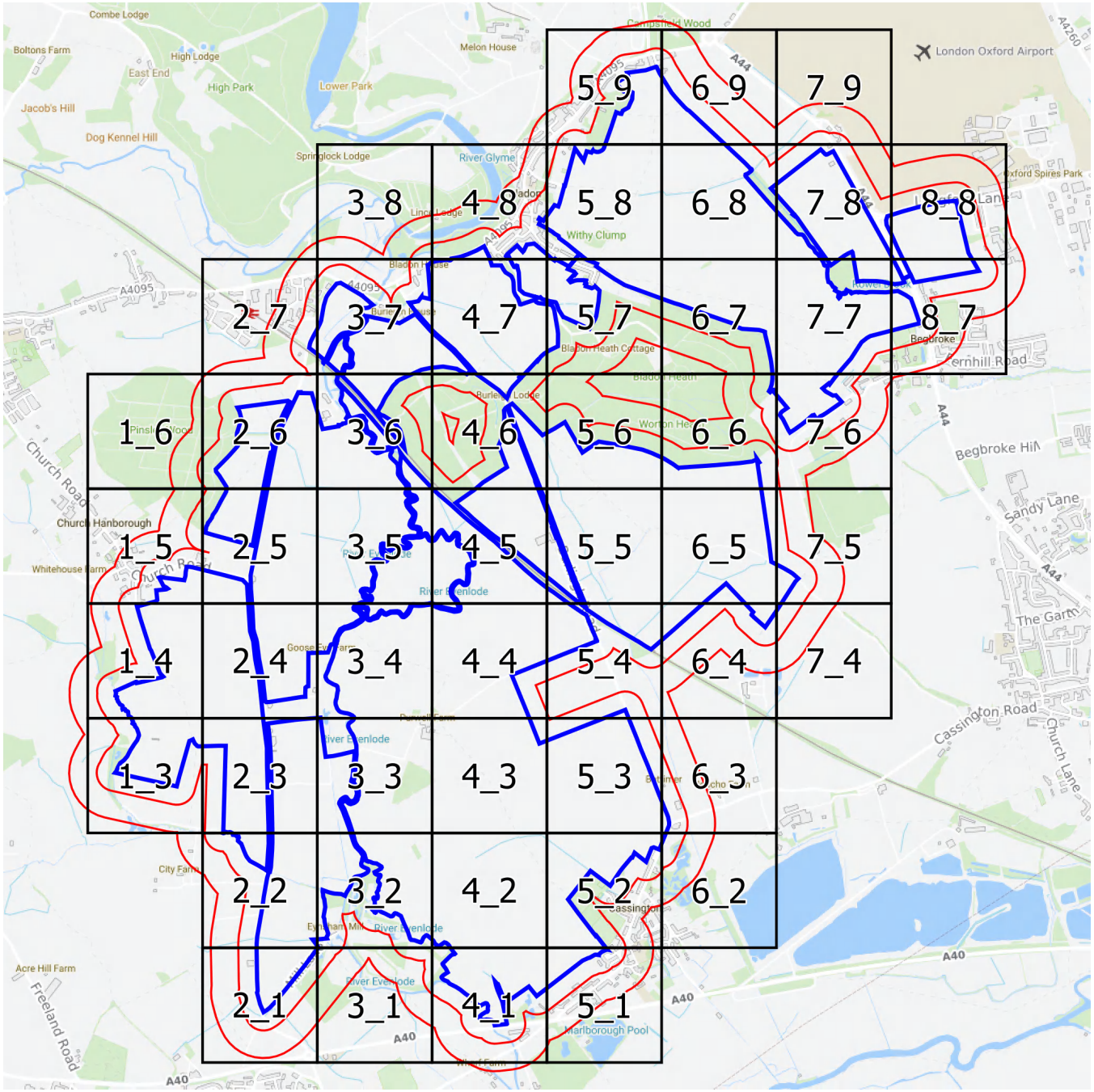
7. This report is prepared and written in the context of an agreed scope of work and should not be used in a different context. Furthermore, new information, improved practices and changes in legislation may necessitate a re-interpretation of the report in whole or in part after its original submission.

8. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the Client deemed to be granted on payment in full to the RPS Company by the Client of the outstanding amounts.

9. The report is provided for sole use by the Client and is confidential to them, their professional advisors, no responsibility whatsoever for the contents of the report will be accepted to any person other than the Client. [Unless otherwise agreed]

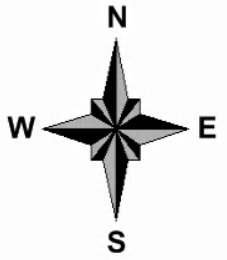
10. These terms apply in addition to the RPS "Standard Terms & Conditions" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms & Conditions the said Standard Terms & Conditions shall prevail.) In the absence of such a written contract the Standard Terms & Conditions will apply.

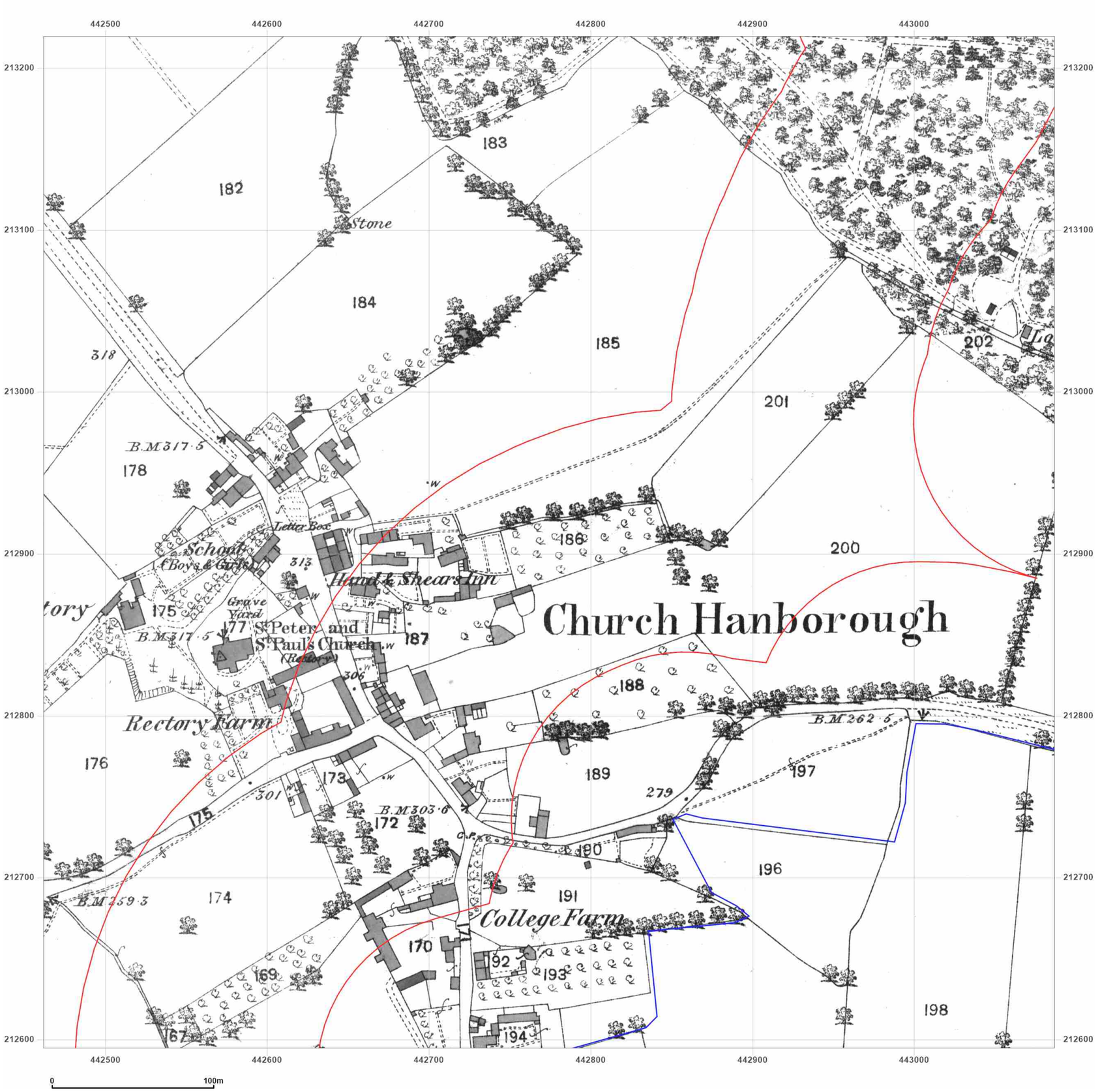
Annex C
Groundsure Insights
Historical Map Reports



Groundsure INSIGHTS

1:2,500 Scale Grid Index





Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_5
Grid Ref: 442774, 212907

Map Name: County Series

Map date: **1881**

Scale: 1:2,500

Printed at: 1:2,500

N
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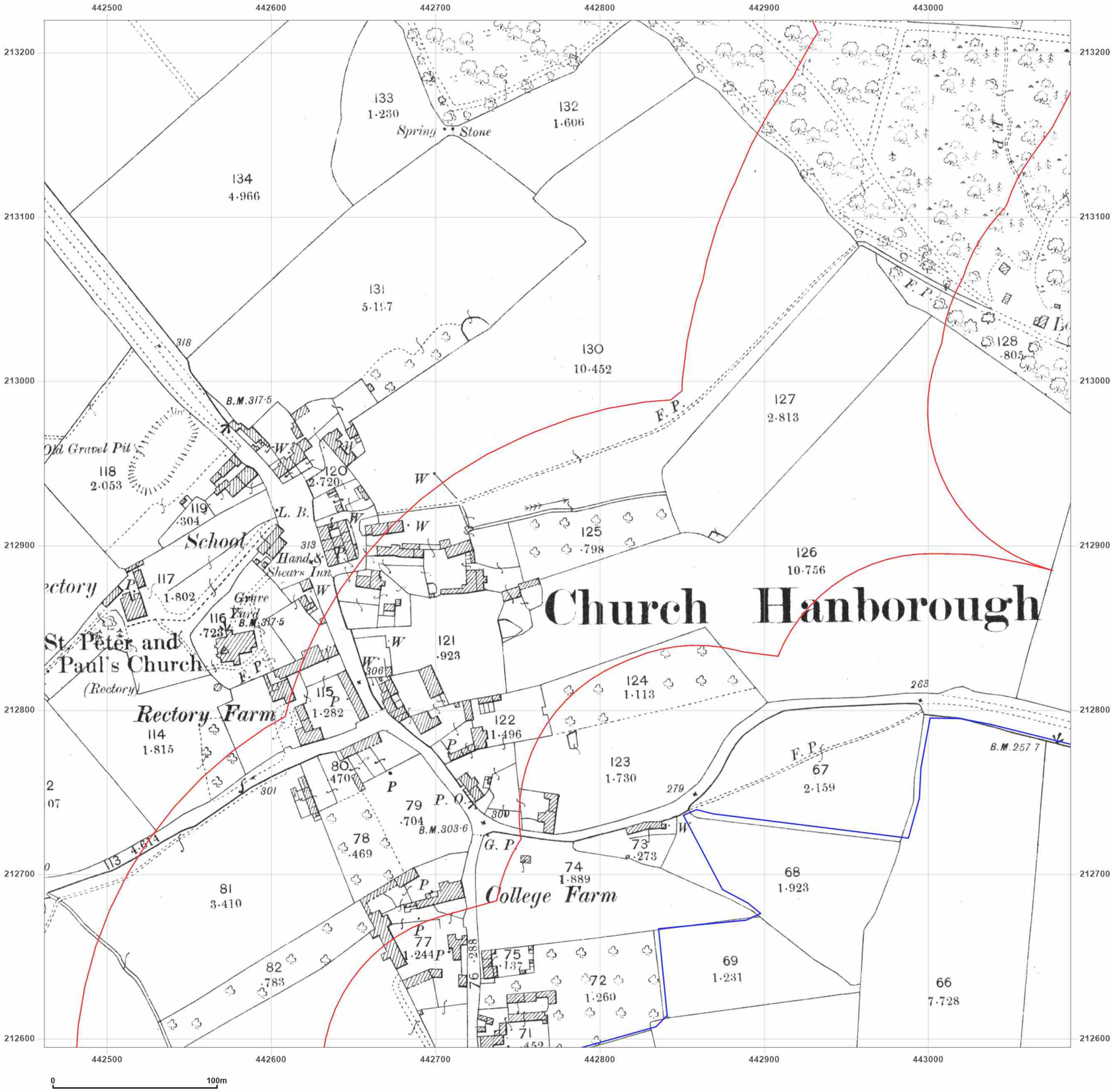
Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at: [redacted]



Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_5
Grid Ref: 442774, 212907

Map Name: County Series

Map date: **1899**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
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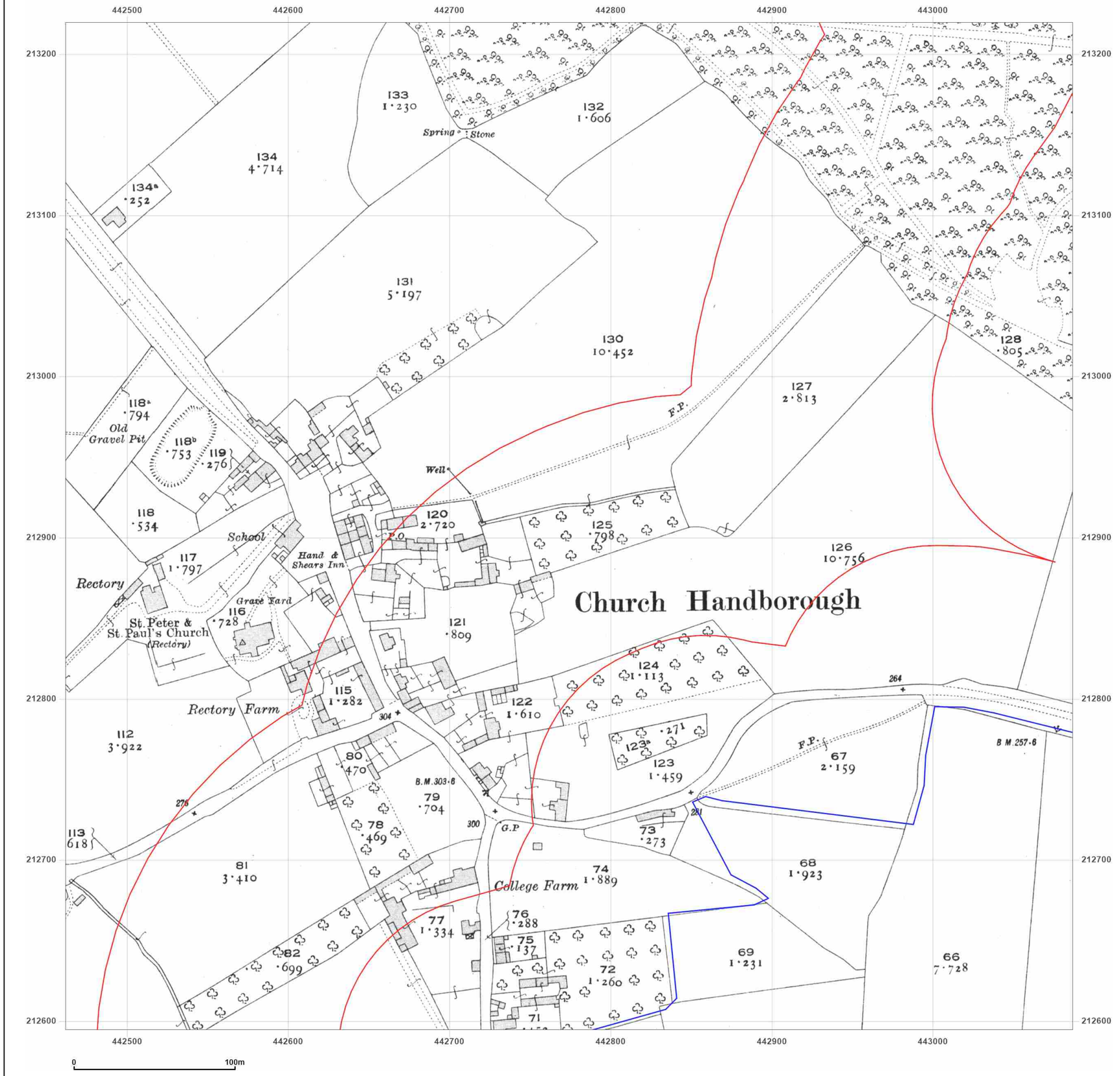

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_5
Grid Ref: 442774, 212907

Map Name: County Series

Map date: **1921**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

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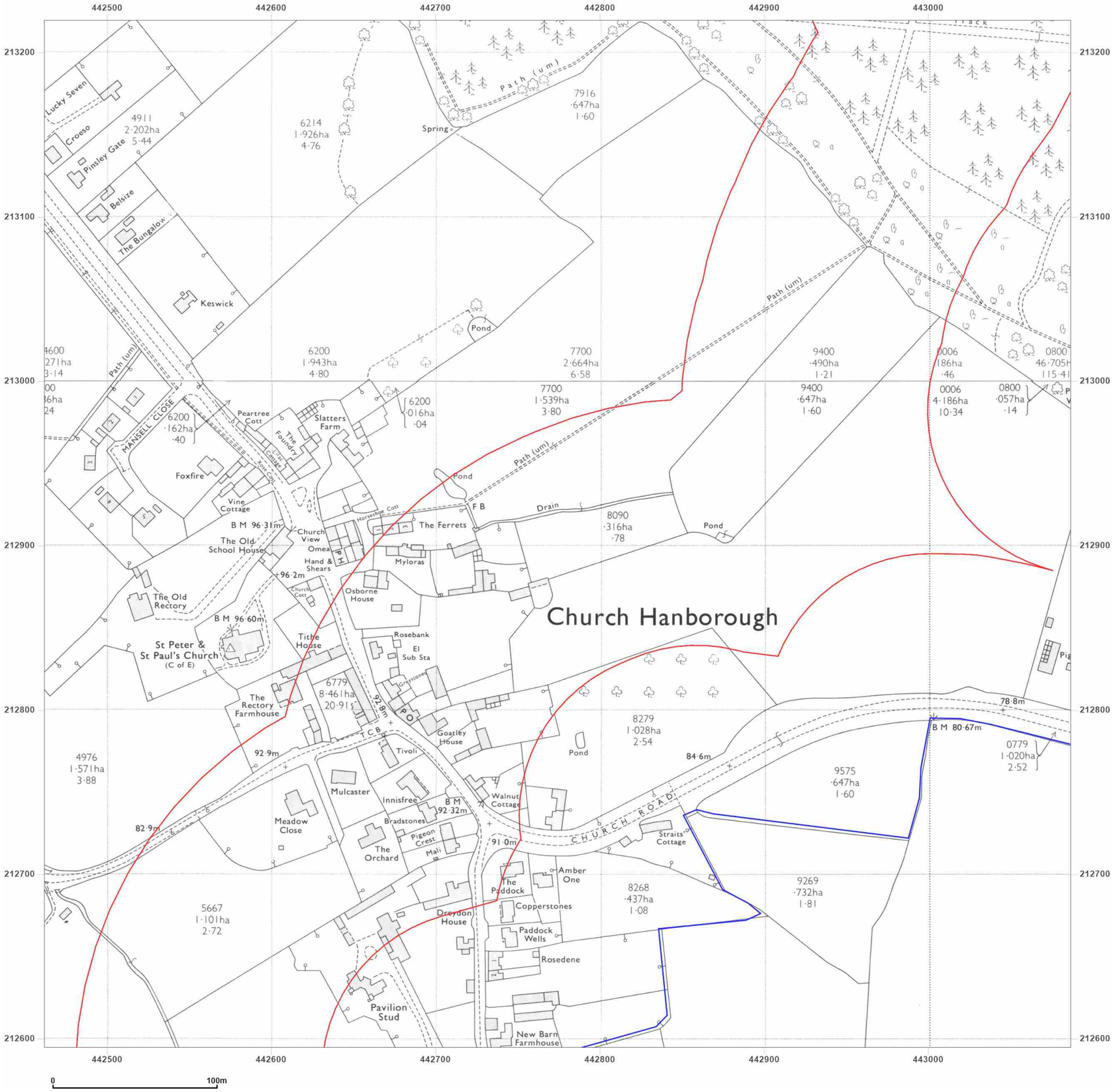

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_5
Grid Ref: 442774, 212907

Map Name: National Grid

Map date: **1974-1975**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1972
Revised 1972
Edition N/A
Copyright 1975
Levelled 1971

Surveyed 1972
Revised 1972
Edition N/A
Copyright 1974
Levelled 1971

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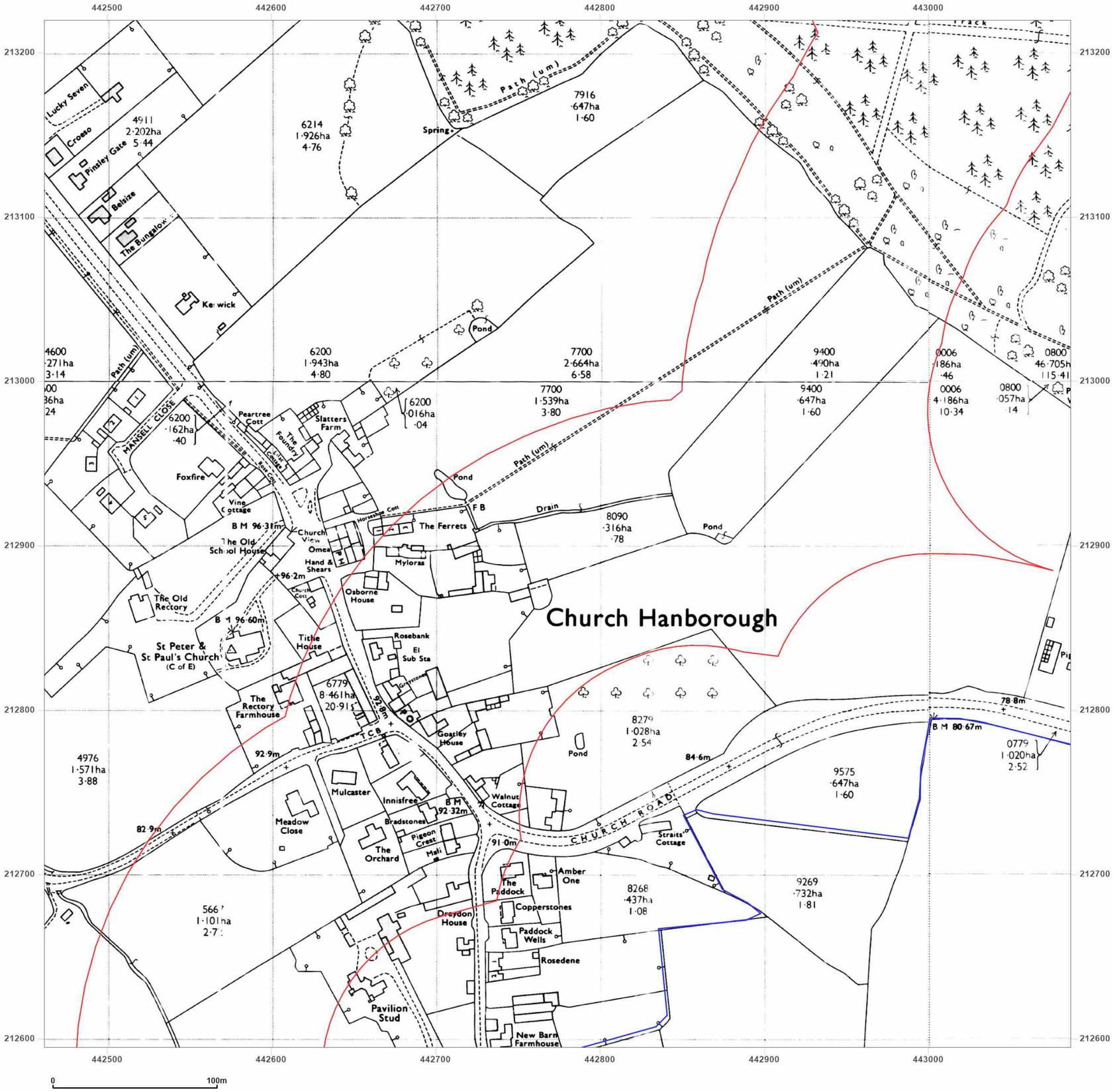

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_5
Grid Ref: 442774, 212907

Map Name: National Grid

Map date: **1974-1975**

Scale: 1:2,500

Printed at: 1:2,500

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

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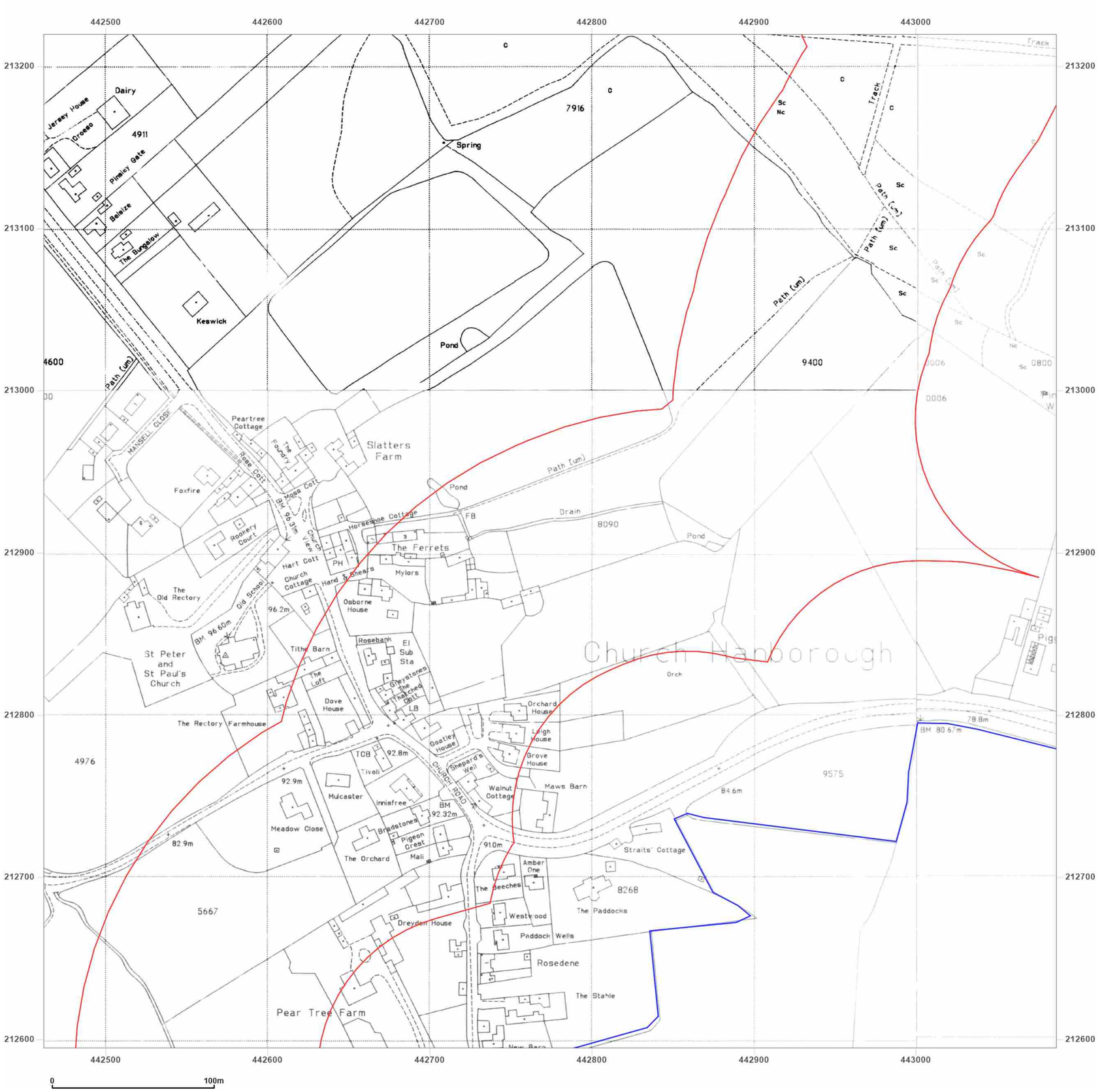
Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_5
Grid Ref: 442774, 212907

Map Name: National Grid

Map date: **1994**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed 1994
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Copyright N/A
Levelled N/A

Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 25 May 2022

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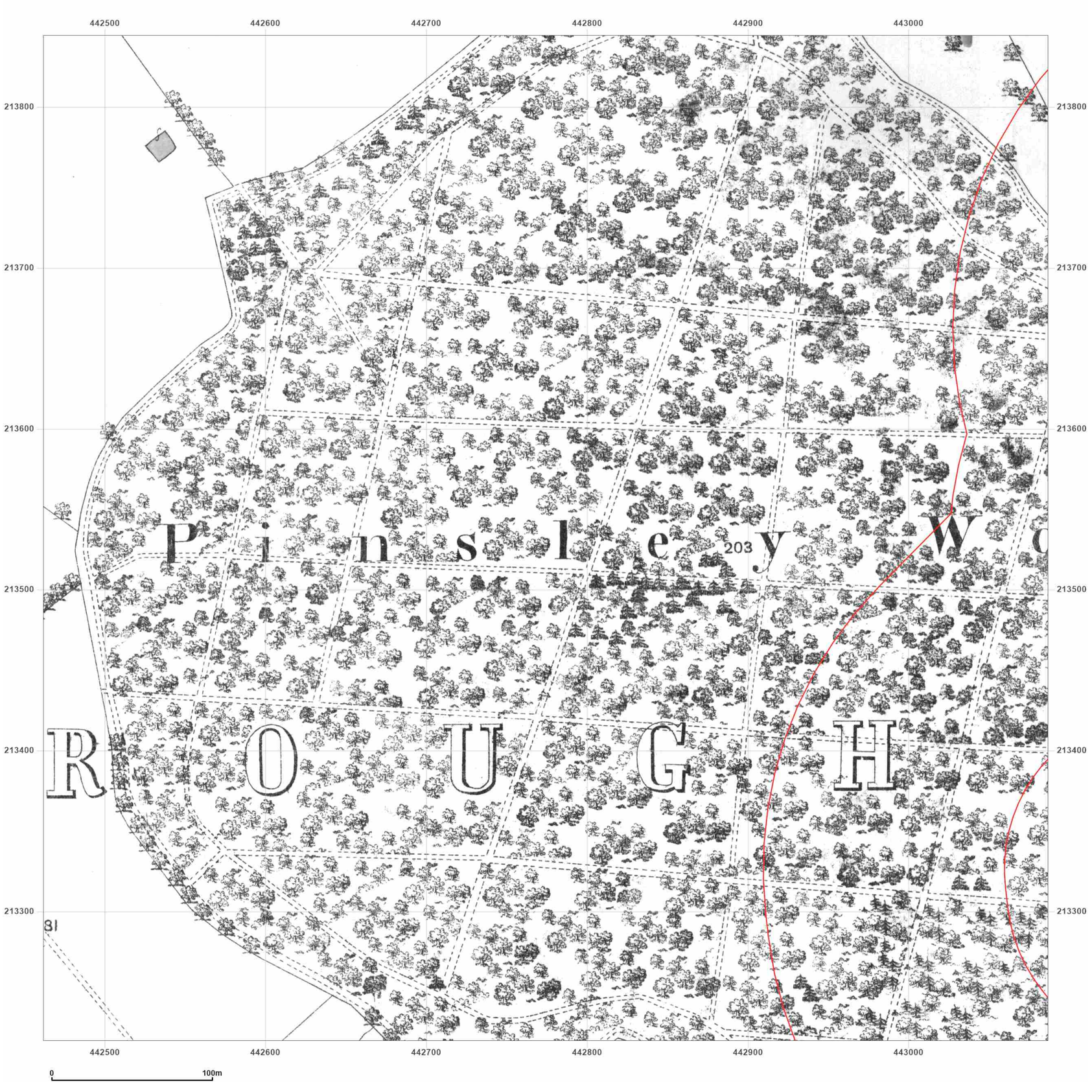

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_6
Grid Ref: 442774, 213532

Map Name: County Series

Map date: **1881**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 25 May 2022

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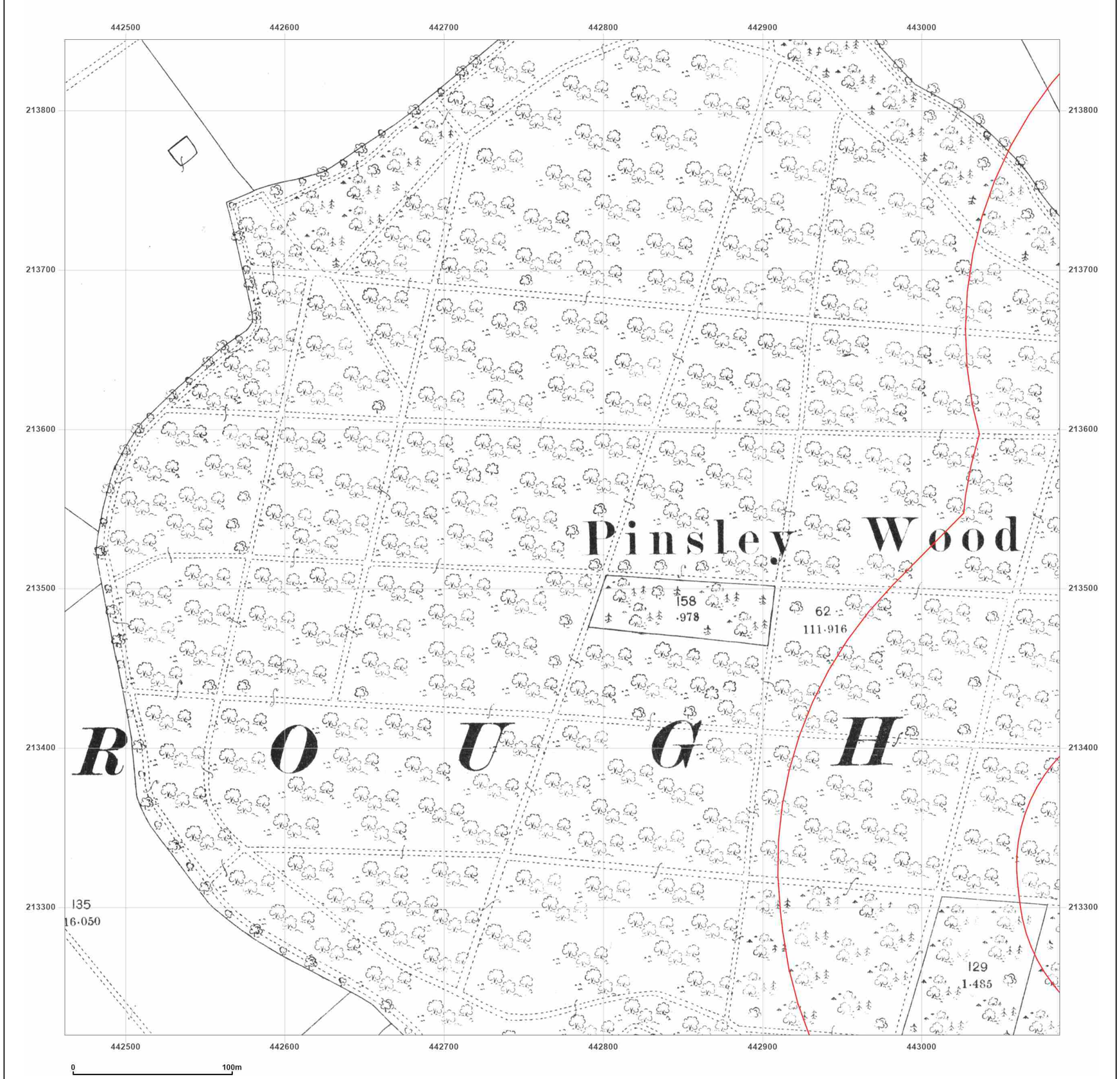

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_6
Grid Ref: 442774, 213532

Map Name: County Series

Map date: **1899**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 25 May 2022

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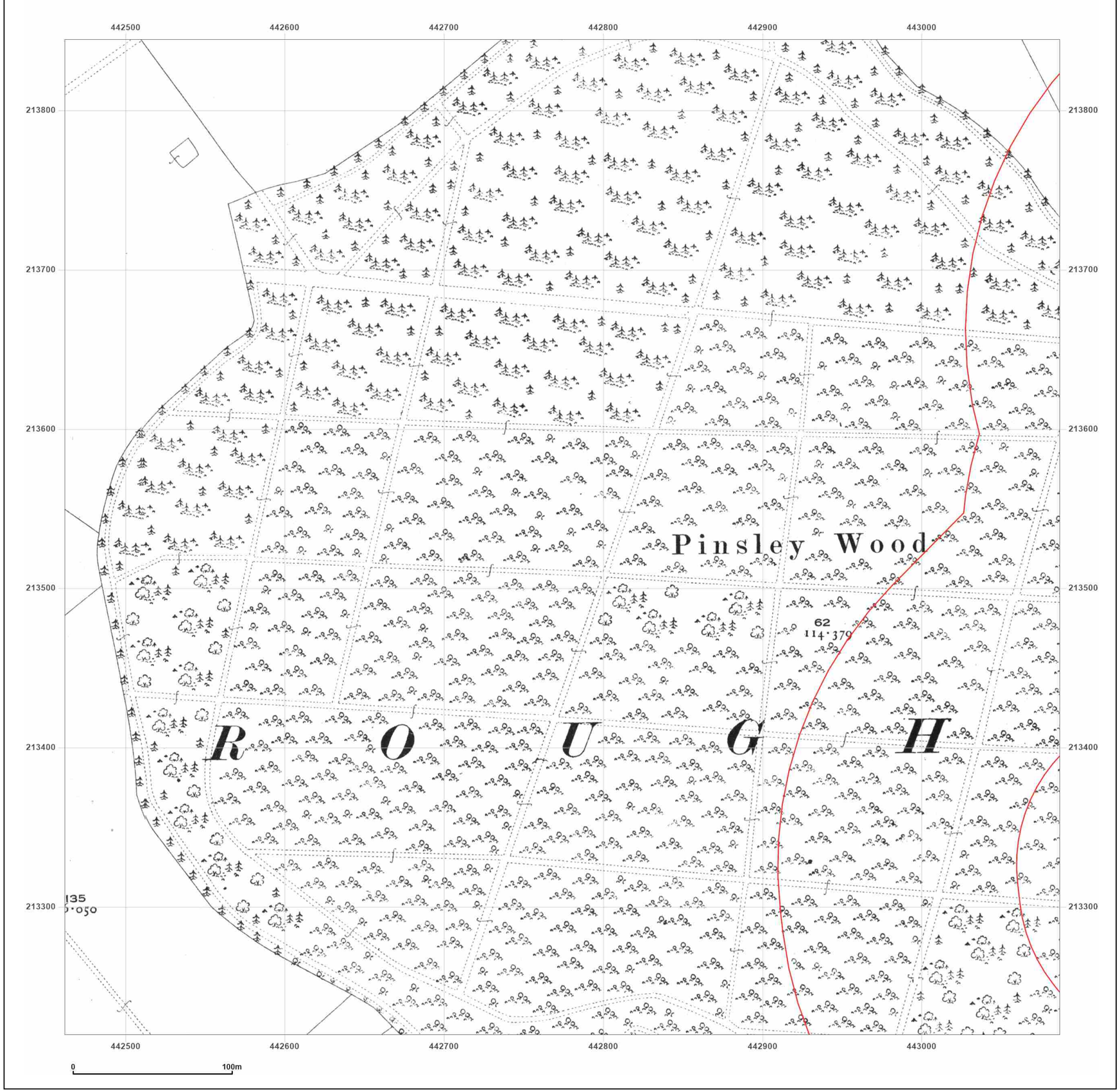

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_6
Grid Ref: 442774, 213532

Map Name: County Series

Map date: **1921**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

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W: www.groundsure.com

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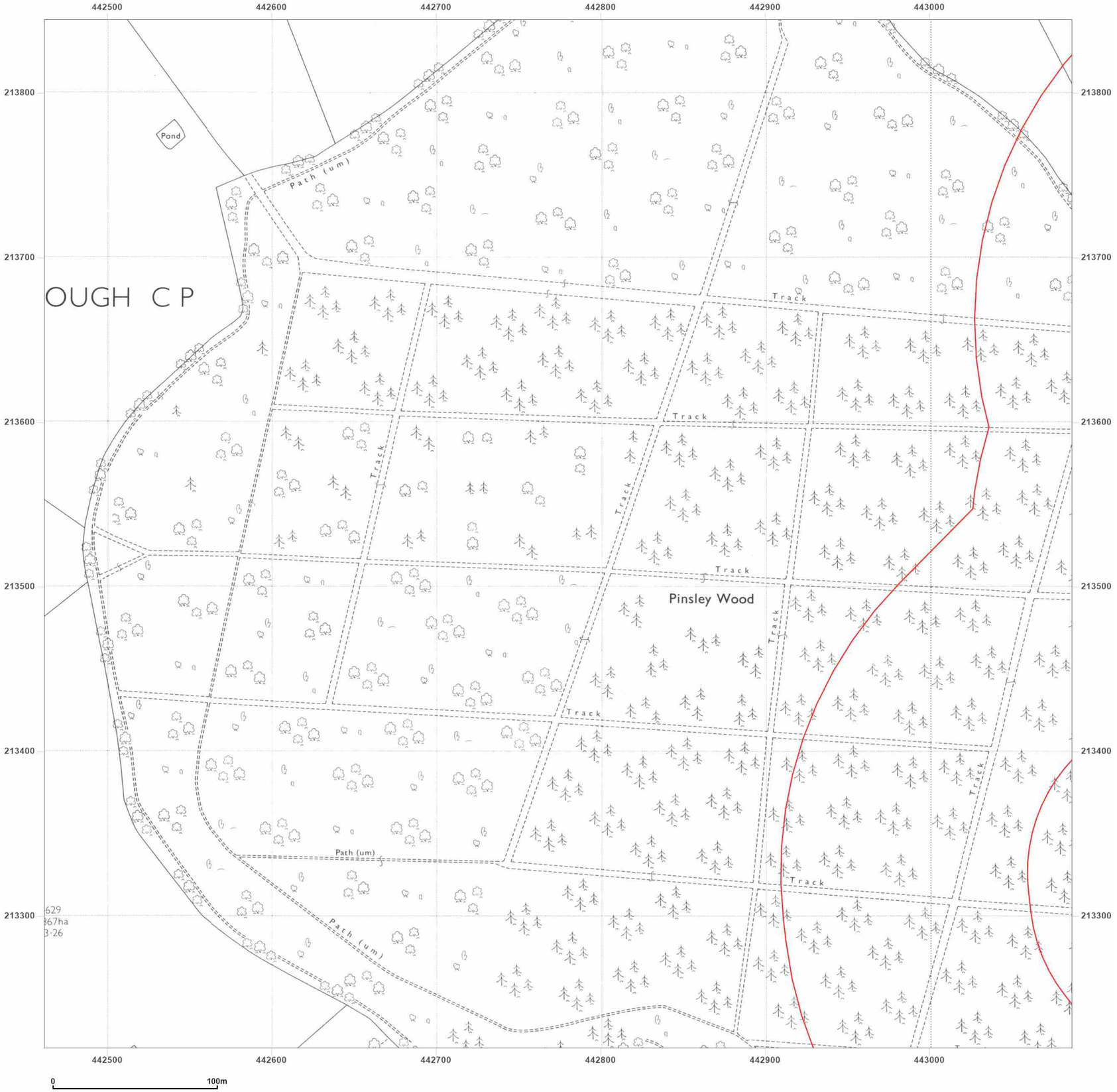

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_6
Grid Ref: 442774, 213532

Map Name: National Grid

Map date: **1975**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1972
Revised 1972
Edition N/A
Copyright 1975
Levelled 1971

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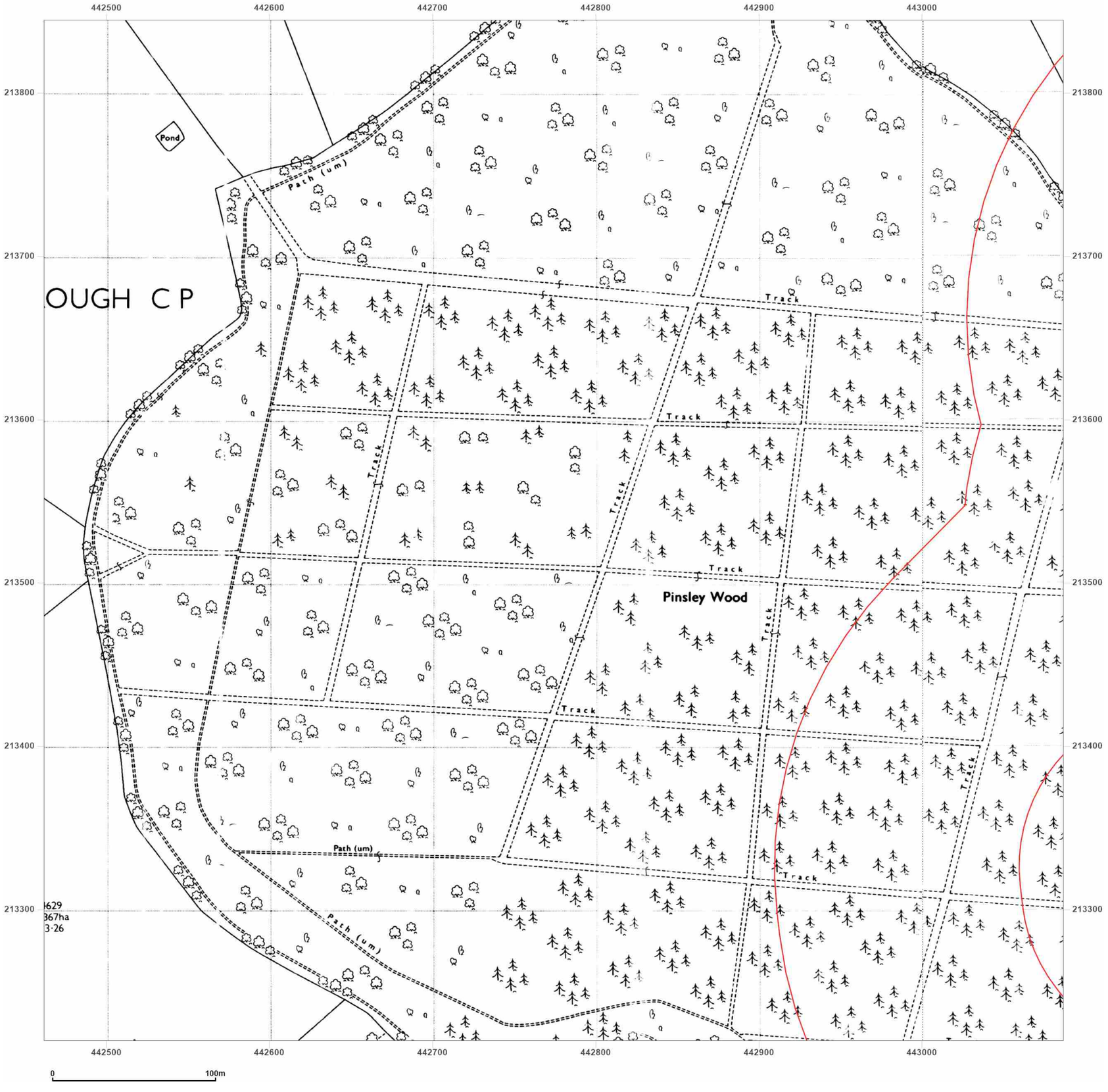
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_6
Grid Ref: 442774, 213532

Map Name: National Grid

Map date: **1975**

Scale: 1:2,500

Printed at: 1:2,500

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

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Production date: 25 May 2022

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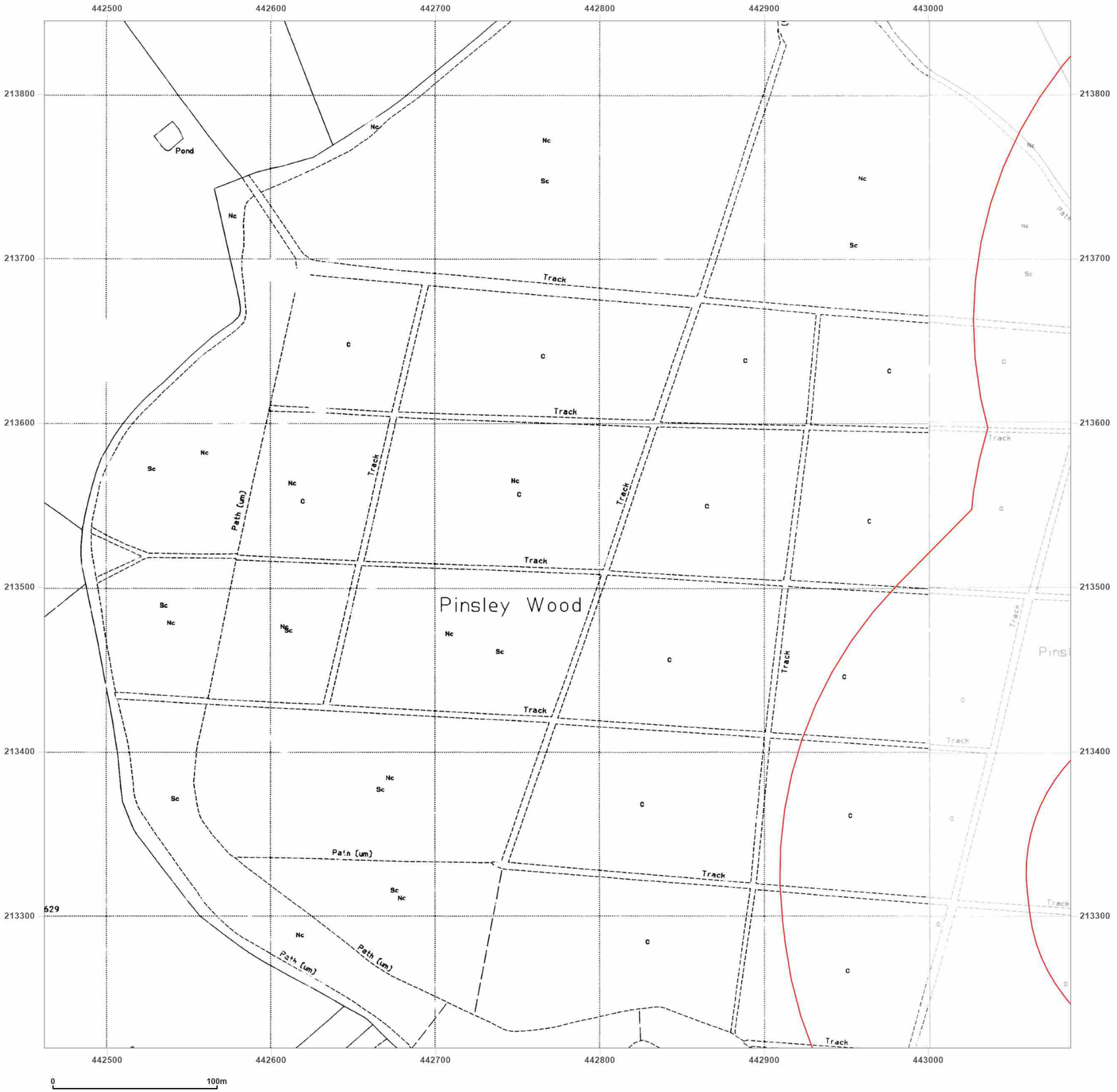

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_1_6
Grid Ref: 442774, 213532

Map Name: National Grid

Map date: **1994**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

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W: www.groundsure.com

Production date: 25 May 2022

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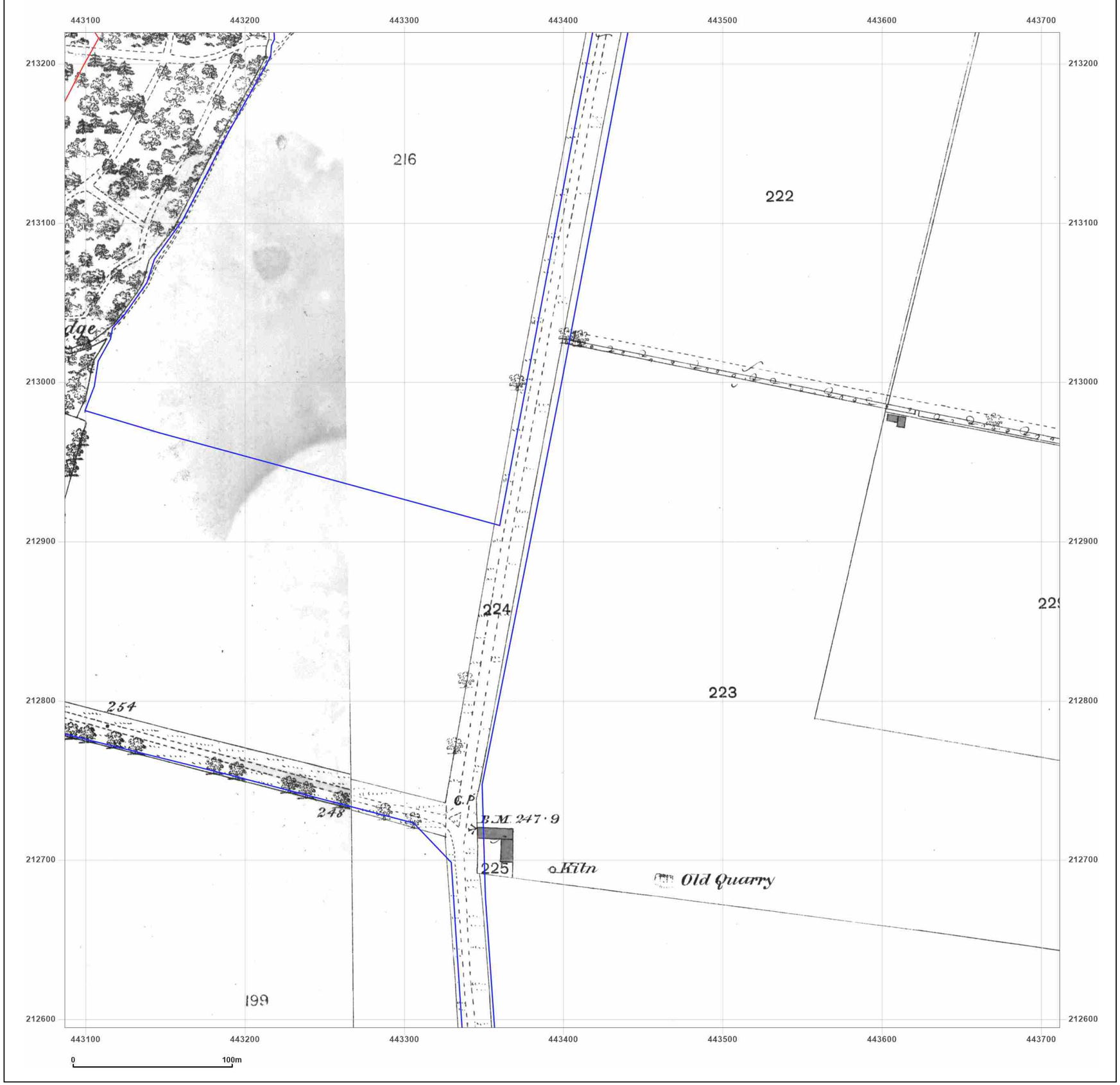

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_5
Grid Ref: 443399, 212907

Map Name: County Series

Map date: **1881**

Scale: 1:2,500

Printed at: 1:2,500

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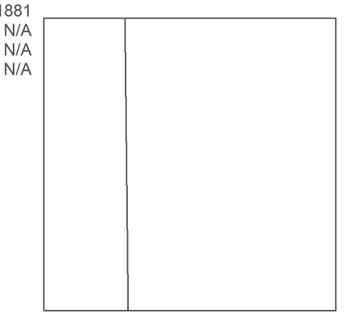
Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

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T: 08444 159000
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Production date: 25 May 2022

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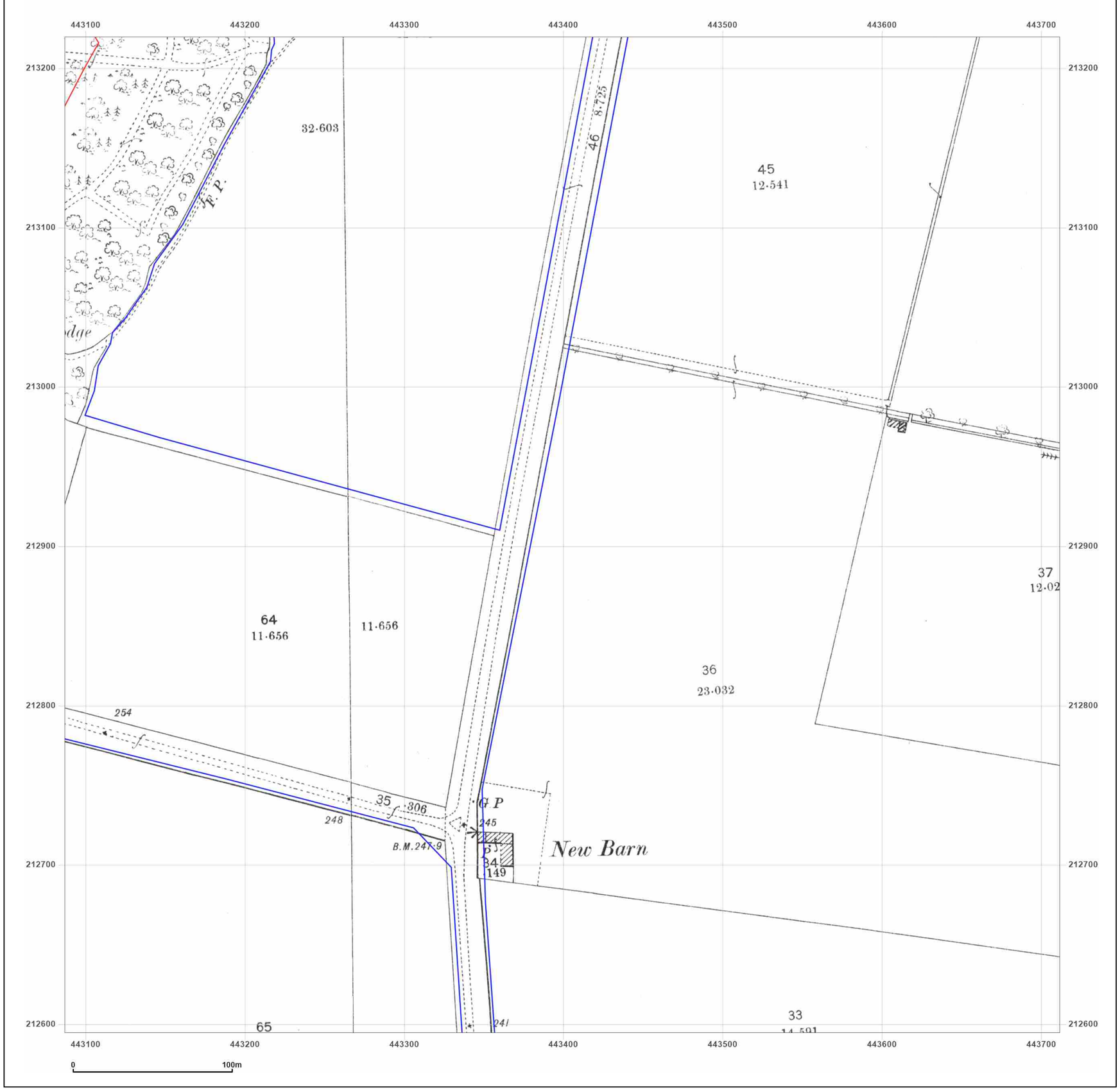

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_5
Grid Ref: 443399, 212907

Map Name: County Series

Map date: **1899**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

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T: 08444 159000
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Production date: 25 May 2022

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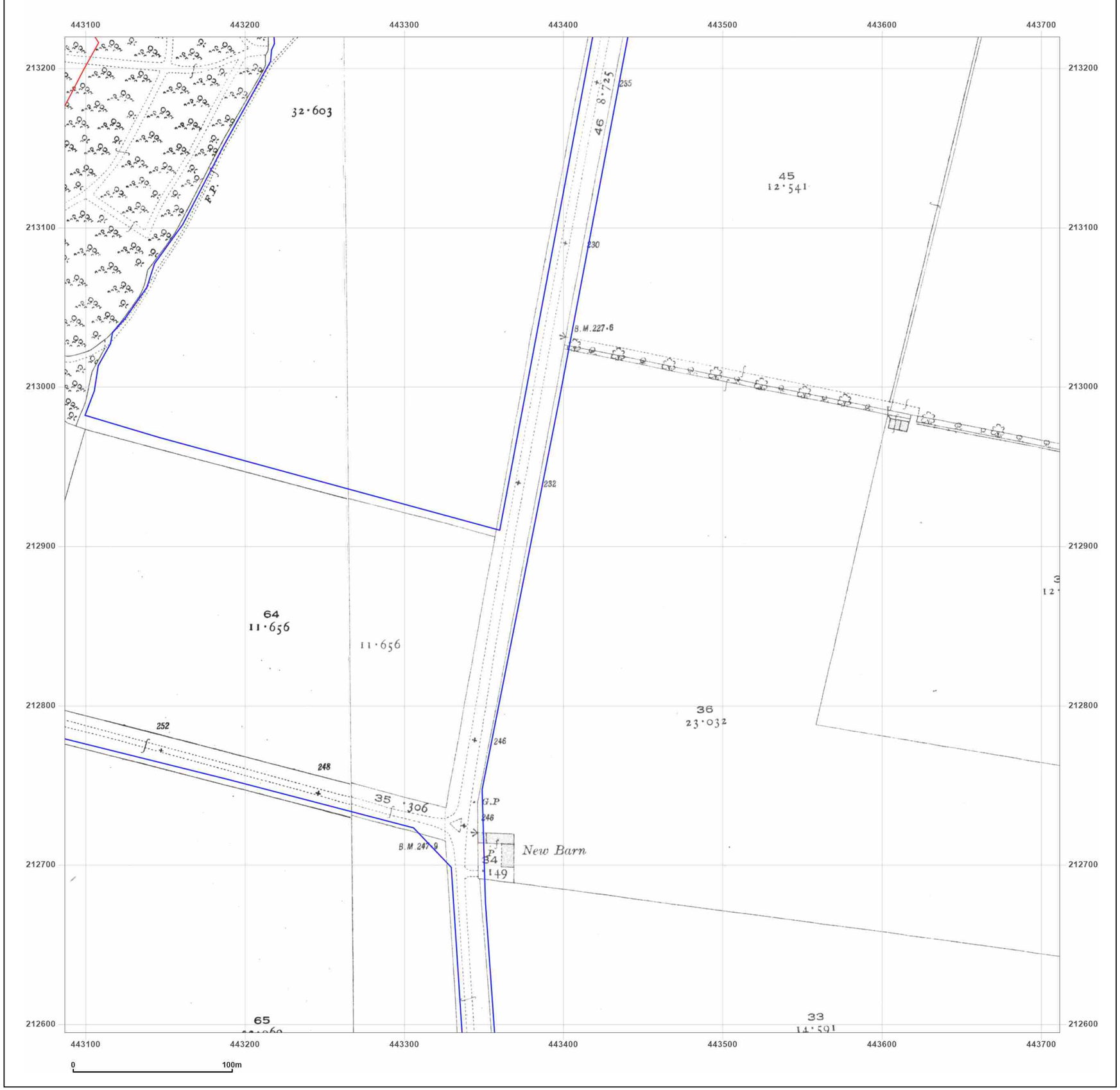

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_5
Grid Ref: 443399, 212907

Map Name: County Series

Map date: **1921**

Scale: 1:2,500

Printed at: 1:2,500

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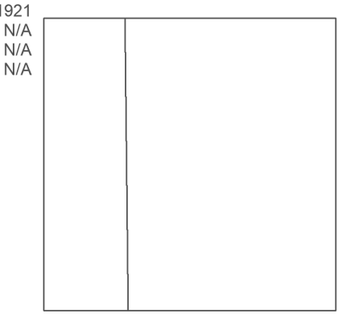
Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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E: info@groundsure.com
W: www.groundsure.com

Production date: 25 May 2022

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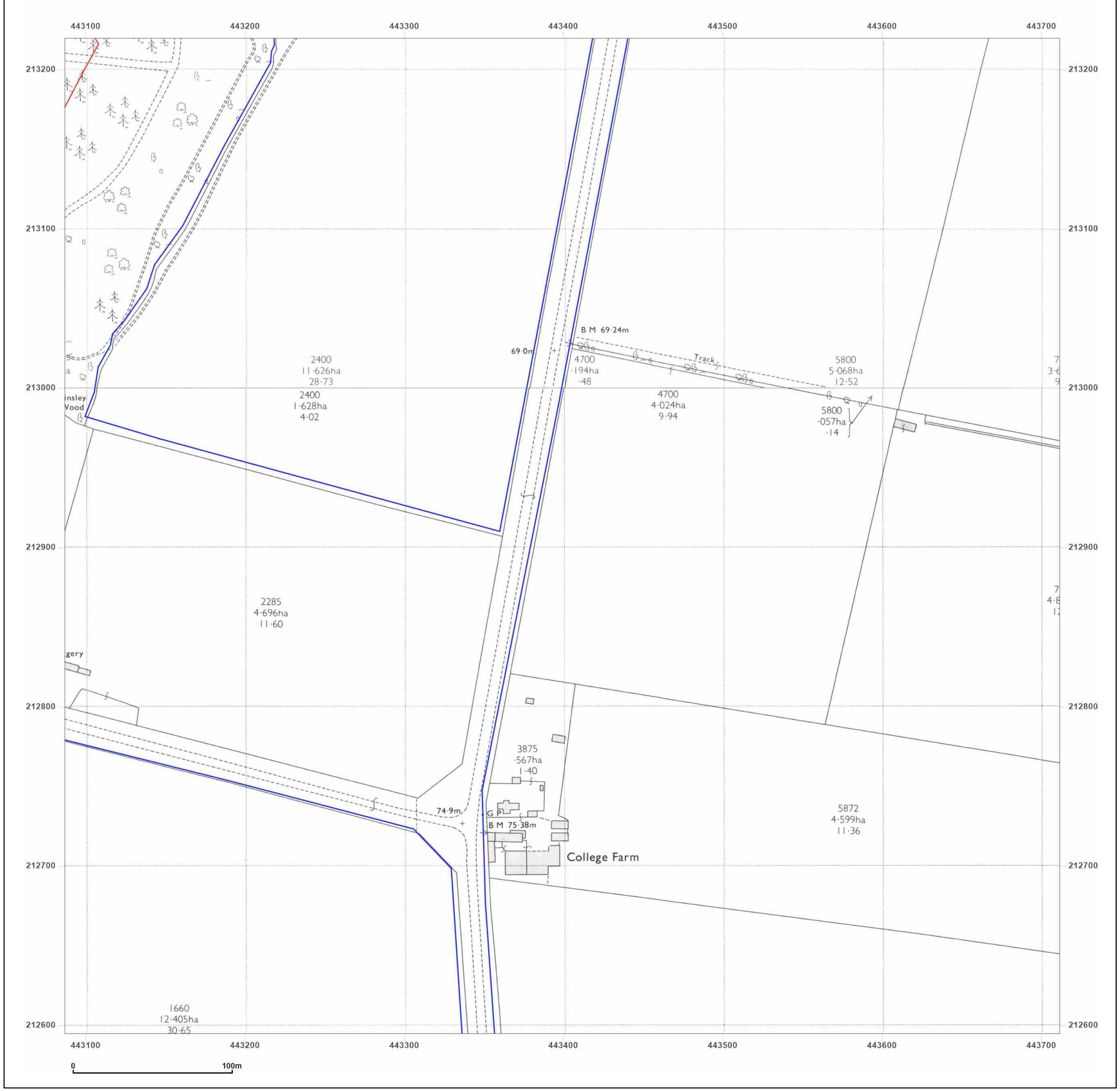

Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_5
Grid Ref: 443399, 212907

Map Name: National Grid

Map date: **1974-1975**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1972
Revised 1972
Edition N/A
Copyright 1975
Levelled 1971

Surveyed 1972
Revised 1972
Edition N/A
Copyright 1974
Levelled 1971

Powered by

Produced by
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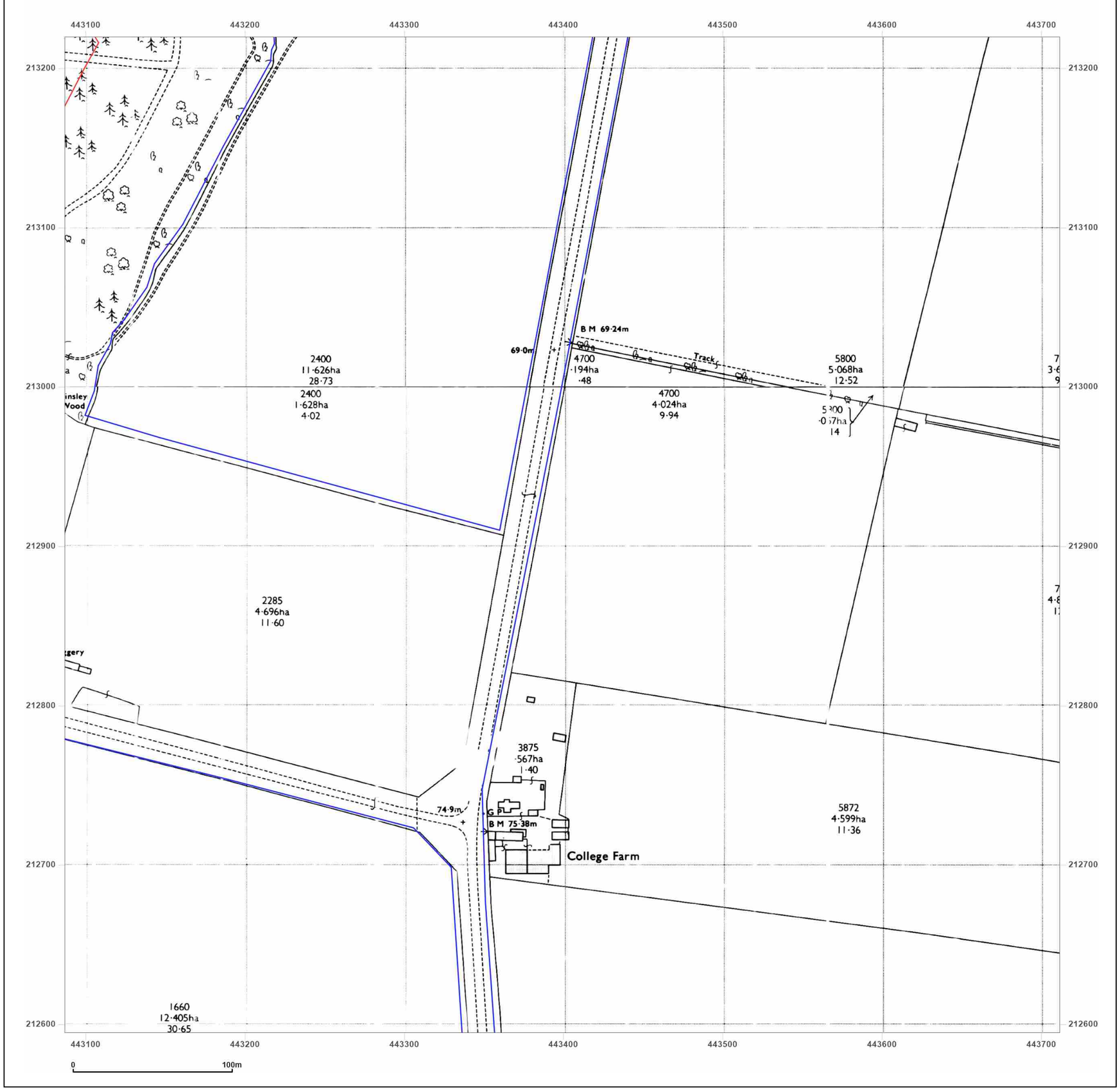
Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_5
Grid Ref: 443399, 212907

Map Name: National Grid

Map date: **1974-1975**

Scale: 1:2,500

Printed at: 1:2,500

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

Surveyed N/A
Revised N/A
Edition N/A
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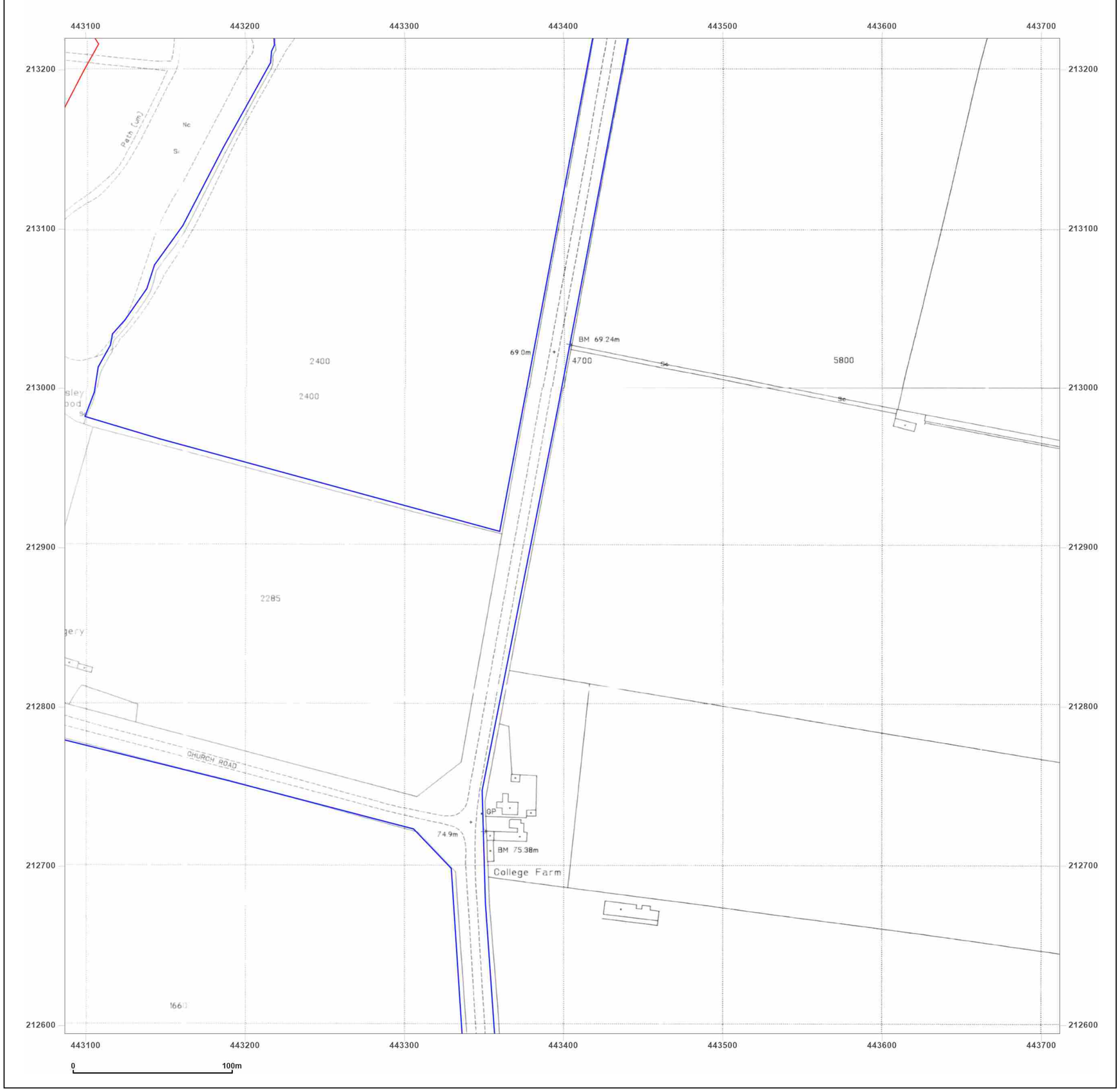


Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_5
Grid Ref: 443399, 212907

Map Name: National Grid

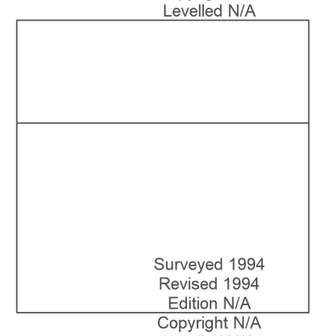
Map date: **1994**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

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Groundsure Insights
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E: info@groundsure.com
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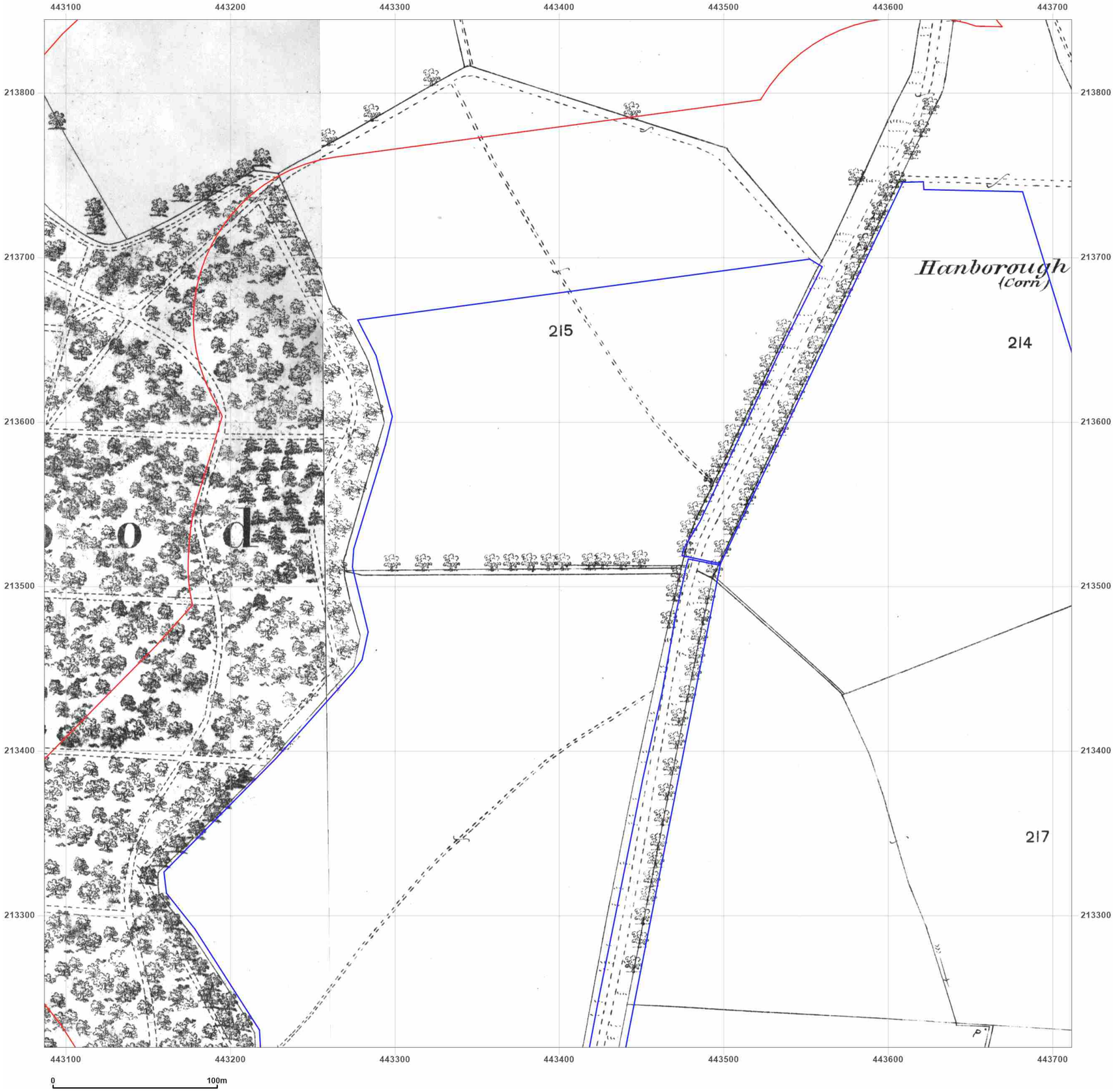
Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_6
Grid Ref: 443399, 213532

Map Name: County Series

Map date: **1881**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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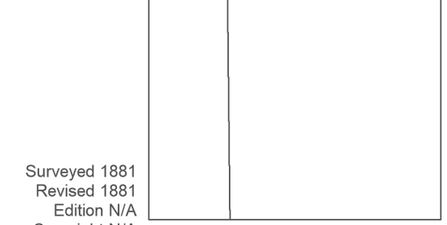

Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1881
Revised 1881
Edition N/A
Copyright N/A
Levelled N/A

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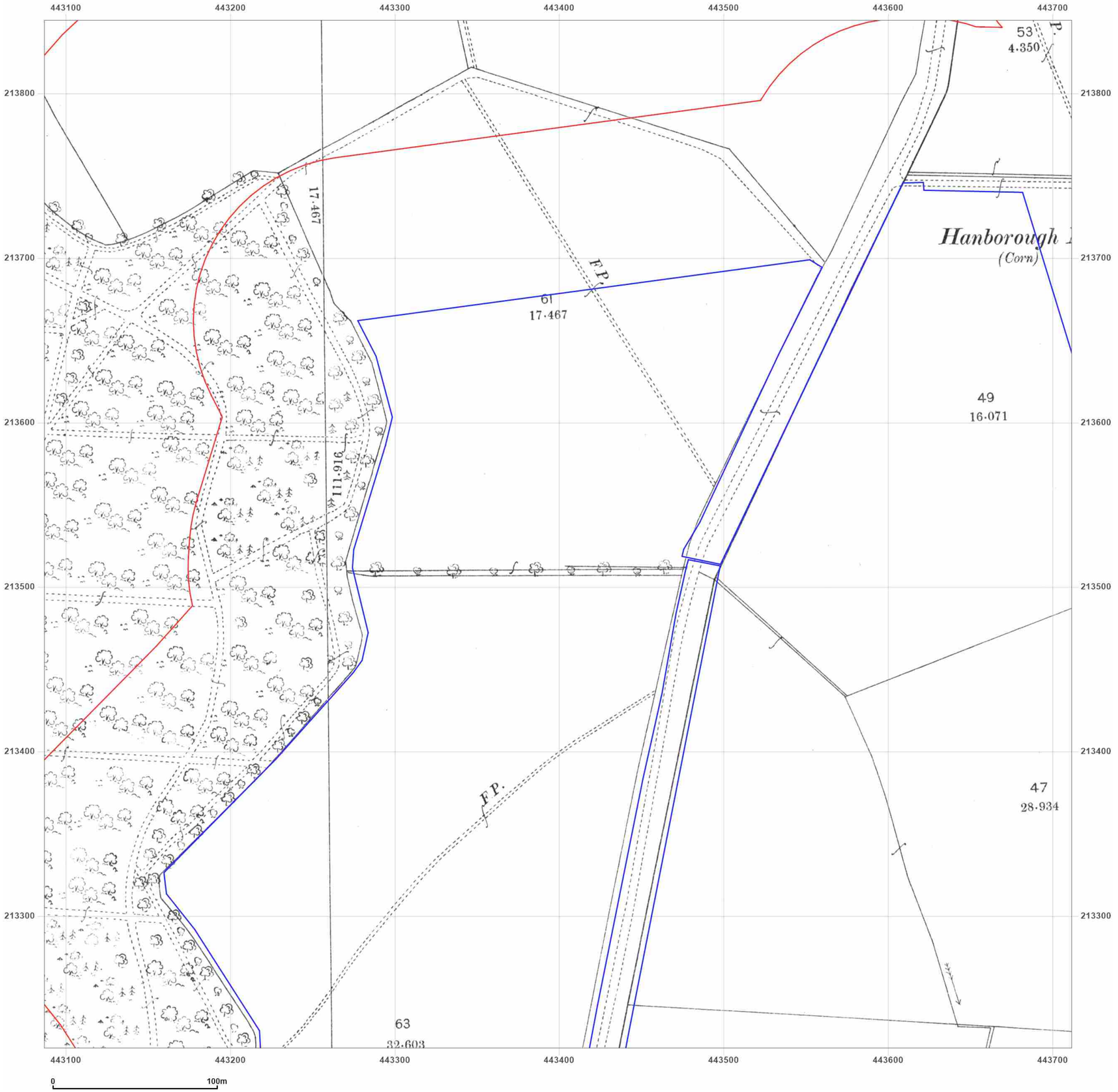
Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_6
Grid Ref: 443399, 213532

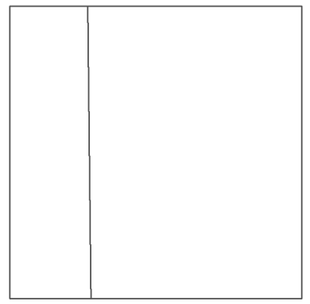
Map Name: County Series

Map date: **1899**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S



Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

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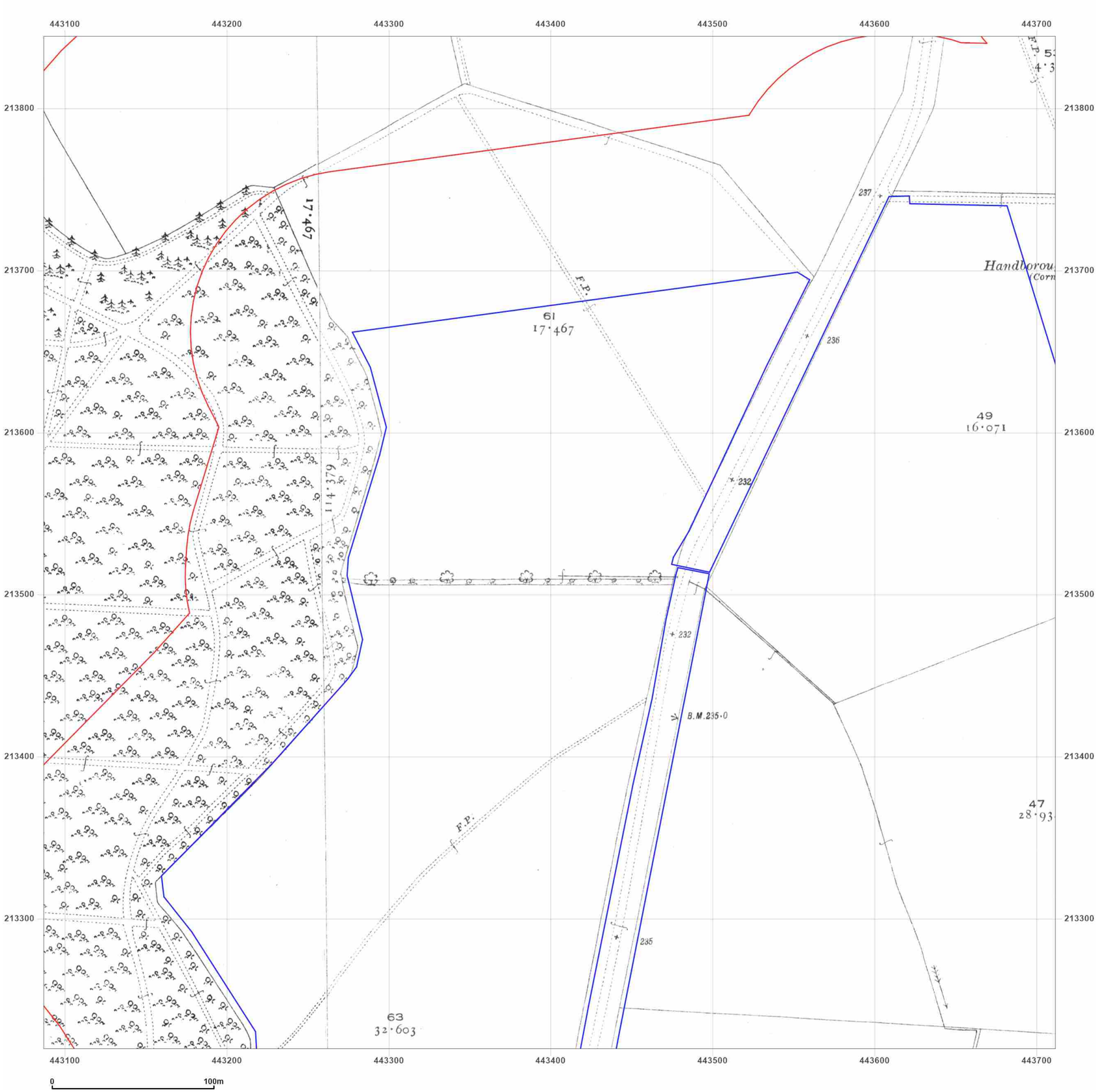
Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_6
Grid Ref: 443399, 213532

Map Name: County Series

Map date: **1921**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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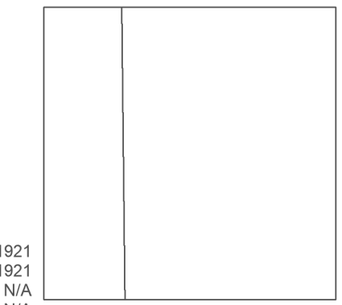

Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1921
Revised 1921
Edition N/A
Copyright N/A
Levelled N/A

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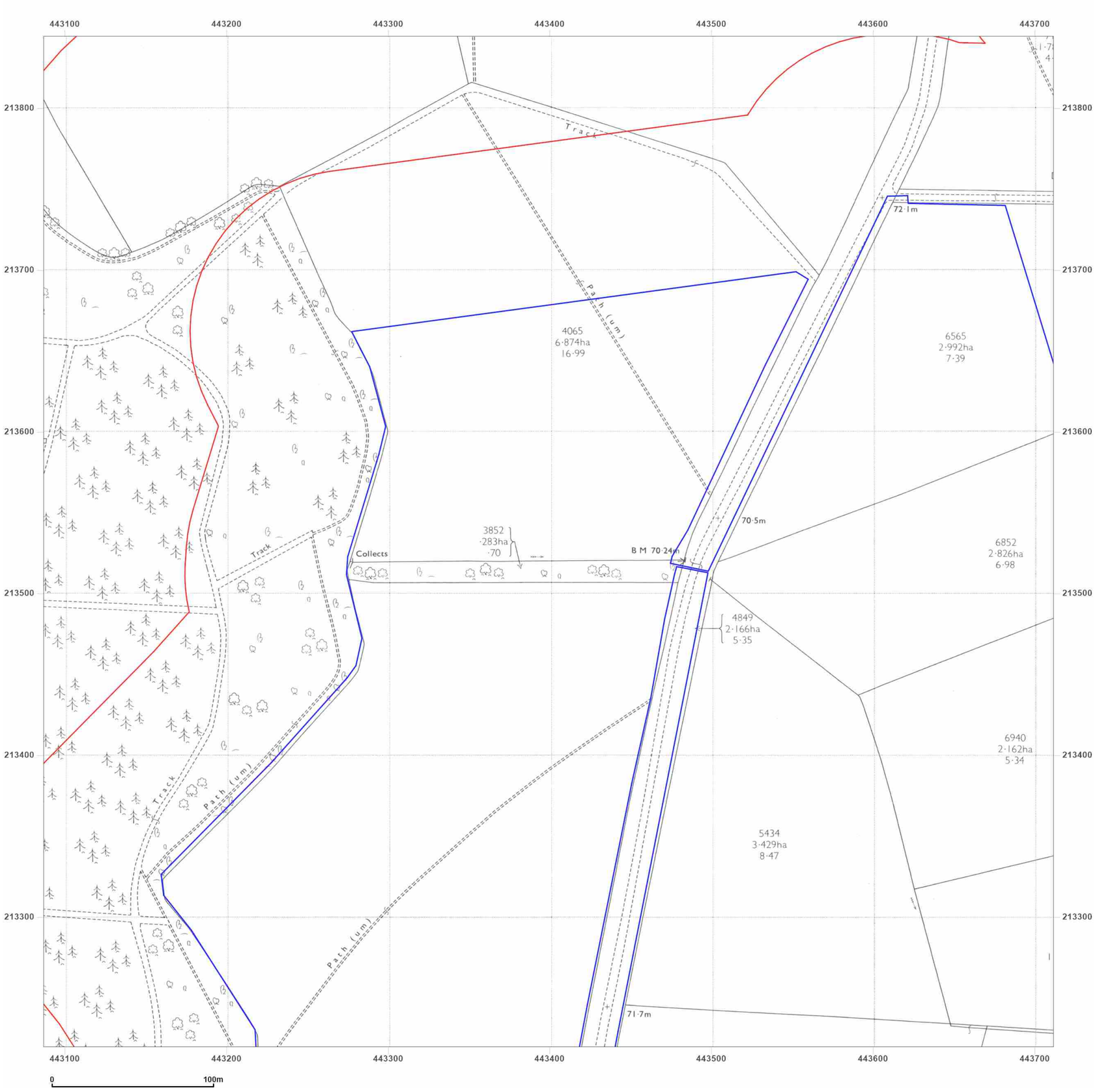
Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_6
Grid Ref: 443399, 213532

Map Name: National Grid

Map date: **1975**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1972
Revised 1972
Edition N/A
Copyright 1975
Levelled 1971

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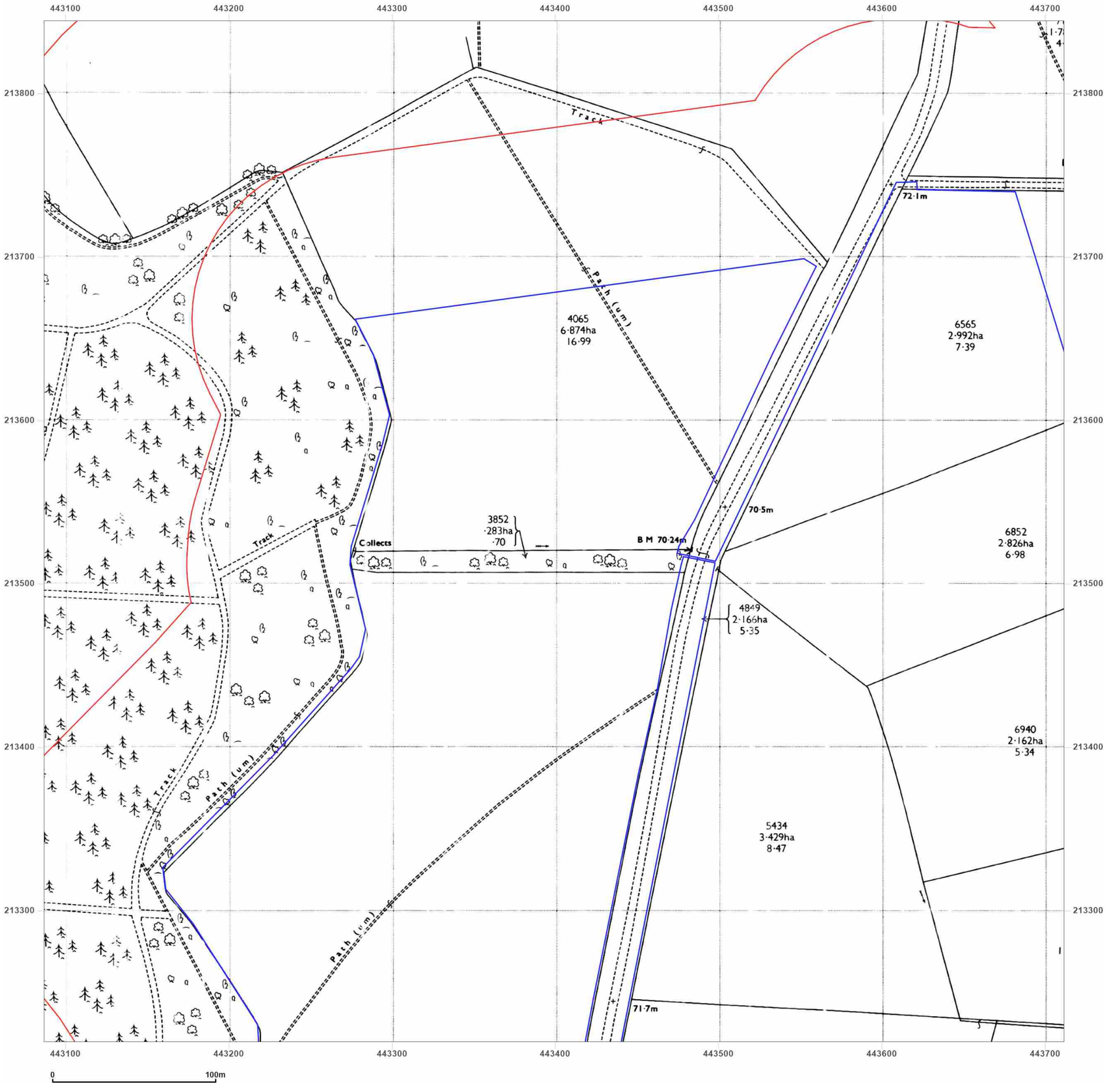
Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_6
Grid Ref: 443399, 213532

Map Name: National Grid

Map date: **1975**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

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

Powered by

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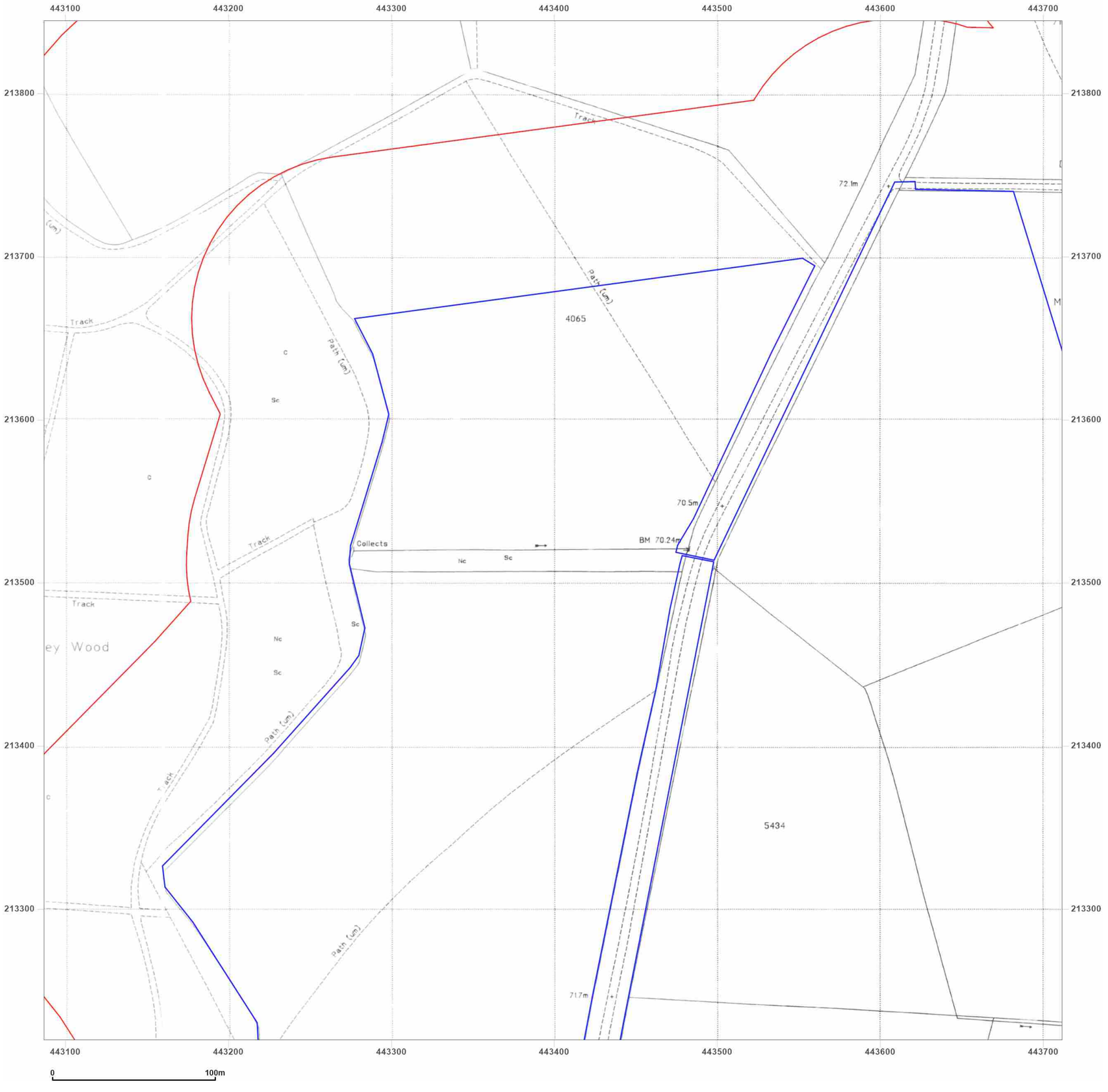
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_LS_2_6
Grid Ref: 443399, 213532

Map Name: National Grid

Map date: **1994**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
S

Surveyed 1994
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

Powered by

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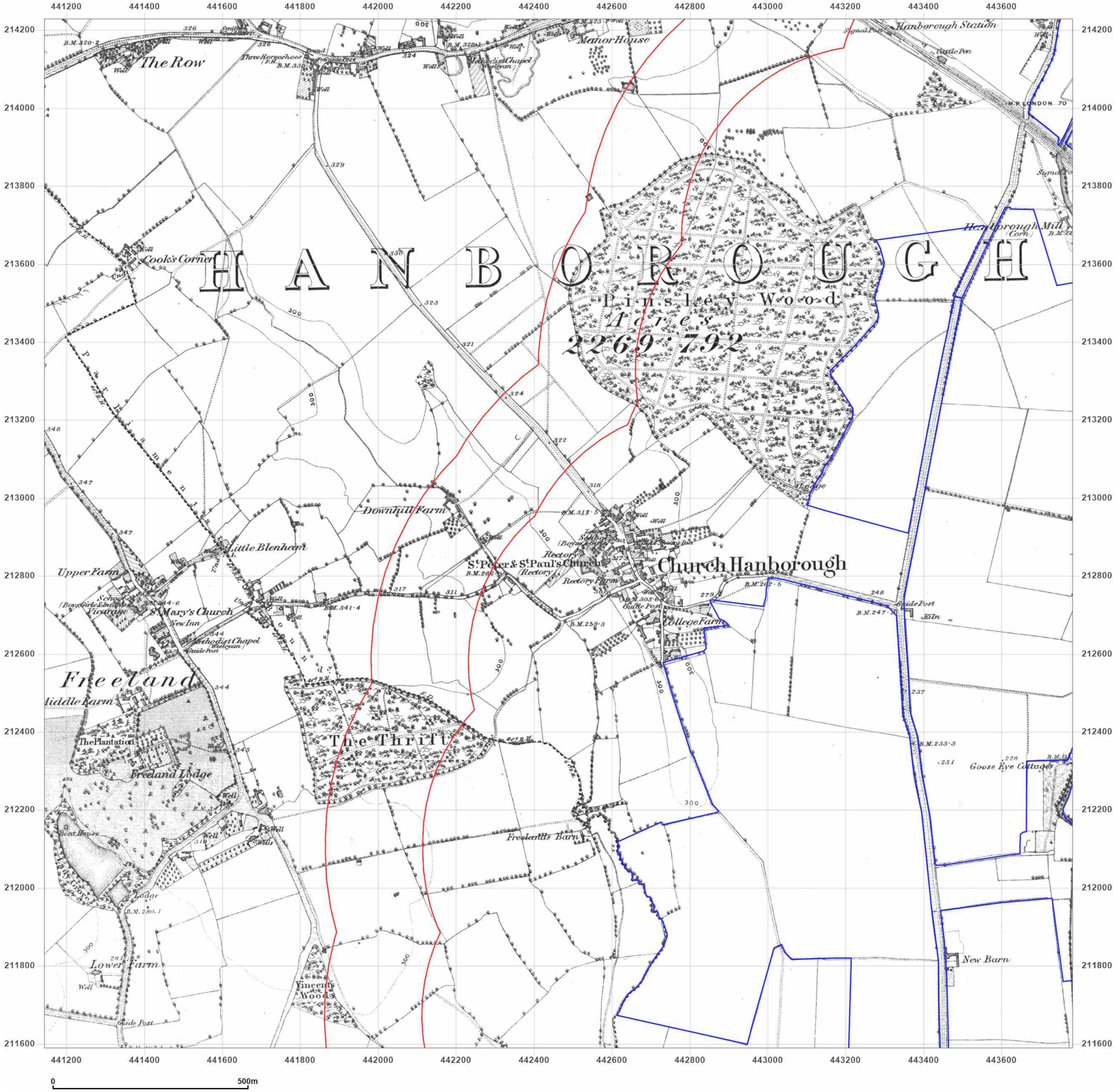
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

Map date: **1876-1880**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1880
Revised 1880
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1876
Edition N/A
Copyright N/A
Levelled N/A

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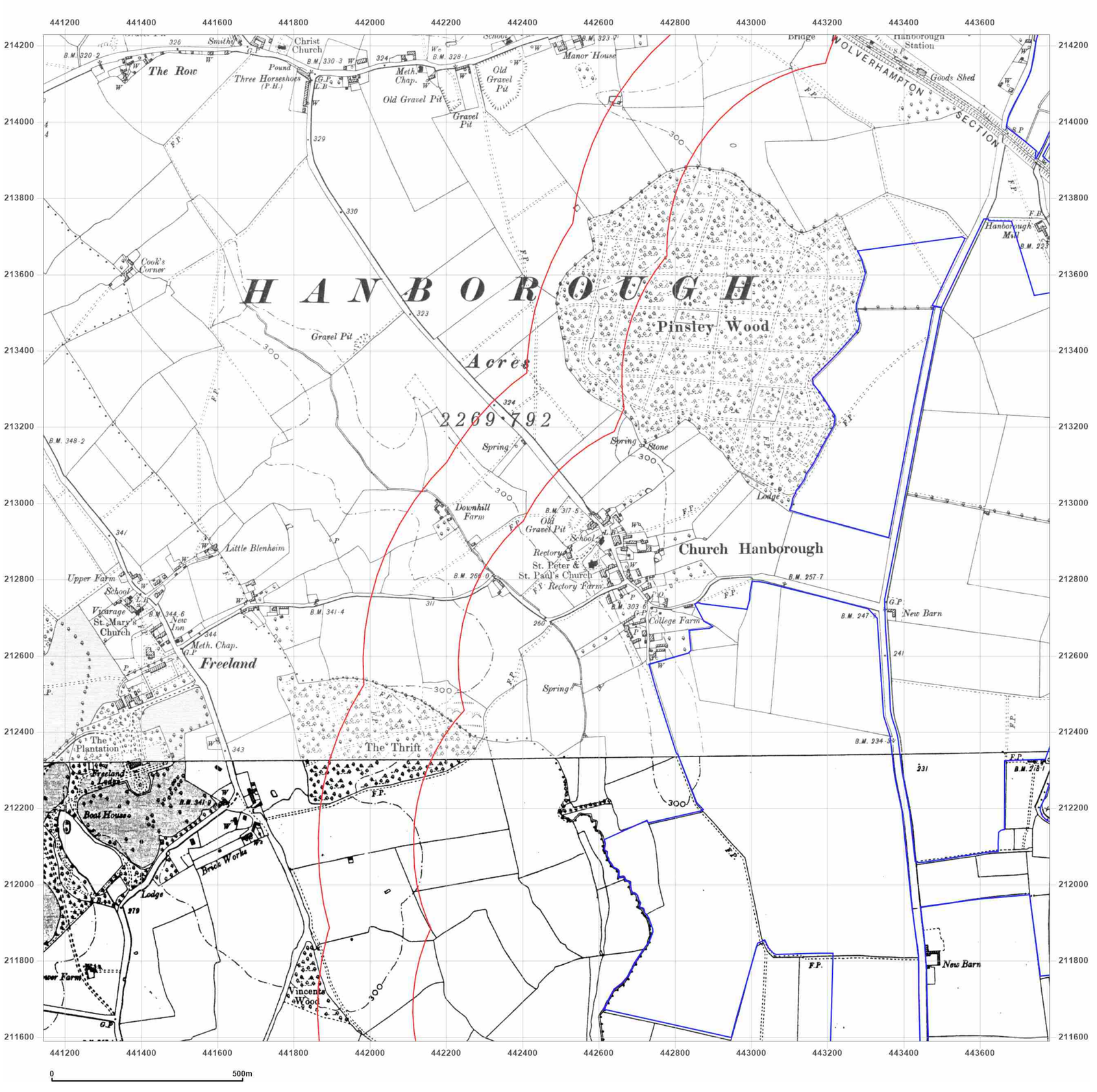
Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

Map date: **1898-1900**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1875
Revised 1898
Edition N/A
Copyright N/A
Levelled N/A

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

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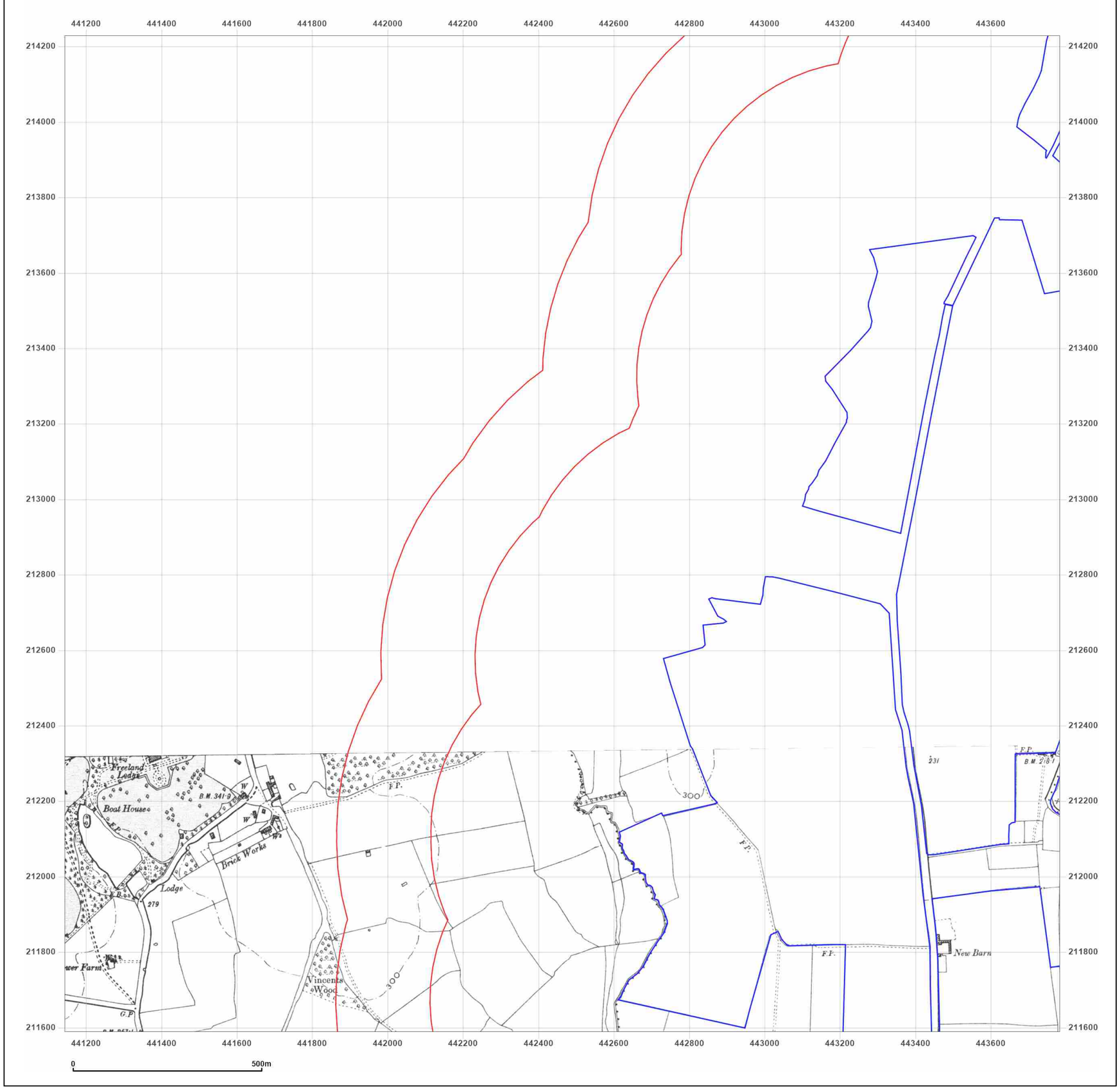
Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

Map date: **1900**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1875
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

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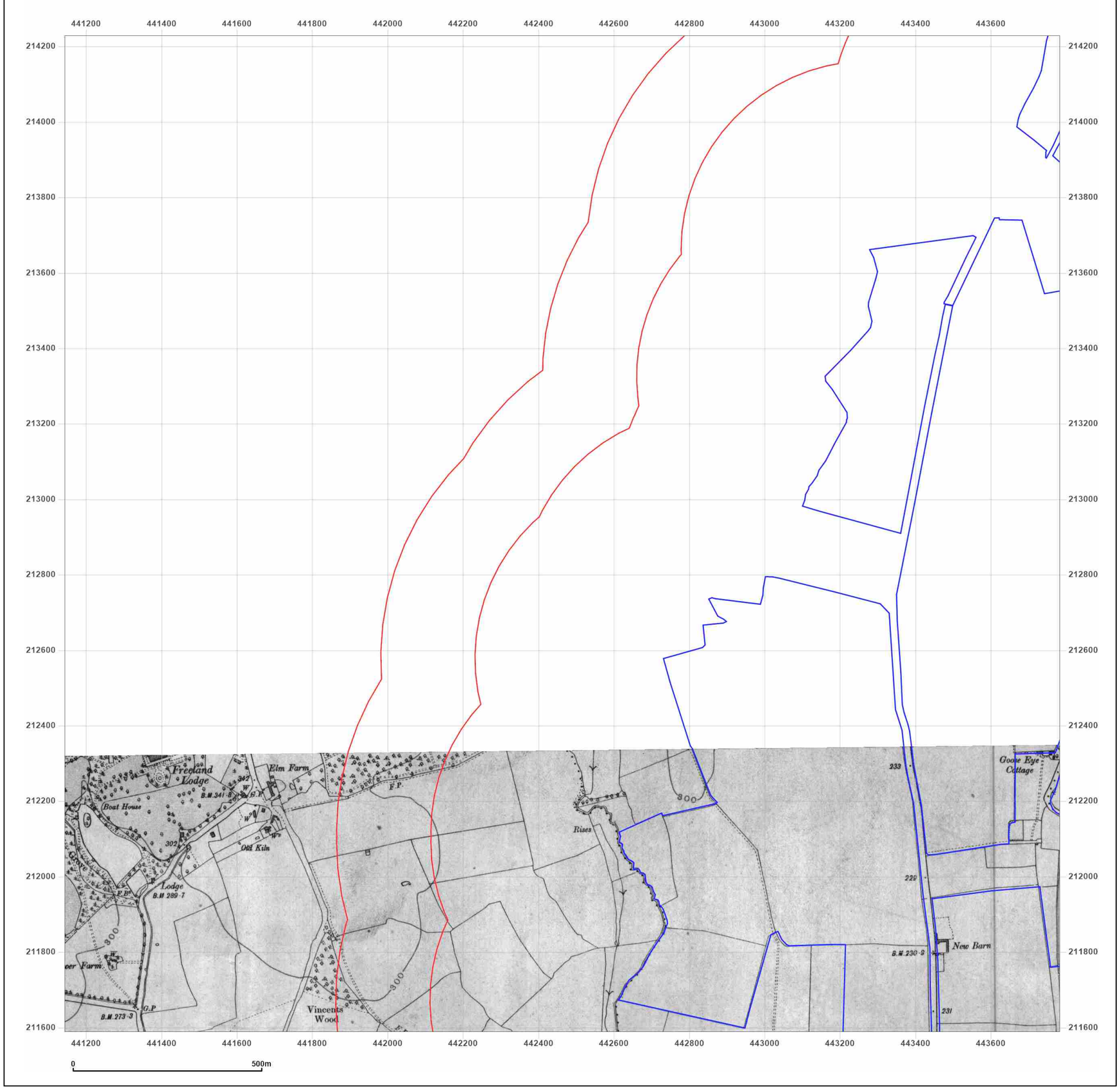
Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

Map date: **1911**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

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

Powered by

Produced by
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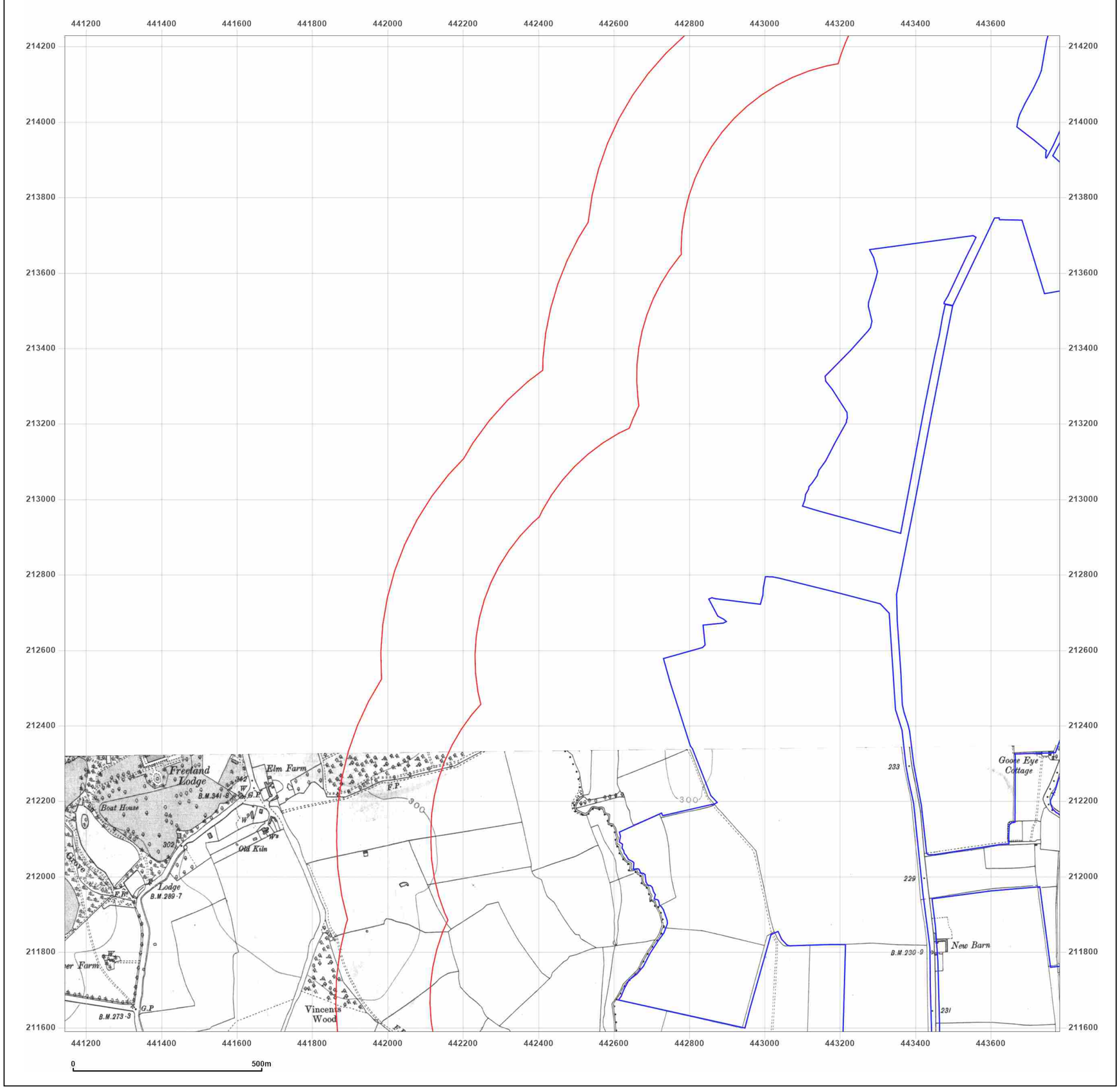
E: info@groundsure.com
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

Map date: **1914**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

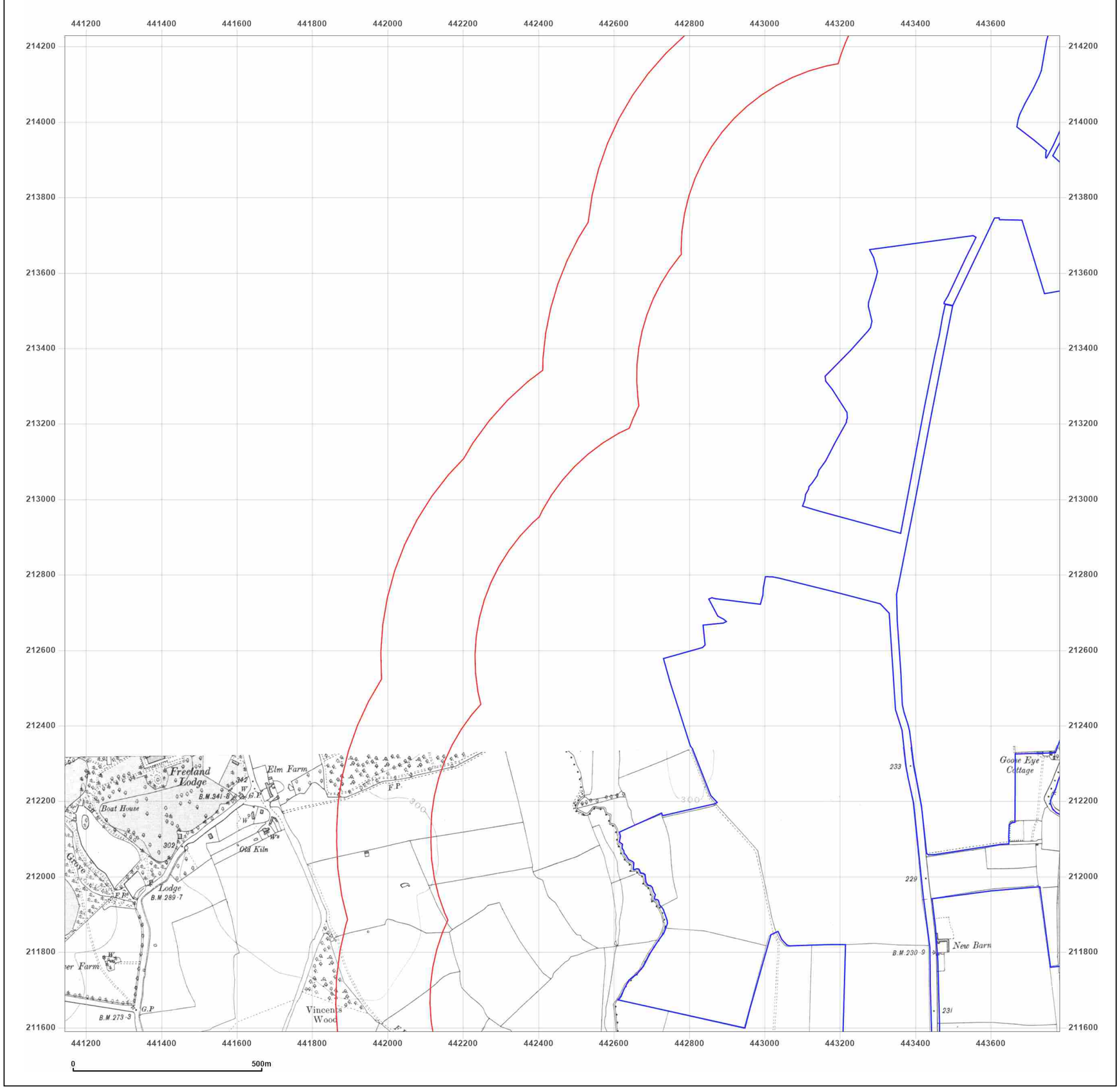
Surveyed N/A
Revised N/A
Edition 1914
Copyright N/A
Levelled N/A

Powered by

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

Map date: **1914**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

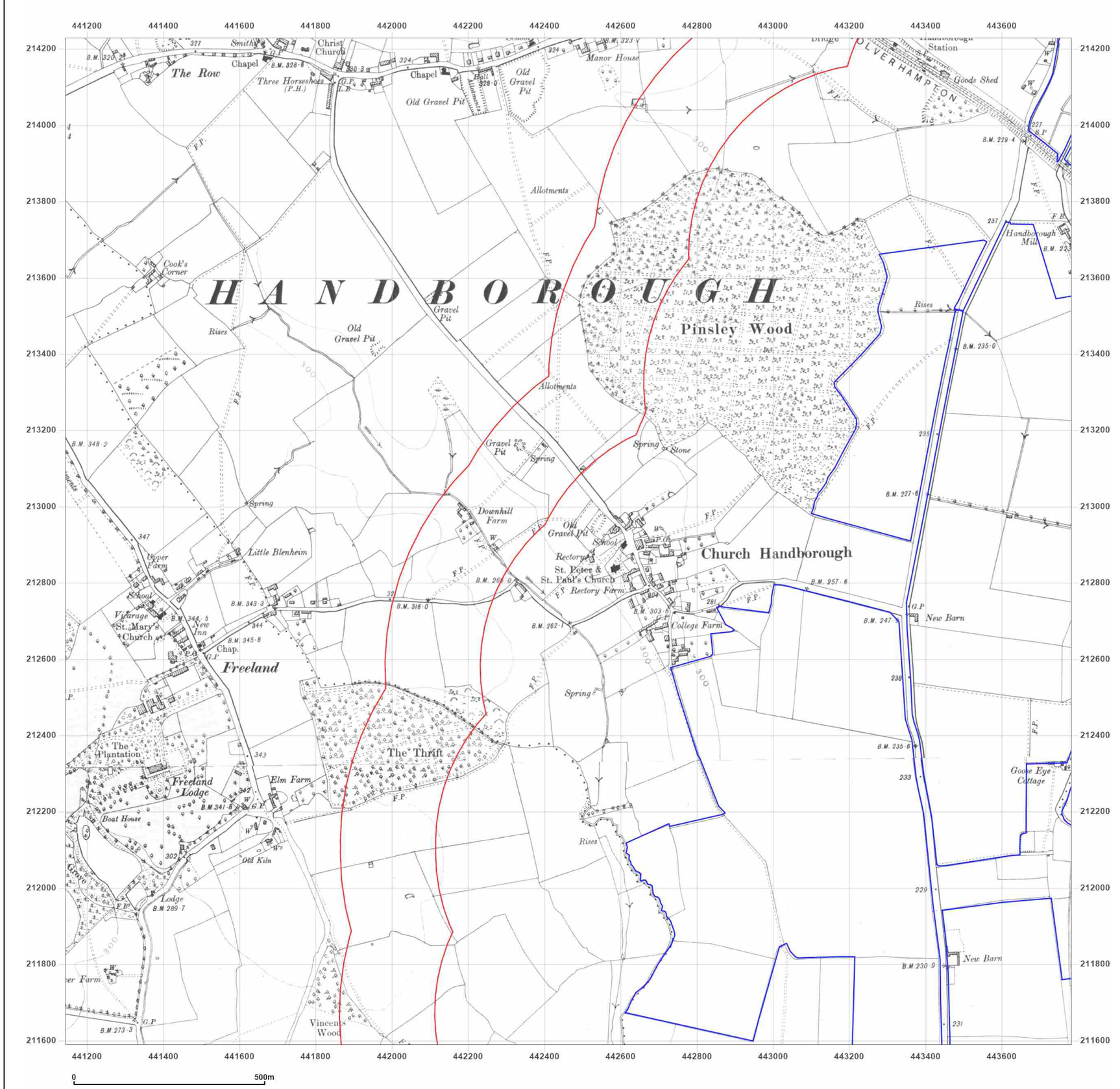
Surveyed 1872
Revised 1914
Edition 1914
Copyright N/A
Levelled N/A

Powered by OS

Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

Map date: **1922-1923**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1875
Revised 1923
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

Powered by OS

Produced by
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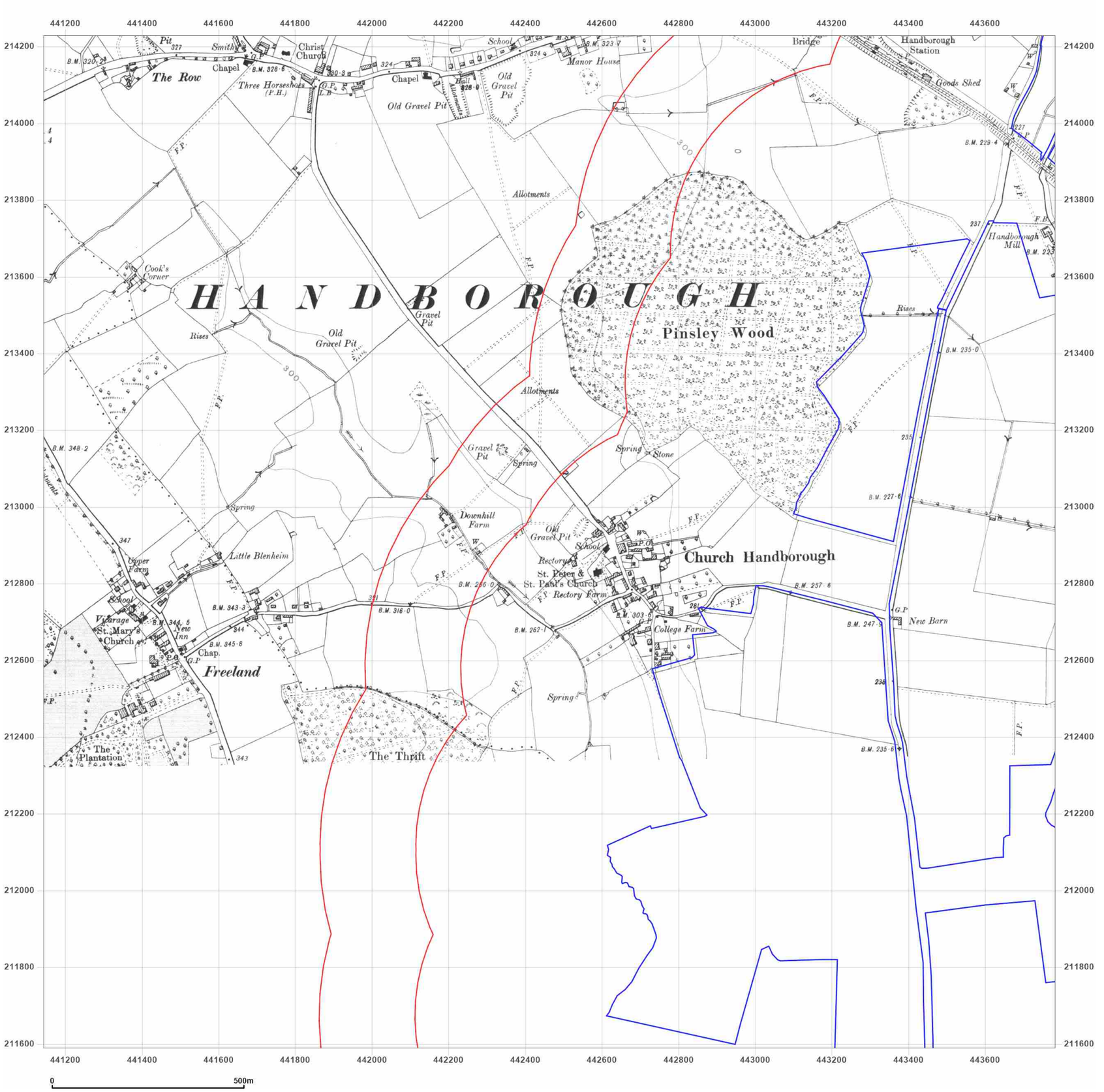
E: info@groundsure.com
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: County Series

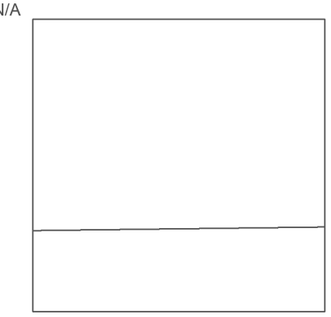
Map date: **1923**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1879
Revised 1923
Edition N/A
Copyright N/A
Levelled N/A



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Produced by
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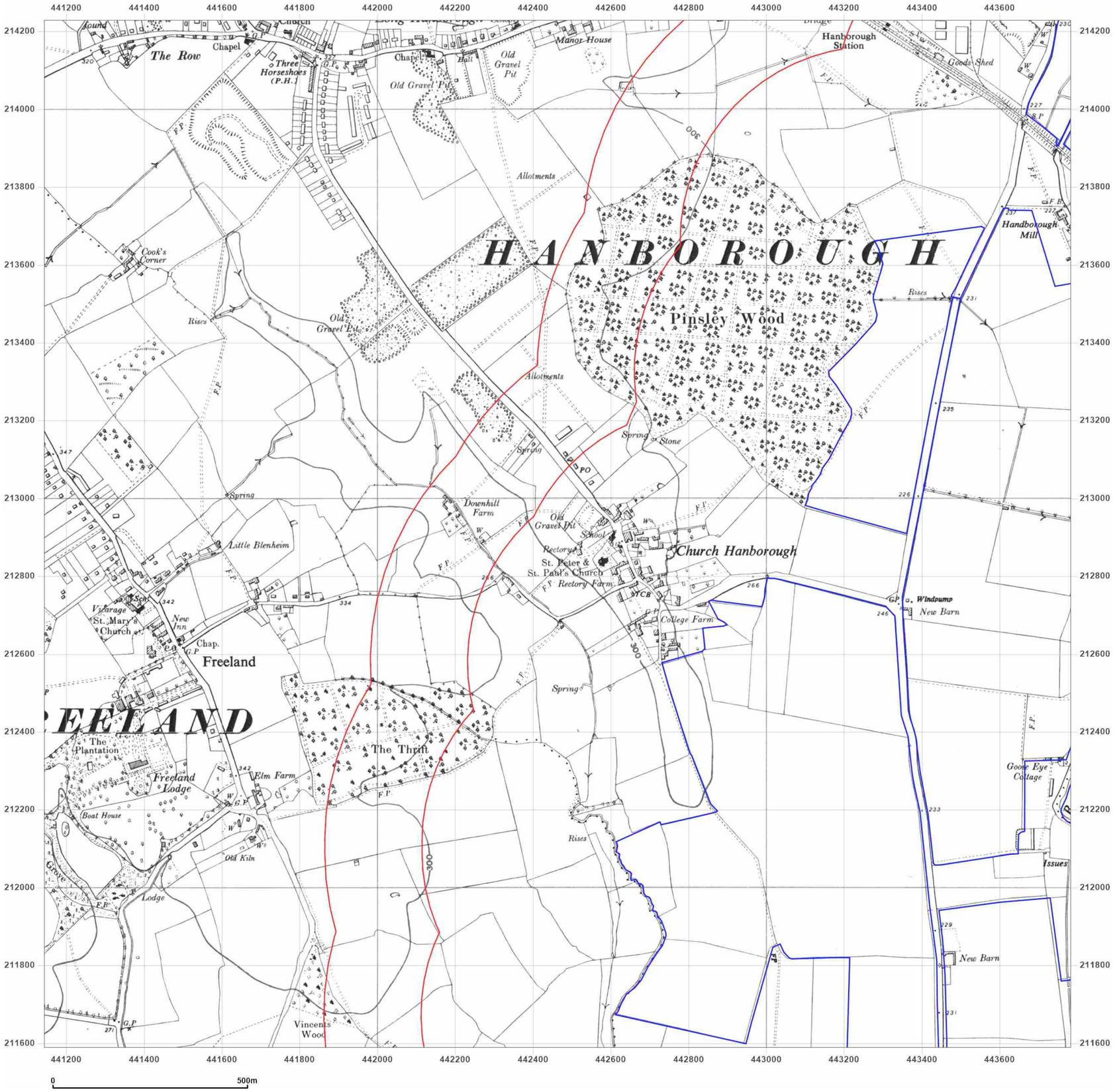
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: Provisional
Map date: **1955**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed N/A
Revised 1954
Edition 1955
Copyright N/A
Levelled N/A

Powered by OS

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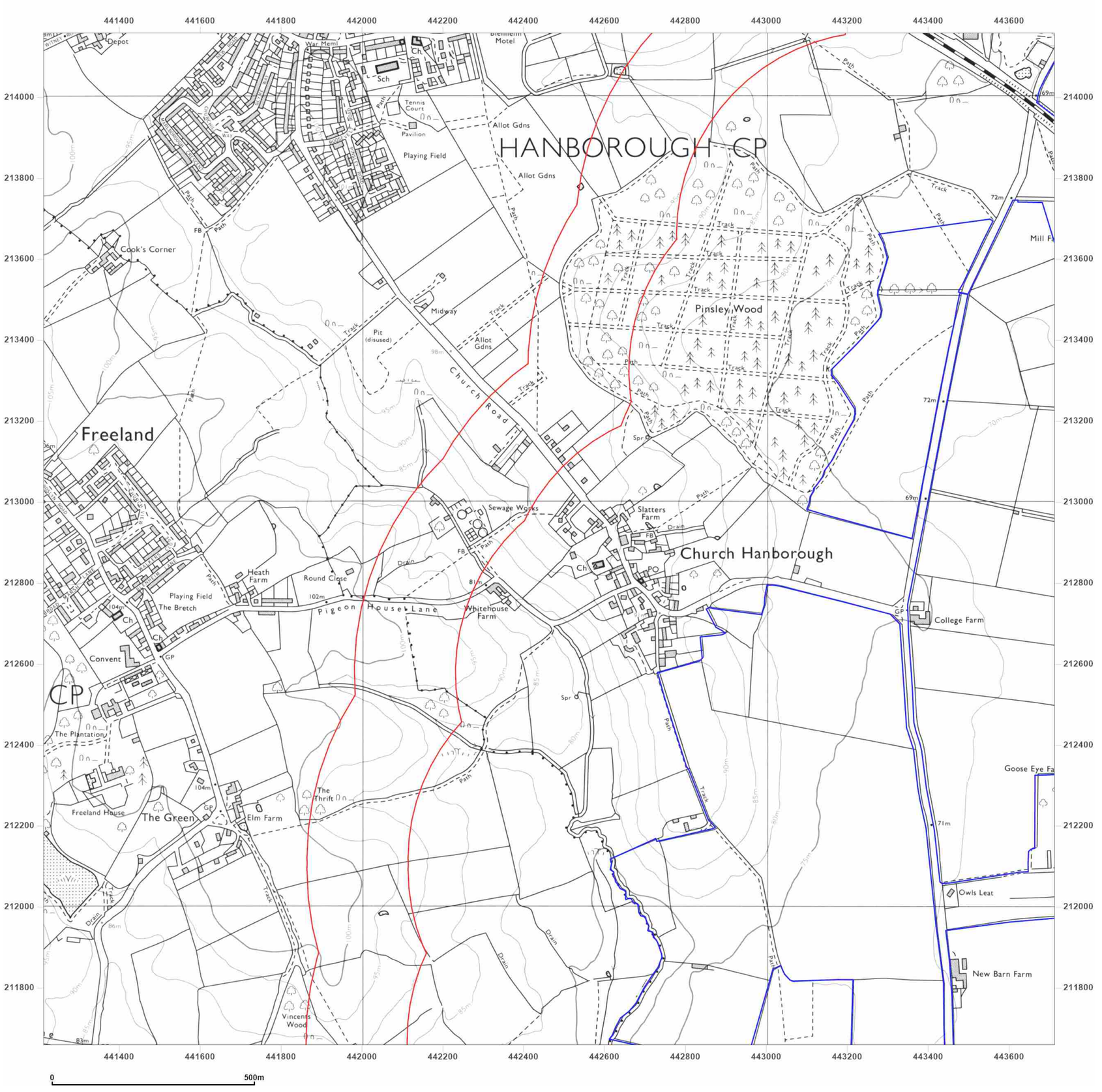
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: National Grid

Map date: **1980**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1972
Revised 1979
Edition N/A
Copyright 1980
Levelled 1974

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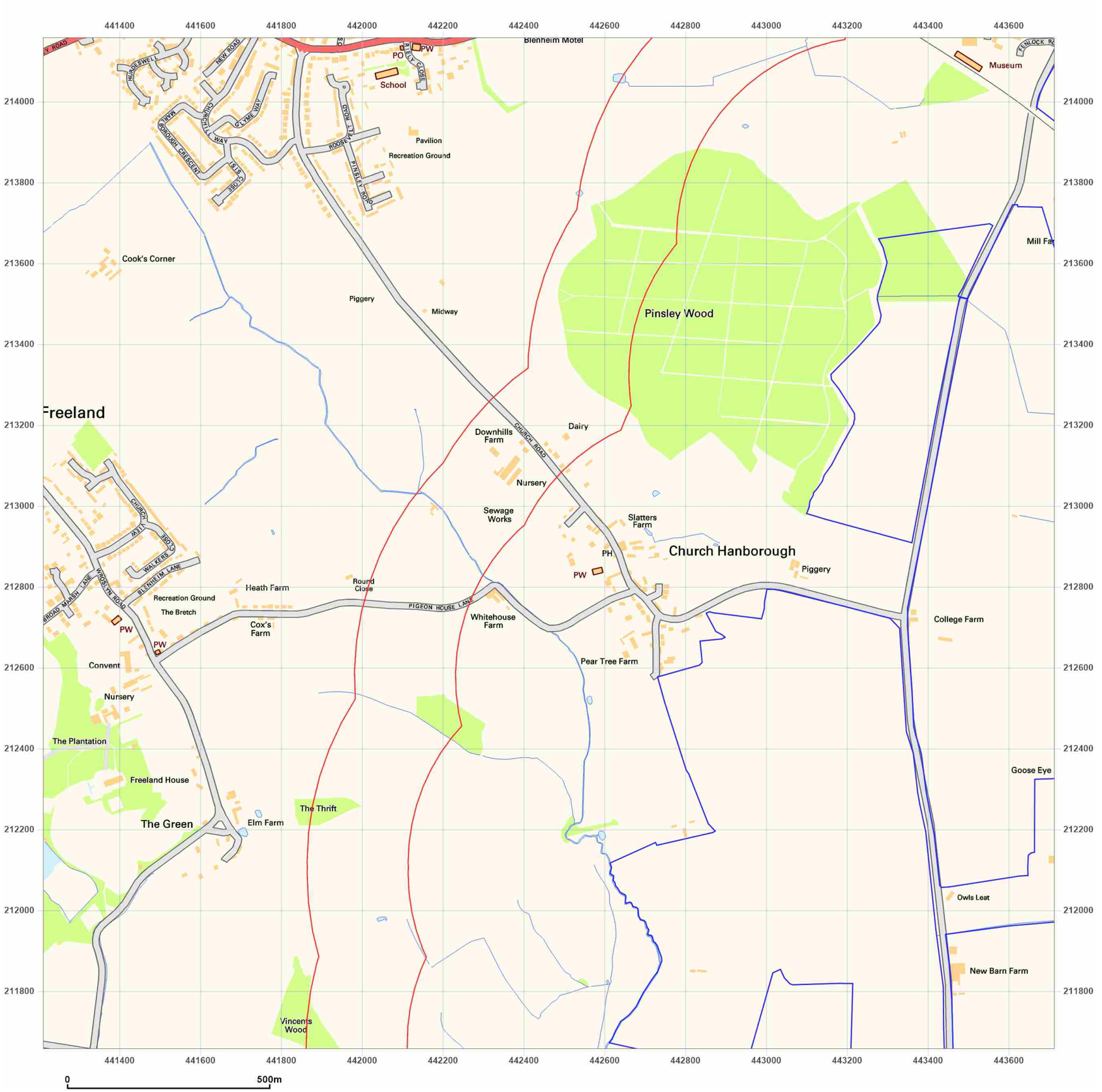
W: www.groundsure.com

Production date: 25 May 2022

Map legend available at: [redacted]



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
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2001

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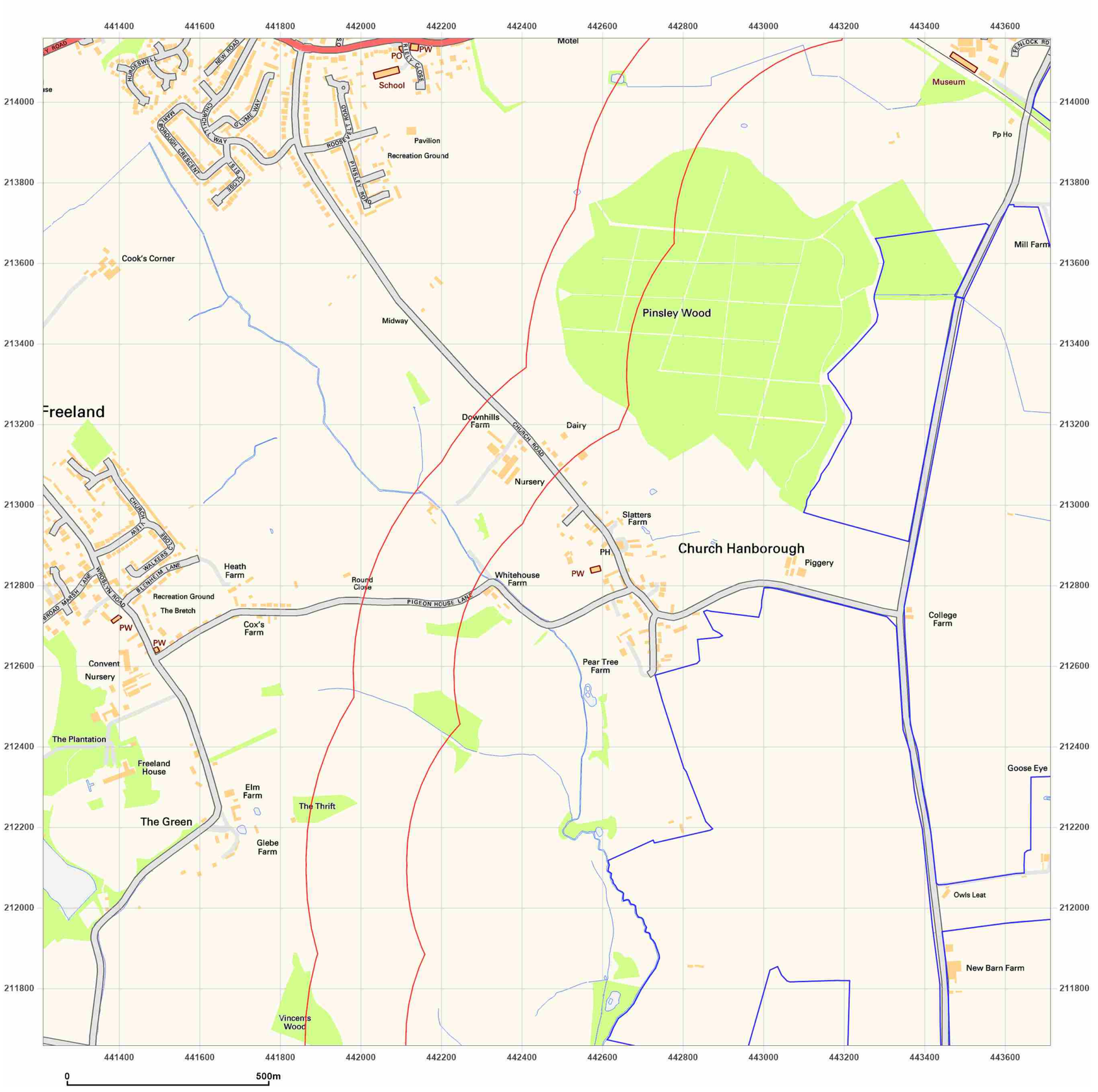
Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

2010

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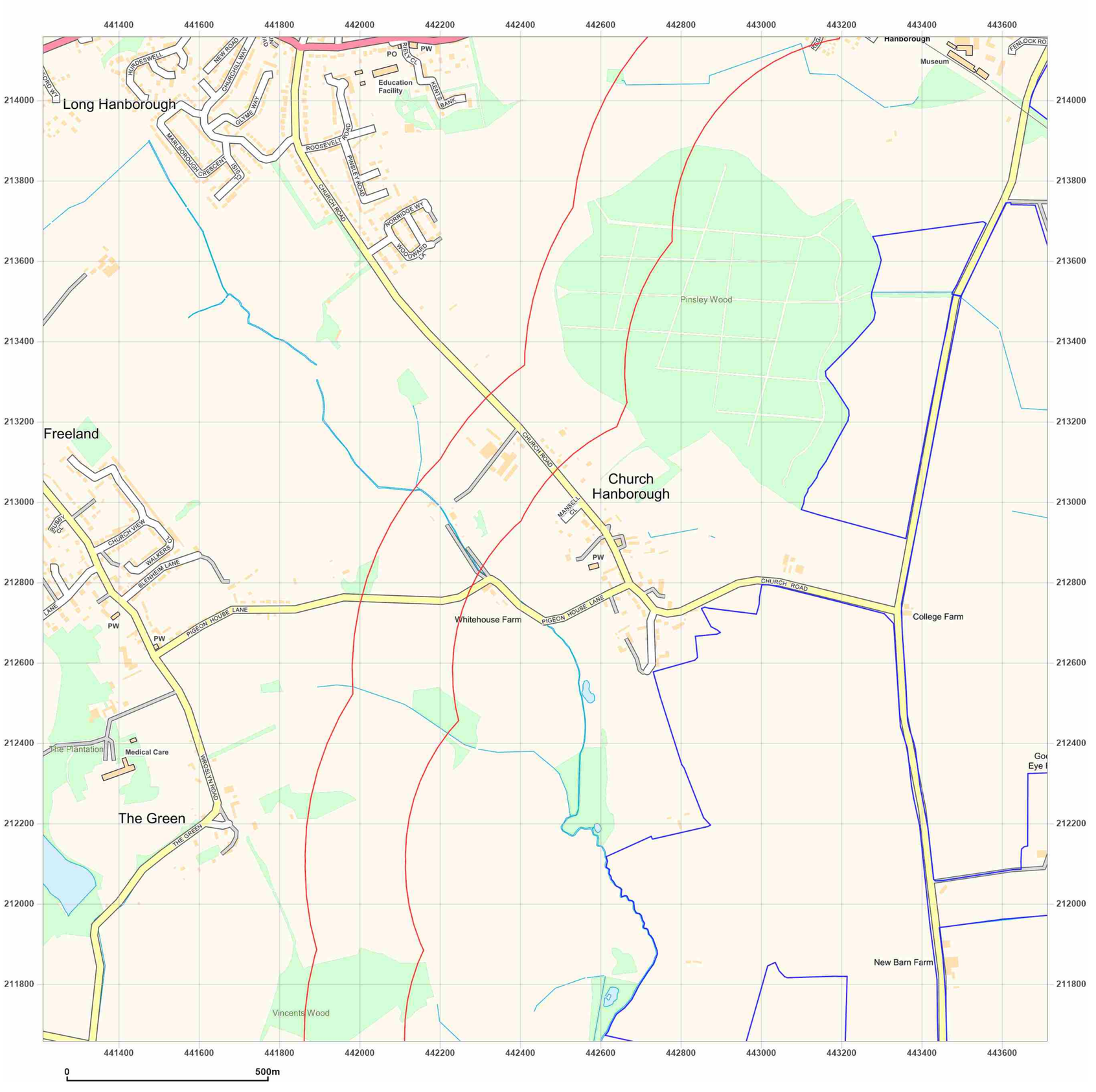
Production date: 25 May 2022

Map legend available at:



Groundsure INSIGHTS

Site Details:

Middle - BM Solar

Client Ref: Middle - BM Solar
Report Ref: GSIP-2022-12757-10509_SS_1_2
Grid Ref: 442462, 212908

Map Name: National Grid

Map date: **2022**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

2022

Powered by OS

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T: 08444 159000
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W: www.groundsure.com

Production date: 25 May 2022

Map legend available at:

Annex D
Groundsure Insights Environmental Data Reports

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

Middle - BM Solar

Order Details

Date: 25/05/2022

Your ref: Middle - BM Solar

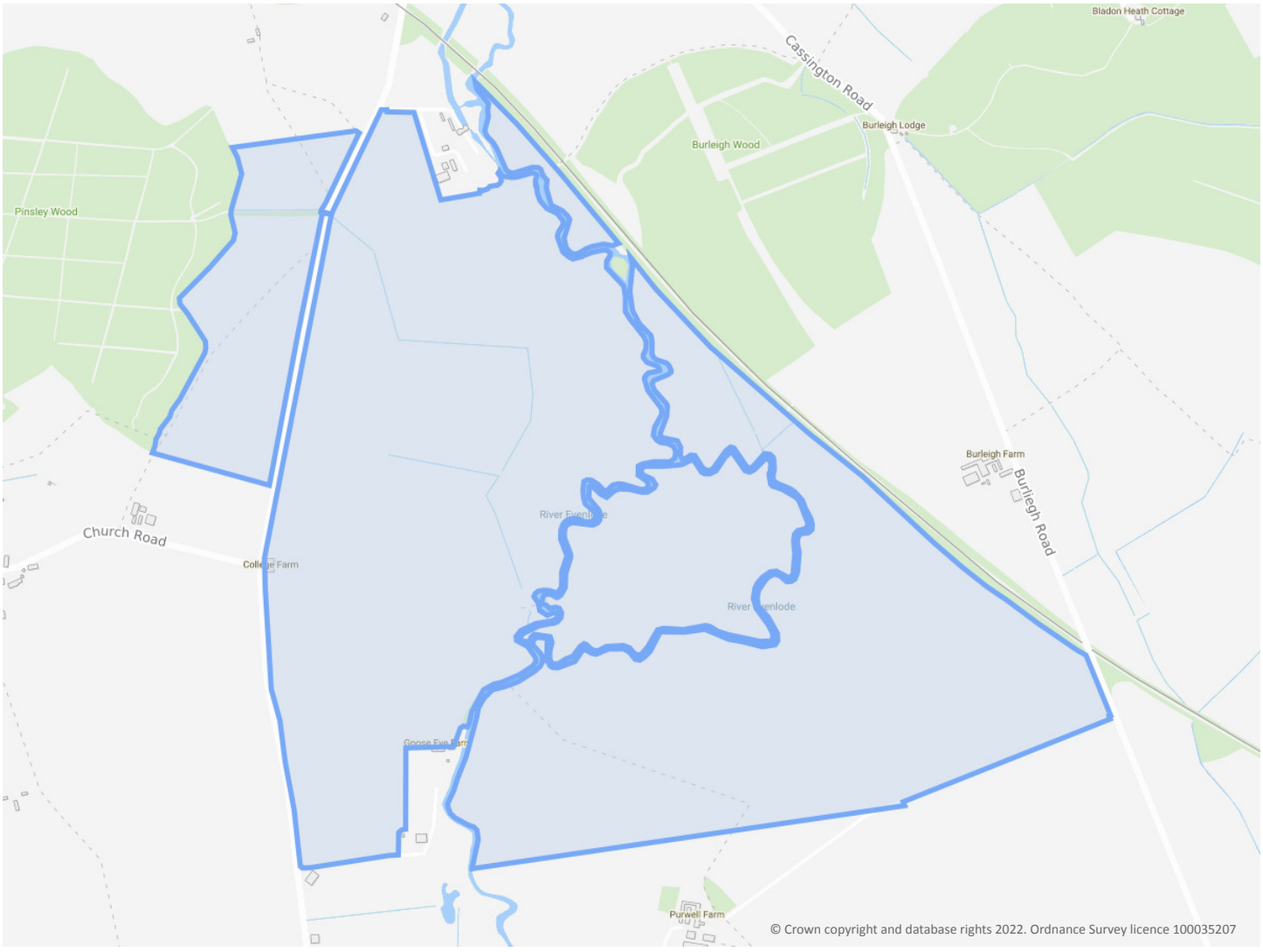
Our Ref: GSIP-2022-12757-10510_2

Site Details

Location: 444081 212914

Area: 200.25 ha

Authority: West Oxfordshire District Council



Summary of findings p. 2

OS MasterMap site plan N/A: >10ha

Aerial image p. 8

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
13	**1.1**	**Historical industrial land uses**	7	9	3	34	-
16	**1.2**	**Historical tanks**	0	1	1	1	-
16	**1.3**	**Historical energy features**	0	0	0	1	-
16	1.4	Historical petrol stations	0	0	0	0	-
17	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**	10	11	5	41	-
21	**2.2**	**Historical tanks**	0	1	1	3	-
21	**2.3**	**Historical energy features**	0	0	0	2	-
22	2.4	Historical petrol stations	0	0	0	0	-
22	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
23	3.1	Active or recent landfill	0	0	0	0	-
23	3.2	Historical landfill (BGS records)	0	0	0	0	-
24	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
24	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
24	3.5	Historical waste sites	0	0	0	0	-
24	3.6	Licensed waste sites	0	0	0	0	-
24	**3.7**	**Waste exemptions**	0	0	23	6	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
28	**4.1**	**Recent industrial land uses**	0	0	2	-	-
29	4.2	Current or recent petrol stations	0	0	0	0	-
29	4.3	Electricity cables	0	0	0	0	-
29	4.4	Gas pipelines	0	0	0	0	-
29	4.5	Sites determined as Contaminated Land	0	0	0	0	-

29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
30	4.7	Regulated explosive sites	0	0	0	0	-
30	4.8	Hazardous substance storage/usage	0	0	0	0	-
30	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
30	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
31	4.12	Radioactive Substance Authorisations	0	0	0	0	-
31	**4.13**	**Licensed Discharges to controlled waters**	0	2	0	8	-
32	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
33	4.15	Pollutant release to public sewer	0	0	0	0	-
33	4.16	List 1 Dangerous Substances	0	0	0	0	-
33	4.17	List 2 Dangerous Substances	0	0	0	0	-
33	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	1	0	-
34	4.19	Pollution inventory substances	0	0	0	0	-
34	4.20	Pollution inventory waste transfers	0	0	0	0	-
34	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
35	**5.1**	**Superficial aquifer**	Identified (within 500m)				
37	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
39	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
46	**5.4**	**Groundwater vulnerability- soluble rock risk**	Identified (within 0m)				
47	5.5	Groundwater vulnerability- local information	None (within 0m)				
48	**5.6**	**Groundwater abstractions**	0	0	0	0	5
50	**5.7**	**Surface water abstractions**	0	0	0	0	7
52	**5.8**	**Potable abstractions**	0	0	0	0	1
52	5.9	Source Protection Zones	0	0	0	0	-
52	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
53	**6.1**	**Water Network (OS MasterMap)**	18	15	23	-	-

58	6.2	Surface water features	1	1	13	-	-
58	6.3	WFD Surface water body catchments	2	-	-	-	-
59	6.4	WFD Surface water bodies	1	0	1	-	-
59	6.5	WFD Groundwater bodies	2	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
60	7.1	Risk of flooding from rivers and the sea	High (within 50m)				
61	7.2	Historical Flood Events	3	0	0	-	-
61	7.3	Flood Defences	0	0	0	-	-
62	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
62	7.5	Flood Storage Areas	0	0	0	-	-
63	7.6	Flood Zone 2	Identified (within 50m)				
64	7.7	Flood Zone 3	Identified (within 50m)				

Page	Section	Surface water flooding	
65	8.1	Surface water flooding	1 in 30 year, Greater than 1.0m (within 50m)

Page	Section	Groundwater flooding	
67	9.1	Groundwater flooding	Low (within 50m)

Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
68	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	2
69	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
69	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
69	10.4	Special Protection Areas (SPA)	0	0	0	0	0
69	10.5	National Nature Reserves (NNR)	0	0	0	0	0
70	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
70	10.7	Designated Ancient Woodland	2	1	1	0	27
71	10.8	Biosphere Reserves	0	0	0	0	0
71	10.9	Forest Parks	0	0	0	0	0
72	10.10	Marine Conservation Zones	0	0	0	0	0
72	10.11	Green Belt	1	0	0	0	1
72	10.12	Proposed Ramsar sites	0	0	0	0	0

72	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
73	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
73	10.15	Nitrate Sensitive Areas	0	0	0	0	0
73	**10.16**	**Nitrate Vulnerable Zones**	3	0	0	2	10
75	**10.17**	**SSSI Impact Risk Zones**	6	-	-	-	-
78	**10.18**	**SSSI Units**	0	0	0	0	6
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
81	11.1	World Heritage Sites	0	0	0	-	-
82	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
82	11.3	National Parks	0	0	0	-	-
82	**11.4**	**Listed Buildings**	0	1	1	-	-
83	**11.5**	**Conservation Areas**	1	0	0	-	-
83	11.6	Scheduled Ancient Monuments	0	0	0	-	-
83	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
84	**12.1**	**Agricultural Land Classification**	Grade 4 (within 250m)				
85	12.2	Open Access Land	0	0	0	-	-
85	**12.3**	**Tree Felling Licences**	0	0	2	-	-
86	**12.4**	**Environmental Stewardship Schemes**	3	2	2	-	-
86	**12.5**	**Countryside Stewardship Schemes**	4	1	3	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
88	**13.1**	**Priority Habitat Inventory**	4	6	9	-	-
89	13.2	Habitat Networks	0	0	0	-	-
89	13.3	Open Mosaic Habitat	0	0	0	-	-
90	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
91	**14.1**	**10k Availability**	Identified (within 500m)				
92	14.2	Artificial and made ground (10k)	0	0	0	0	-
93	**14.3**	**Superficial geology (10k)**	1	1	0	1	-

94	14.4	Landslip (10k)	0	0	0	0	-
95	**14.5**	**Bedrock geology (10k)**	1	0	0	0	-
96	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
97	**15.1**	**50k Availability**	Identified (within 500m)				
98	**15.2**	**Artificial and made ground (50k)**	1	1	2	1	-
99	15.3	Artificial ground permeability (50k)	0	0	-	-	-
100	**15.4**	**Superficial geology (50k)**	7	1	0	3	-
101	**15.5**	**Superficial permeability (50k)**	Identified (within 50m)				
102	15.6	Landslip (50k)	0	0	0	0	-
102	15.7	Landslip permeability (50k)	None (within 50m)				
103	**15.8**	**Bedrock geology (50k)**	8	0	3	2	-
104	**15.9**	**Bedrock permeability (50k)**	Identified (within 50m)				
105	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
106	**16.1**	**BGS Boreholes**	2	0	5	-	-
Page	Section	Natural ground subsidence					
108	**17.1**	**Shrink swell clays**	Moderate (within 50m)				
110	**17.2**	**Running sands**	Low (within 50m)				
112	**17.3**	**Compressible deposits**	Moderate (within 50m)				
114	**17.4**	**Collapsible deposits**	Very low (within 50m)				
115	**17.5**	**Landslides**	Low (within 50m)				
117	**17.6**	**Ground dissolution of soluble rocks**	Low (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
119	**18.1**	**Natural cavities**	0	0	1	0	-
120	**18.2**	**BritPits**	2	1	2	7	-
122	**18.3**	**Surface ground workings**	8	3	1	-	-
123	18.4	Underground workings	0	0	0	0	0
123	**18.5**	**Historical Mineral Planning Areas**	2	2	0	4	-

124	18.6	Non-coal mining	0	0	0	0	0
124	18.7	Mining cavities	0	0	0	0	0
124	18.8	JPB mining areas	None (within 0m)				
125	18.9	Coal mining	None (within 0m)				
125	18.10	Brine areas	None (within 0m)				
125	18.11	Gypsum areas	None (within 0m)				
125	18.12	Tin mining	None (within 0m)				
125	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
126	**19.1**	**Radon**	Between 3% and 5% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
128	**20.1**	**BGS Estimated Background Soil Chemistry**	113	7	-	-	-
135	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
135	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
136	21.1	Underground railways (London)	0	0	0	-	-
136	21.2	Underground railways (Non-London)	0	0	0	-	-
137	21.3	Railway tunnels	0	0	0	-	-
137	**21.4**	**Historical railway and tunnel features**	0	2	3	-	-
137	21.5	Royal Mail tunnels	0	0	0	-	-
138	21.6	Historical railways	0	0	0	-	-
138	**21.7**	**Railways**	0	11	5	-	-
139	21.8	Crossrail 1	0	0	0	0	-
139	21.9	Crossrail 2	0	0	0	0	-
139	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 24/08/2019

Site Area: 200.25ha

Recent site history - 2018 aerial photograph

Capture Date: 28/06/2018

Site Area: 200.25ha

Recent site history - 2009 aerial photograph

Capture Date: 19/08/2009

Site Area: 200.25ha

Recent site history - 2000 aerial photograph

Capture Date: 12/08/2000

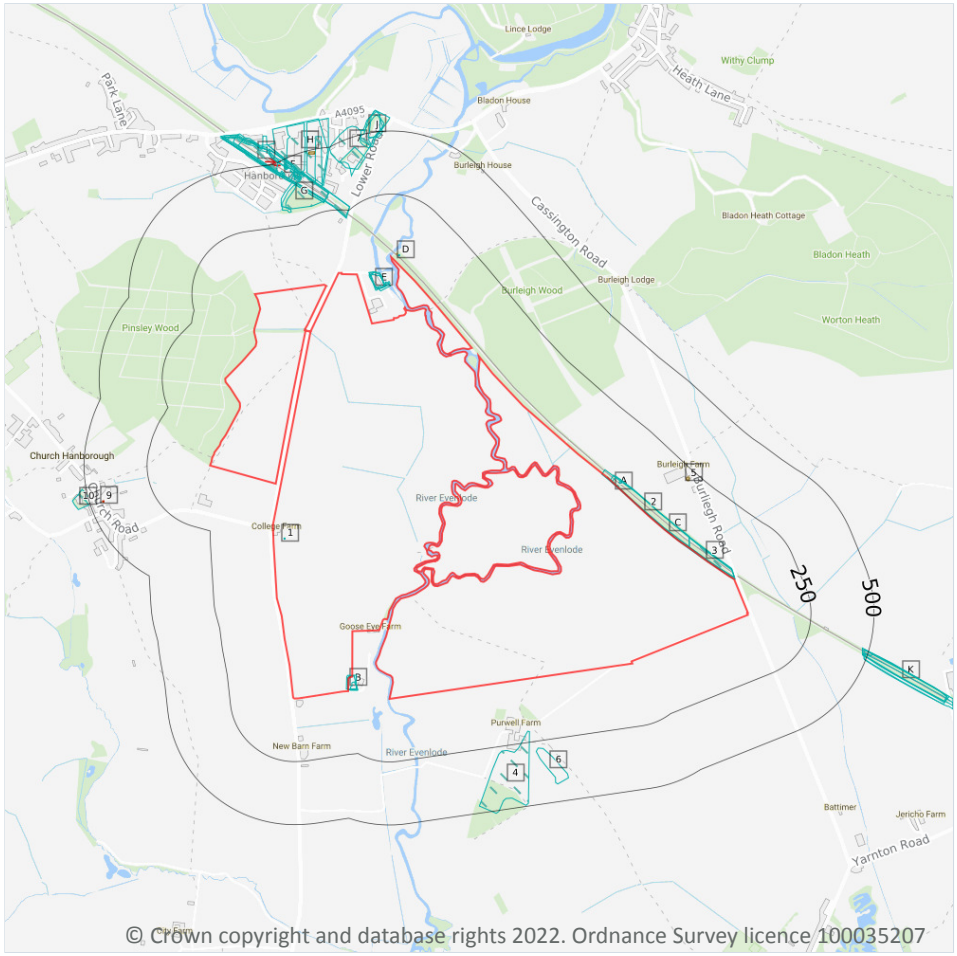
Site Area: 200.25ha

Recent site history - 1999 aerial photograph

Capture Date: 02/09/1999

Site Area: 200.25ha

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	53

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 13**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Unspecified Kiln**	**1880**	**1769408**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Railway Building**	**1880**	**1765372**
B	**On site**	**Unspecified Pit**	**1914**	**1810048**
B	**On site**	**Unspecified Pit**	**1950**	**1831051**
B	**On site**	**Unspecified Pit**	**1922**	**1834844**
C	**On site**	**Cuttings**	**1898 - 1923**	**1819234**
C	**On site**	**Cuttings**	**1880**	**1822760**
2	2m NE	Cuttings	1950	1812131
3	3m NE	Cuttings	1968	1831741
B	9m E	Unspecified Pit	1876	1793923
A	16m NE	Railway Building	1923 - 1950	1833799
E	25m W	Unspecified Mill	1923	1834518
D	25m NE	Unspecified Tank	1880	1769077
E	27m W	Unspecified Mill	1898 - 1923	1803802
E	30m W	Corn Mill	1880	1767445
E	48m E	Unspecified Mill	1950	1785530
4	206m S	Disused Sand Pit	1950	1757320
F	218m N	Railway Sidings	1898 - 1923	1785169
F	222m N	Railway Sidings	1950	1819333
6	278m S	Unspecified Pit	1950	1778296
F	285m N	Railway Sidings	1923	1786653
F	285m N	Railway Sidings	1880	1836924
G	286m N	Unspecified Pit	1923 - 1950	1802654
G	303m N	Unspecified Ground Workings	1923	1755490
H	349m N	Unspecified Commercial/Industrial	1950	1753132
H	352m N	Unspecified Warehouses	1978	1760357
7	359m NW	Unspecified Quarry	1950	1832387
8	373m N	Unspecified Depot	1978	1763693
F	392m NW	Goods Shed	1923	1797052

ID	Location	Land use	Dates present	Group ID
I	392m NW	Cuttings	1880	1792496
F	399m NW	Railway Building	1880	1765360
F	404m NW	Goods Shed	1898 - 1923	1830731
I	408m NW	Cuttings	1923	1818748
F	409m NW	Goods Shed	1950	1793954
H	420m N	Unspecified Depot	1978	1763692
I	423m NW	Cuttings	1950	1785619
F	435m NW	Railway Building	1923	1765358
F	442m NW	Railway Building	1898 - 1923	1810374
J	442m N	Unspecified Quarry	1923	1847222
J	444m N	Unspecified Quarry	1923	1841528
F	445m NW	Railway Building	1898 - 1950	1826544
F	460m NW	Railway Buildings	1880	1773248
F	460m NW	Railway Building	1923	1794392
F	463m NW	Railway Building	1898 - 1923	1834838
I	471m N	Cuttings	1898	1802668
F	473m NW	Railway Building	1950	1795658
K	473m E	Cuttings	1914	1788719
K	476m E	Cuttings	1922 - 1938	1782313
J	479m N	Unspecified Quarry	1898	1833411
K	485m E	Cuttings	1900	1802321
K	485m E	Cuttings	1876	1785630
K	491m E	Cuttings	1900 - 1968	1836004
10	499m W	Grave Yard	1880	1762903

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	3

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 13**

ID	Location	Land use	Dates present	Group ID
D	24m NE	Unspecified Tank	1881	284929
5	206m NE	Unspecified Tank	1994	284931
H	481m N	Unspecified Tank	1972 - 1994	299254

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	1

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original 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 13**

ID	Location	Land use	Dates present	Group ID
9	444m W	Electricity Substation	1972 - 1994	182437

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

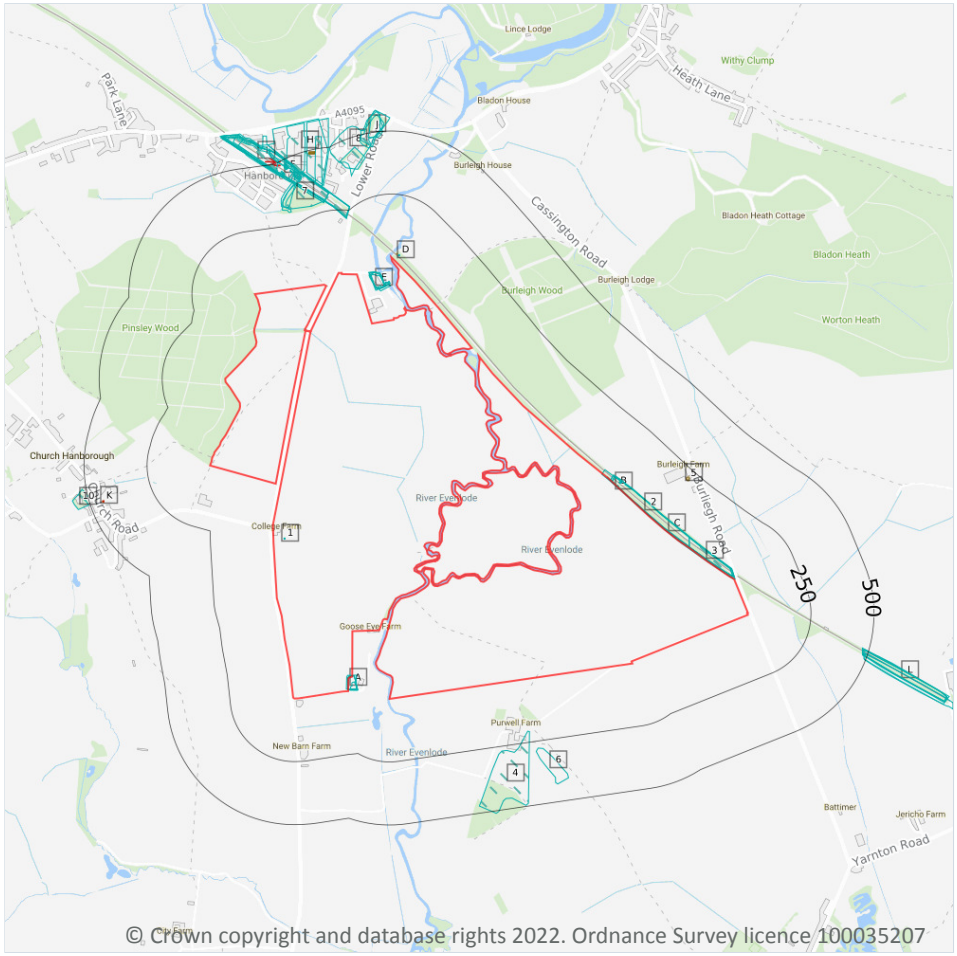
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

2.1 Historical industrial land uses

Records within 500m	67

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	**On site**	**Unspecified Kiln**	**1880**	**1769408**
A	**On site**	**Unspecified Pit**	**1922**	**1834844**
A	**On site**	**Unspecified Pit**	**1950**	**1831051**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Unspecified Pit**	**1914**	**1810048**
A	**On site**	**Unspecified Pit**	**1914**	**1810048**
B	**On site**	**Railway Building**	**1880**	**1765372**
C	**On site**	**Cuttings**	**1880**	**1822760**
C	**On site**	**Cuttings**	**1923**	**1819234**
C	**On site**	**Cuttings**	**1923**	**1819234**
C	**On site**	**Cuttings**	**1898**	**1819234**
2	2m NE	Cuttings	1950	1812131
3	3m NE	Cuttings	1968	1831741
A	9m E	Unspecified Pit	1876	1793923
B	16m NE	Railway Building	1923	1833799
B	20m NE	Railway Building	1950	1833799
E	25m W	Unspecified Mill	1923	1834518
D	25m NE	Unspecified Tank	1880	1769077
E	27m W	Unspecified Mill	1923	1803802
E	27m W	Unspecified Mill	1898	1803802
E	30m W	Corn Mill	1880	1767445
E	48m E	Unspecified Mill	1950	1785530
4	206m S	Disused Sand Pit	1950	1757320
F	218m N	Railway Sidings	1923	1785169
F	218m N	Railway Sidings	1923	1785169
F	218m N	Railway Sidings	1898	1785169
F	222m N	Railway Sidings	1950	1819333
6	278m S	Unspecified Pit	1950	1778296
F	285m N	Railway Sidings	1880	1836924
F	285m N	Railway Sidings	1923	1786653
7	286m N	Unspecified Pit	1923	1802654
G	303m N	Unspecified Ground Workings	1923	1755490

ID	Location	Land Use	Date	Group ID
G	323m N	Unspecified Pit	1950	1802654
H	349m N	Unspecified Commercial/Industrial	1950	1753132
H	352m N	Unspecified Warehouses	1978	1760357
8	359m NW	Unspecified Quarry	1950	1832387
9	373m N	Unspecified Depot	1978	1763693
F	392m NW	Goods Shed	1923	1797052
I	392m NW	Cuttings	1880	1792496
F	399m NW	Railway Building	1880	1765360
F	404m NW	Goods Shed	1923	1830731
F	404m NW	Goods Shed	1898	1830731
I	408m NW	Cuttings	1923	1818748
F	409m NW	Goods Shed	1950	1793954
H	420m N	Unspecified Depot	1978	1763692
I	423m NW	Cuttings	1950	1785619
F	435m NW	Railway Building	1923	1765358
F	442m NW	Railway Building	1923	1810374
F	442m NW	Railway Building	1898	1810374
J	442m N	Unspecified Quarry	1923	1847222
J	444m N	Unspecified Quarry	1923	1841528
F	445m NW	Railway Building	1923	1826544
F	445m NW	Railway Building	1898	1826544
F	452m NW	Railway Building	1950	1826544
F	460m NW	Railway Buildings	1880	1773248
F	460m NW	Railway Building	1923	1794392
F	463m NW	Railway Building	1923	1834838
F	463m NW	Railway Building	1898	1834838
I	471m N	Cuttings	1898	1802668
F	473m NW	Railway Building	1950	1795658

ID	Location	Land Use	Date	Group ID
L	473m E	Cuttings	1914	1788719
L	476m E	Cuttings	1938	1782313
L	476m E	Cuttings	1922	1782313
J	479m N	Unspecified Quarry	1898	1833411
L	485m E	Cuttings	1900	1802321
L	485m E	Cuttings	1876	1785630
L	491m E	Cuttings	1900	1836004
10	499m W	Grave Yard	1880	1762903

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m **5**

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

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

ID	Location	Land Use	Date	Group ID
D	24m NE	Unspecified Tank	1881	284929
5	206m NE	Unspecified Tank	1994	284931
H	481m N	Unspecified Tank	1994	299254
H	483m N	Unspecified Tank	1989	299254
H	483m N	Unspecified Tank	1972	299254

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m **2**

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

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

ID	Location	Land Use	Date	Group ID
K	444m W	Electricity Substation	1972	182437
K	445m W	Electricity Substation	1994	182437

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.

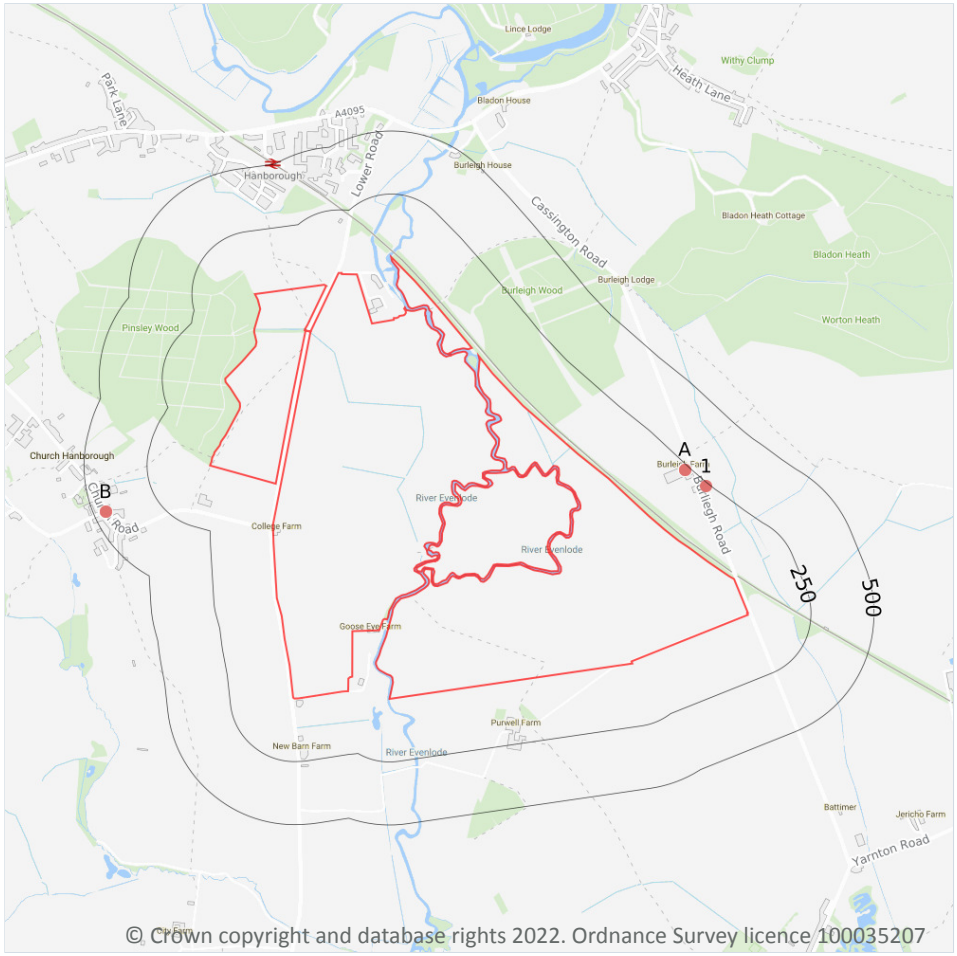
2.5 Historical garages

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	29

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

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

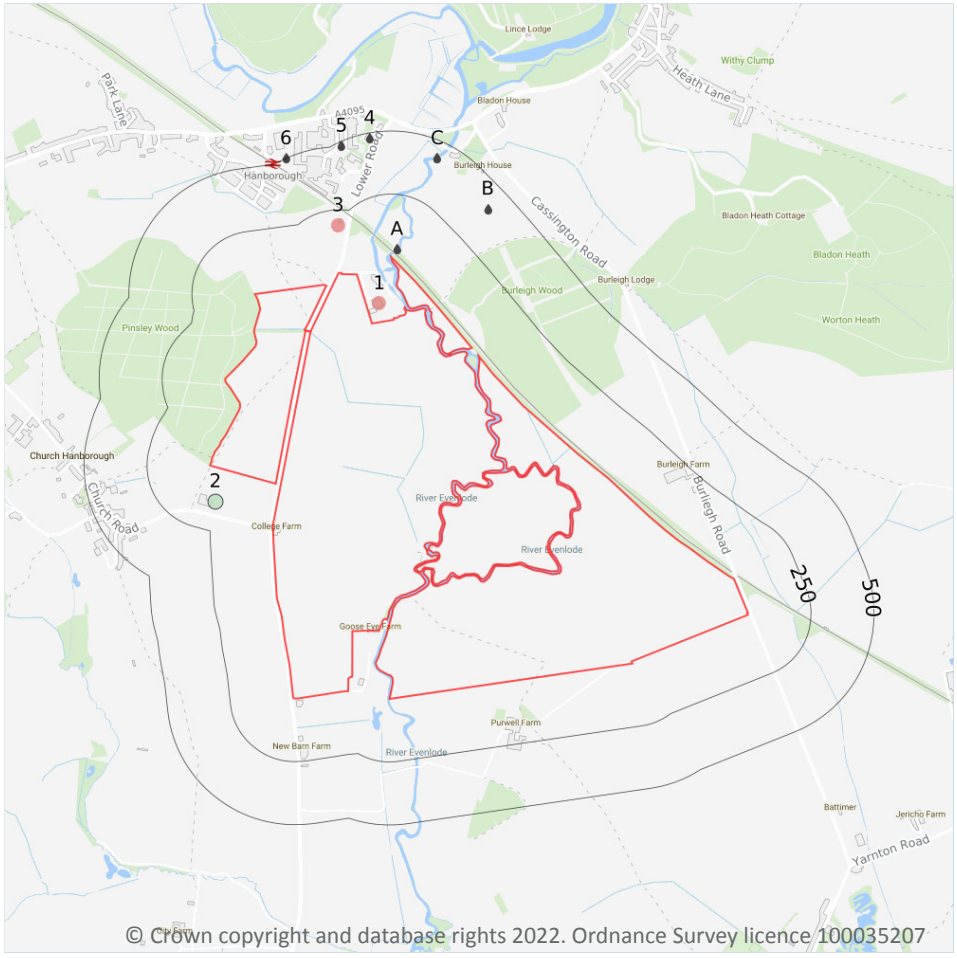
ID	Location	Site	Reference	Category	Sub-Category	Description
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX175463	Disposing of waste exemption	On a farm	Burning waste in the open
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX175463	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX175463	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Disposing of waste exemption	On a Farm	Burning waste in the open
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Disposing of waste exemption	On a Farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Disposing of waste exemption	On a Farm	Deposit of waste from dredging of inland waters
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Treating waste exemption	On a Farm	Aerobic composting and associated prior treatment
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Treating waste exemption	On a Farm	Sorting mixed waste
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Treating waste exemption	On a Farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Using waste exemption	On a Farm	Spreading of plant matter to confer benefit

ID	Location	Site	Reference	Category	Sub-Category	Description
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Using waste exemption	On a Farm	Spreading waste on agricultural land to confer benefit
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Using waste exemption	On a Farm	Use of waste for a specified purpose
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Using waste exemption	On a Farm	Burning of waste as a fuel in a small appliance
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX202616	Using waste exemption	On a Farm	Use of waste in construction
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX016319	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX016319	Disposing of waste exemption	On a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
A	230m NE	BURLEIGH FARM, BURLEIGH ROAD, CASSINGTON, WITNEY, OX29 4DZ	WEX016319	Disposing of waste exemption	On a farm	Burning waste in the open
A	230m NE	Burleigh Farm Burleigh Road WITNEY Oxfordshire OX29 4DZ	EPR/UE5359QS/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
A	230m NE	Burleigh Farm Burleigh Road WITNEY Oxfordshire OX29 4DZ	EPR/UE5359QS/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
A	230m NE	Burleigh Farm Burleigh Road WITNEY Oxfordshire OX29 4DZ	EPR/UE5359QS/A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	230m NE	Burleigh Farm Burleigh Road WITNEY Oxfordshire OX29 4DZ	EPR/UE5359QS/A001	Using waste exemption	Agricultural Waste Only	Spreading waste on agricultural land to confer benefit

ID	Location	Site	Reference	Category	Sub-Category	Description
A	230m NE	Burleigh Farm Burleigh Road WITNEY Oxfordshire OX29 4DZ	EPR/UE5359QS/A001	Using waste exemption	Agricultural Waste Only	Spreading of plant matter to confer benefit
1	235m NE	-	WEX102284	Using waste exemption	Not on a farm	Use of waste in construction
B	455m SW	NAP Field, Church Hanborough, Oxford, OX29 8AB	WEX181709	Using waste exemption	On a farm	Use of waste for a specified purpose
B	455m SW	NAP Field, Church Hanborough, Oxford, OX29 8AB	WEX181709	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
B	455m SW	NAP Field, Church Hanborough, Oxford, OX29 8AB	WEX181709	Disposing of waste exemption	On a farm	Burning waste in the open
B	455m SW	NPA Field, Church Hanborough, Oxfordshire, OX29 8AB	WEX018347	Disposing of waste exemption	On a farm	Burning waste in the open
B	455m SW	NPA Field, Church Hanborough, Oxfordshire, OX29 8AB	WEX018347	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit
B	455m SW	NPA Field, Church Hanborough, Oxfordshire, OX29 8AB	WEX018347	Using waste exemption	On a farm	Use of waste for a specified purpose

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

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	2

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 28**

ID	Location	Company	Address	Activity	Category
1	51m E	Built in Solutions	Mill Farm Barn, Lower Road, Long Hanborough, Witney, Oxfordshire, OX29 8LW	Furniture	Consumer Products
3	189m N	Pump House	Oxfordshire, OX29	Water Pumping Stations	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

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

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

Records within 500m	0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

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

4.13 Licensed Discharges to controlled waters

Records within 500m	10

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

Features are displayed on the Current industrial land use map on **page 28**

ID	Location	Address	Details	
A	38m NE	OFFICES, BLENHEIM BUSINESS PARK, LO, OFFICES BLENHEIM BUSINESS PARK, LONG HANBOROUGH OXFORDSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CNTW.0933 Permit Version: 1 Receiving Water: RIVER EVENLODE	Status: TRANSFERRED FROM WATER ACT 1989 Issue date: 18/02/1991 Effective Date: 18/02/1991 Revocation Date: -
A	38m NE	OFFICES, BLENHEIM BUSINESS PARK, LO, OFFICES BLENHEIM BUSINESS PARK, LONG HANBOROUGH OXFORDSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CNTW.0934 Permit Version: 1 Receiving Water: RIVER EVENLODE	Status: TRANSFERRED FROM WATER ACT 1989 Issue date: 18/02/1991 Effective Date: 18/02/1991 Revocation Date: -
B	406m NE	Long Hanborough - Scarsbrook P.	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1374 Permit Version: 1 Receiving Water: EVENLODE	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
B	406m NE	Long Hanborough - Scarsbrook P.	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1374 Permit Version: 2 Receiving Water: Evenlode	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 13/10/2015
C	431m NE	BANKSIDE SEWAGE TREATMENT, WORKS, L, BANKSIDE SEWAGE TREATMENT WORKS, LODGE ROAD LONG HANBOROUGH O, XFORDSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CATM.2860 Permit Version: 1 Receiving Water: RIVER EVENLODE	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 01/04/1997 Effective Date: 01/04/1997 Revocation Date: 22/12/2009

ID	Location	Address	Details	
C	431m NE	OXFORD CONTROLS BUILDING, MAIN ROAD, OXFORD CONTROLS BUILDING MAIN R, OAD LONG HANBOROUGH OXFORDSHIR, E	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.3055 Permit Version: 1 Receiving Water: RIVER EVENLODE	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 26/01/1989 Effective Date: 26/01/1989 Revocation Date: 01/10/1996
C	431m NE	UNITS 6 & 6A, LODGE ROAD, MAIN ROAD, UNITS 6 & 6A LODGE ROAD MAIN R, OAD LONG HANBOROUGH OXFORDSHIR, E	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CNTW.0663 Permit Version: 1 Receiving Water: RIVER EVENLODE	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 17/09/1990 Effective Date: 17/09/1990 Revocation Date: 01/10/1996
4	478m N	THE OLD FILM STUDIO, LOWER ROAD, LONG HANBOROUGH, OXFORDSHIRE, OX29 8LL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: EPREP3620GU Permit Version: 1 Receiving Water: GROUNDWATER VIA INFILTRATION	Status: NEW ISSUED UNDER EPR 2010 Issue date: 01/10/2010 Effective Date: 01/10/2010 Revocation Date: -
5	483m NW	MAIN ROAD, LONG HANBOROUGH, OXON, MAIN ROAD LONG HANBOROUGH OXON	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.0431 Permit Version: 1 Receiving Water: FOREST MARBLE	Status: REVOKED - UNSPECIFIED Issue date: 11/10/1985 Effective Date: 11/10/1985 Revocation Date: 07/11/1990
6	499m NW	MAIN ROAD, LONG HANBOROUGH, OXON, MAIN ROAD LONG HANBOROUGH OXON	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.1883 Permit Version: 1 Receiving Water: CORALLIAN	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 05/10/1987 Effective Date: 05/10/1987 Revocation Date: 01/10/1996

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	1

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 28**

ID	Location	Details	
2	131m S	Incident Date: 18/02/2003 Incident Identification: 137606 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) 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.

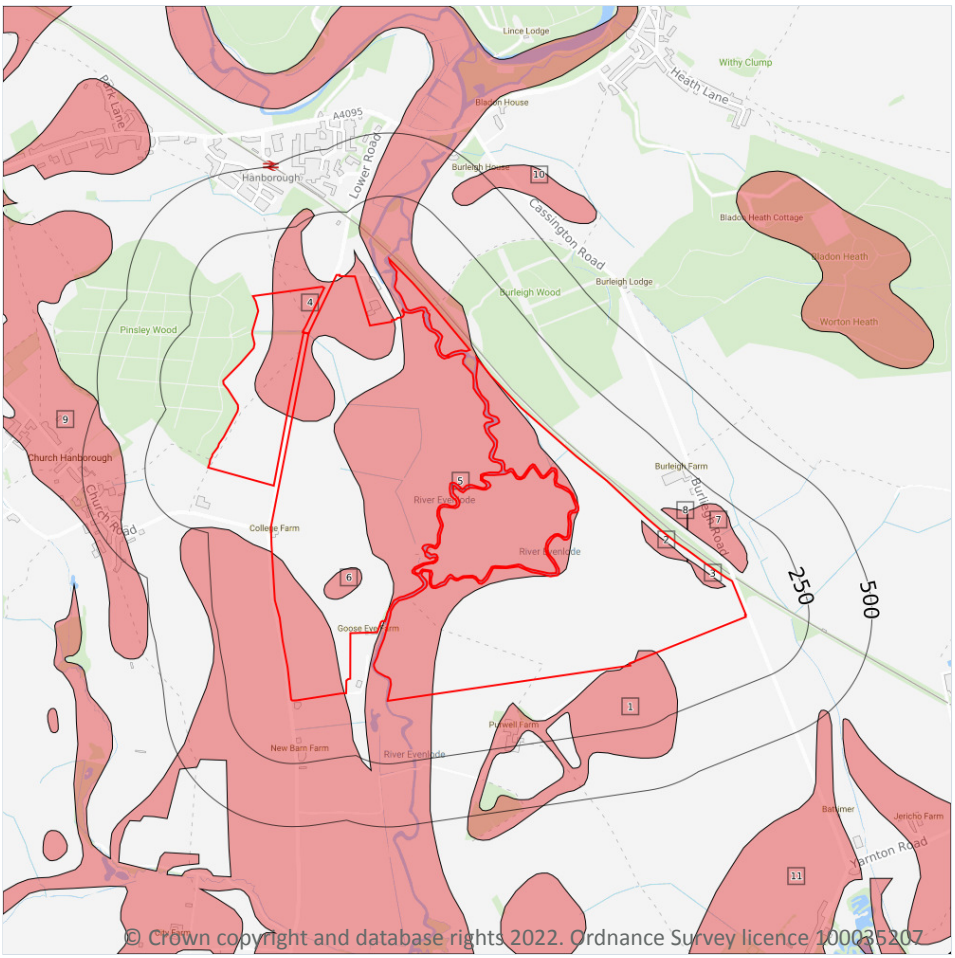
4.21 Pollution inventory radioactive waste

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	11

Aquifer status of groundwater held within superficial geology.

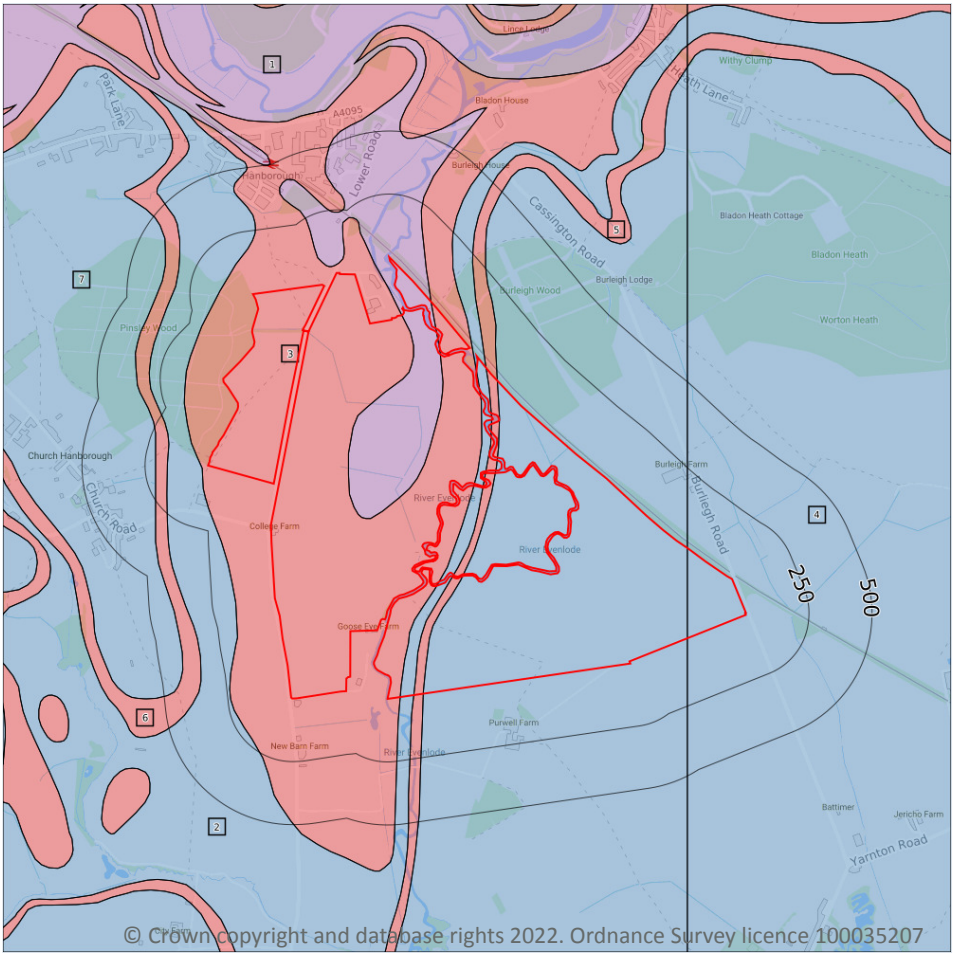
Features are displayed on the Hydrogeology map on **page 35**

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

ID	Location	Designation	Description
3	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
4	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
5	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
6	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
7	48m 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
8	62m 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
9	332m W	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
10	346m 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
11	477m SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	7

Aquifer status of groundwater held within bedrock geology.

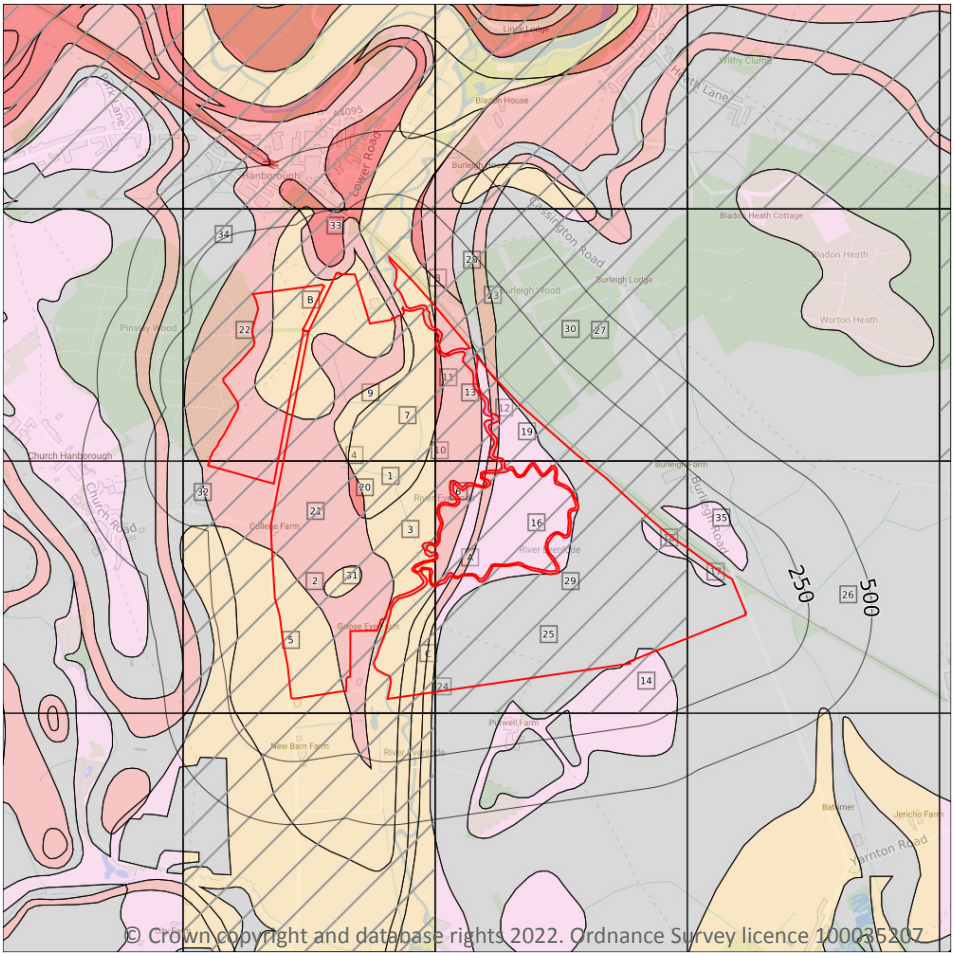
Features are displayed on the Bedrock aquifer map on **page 37**

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

ID	Location	Designation	Description
3	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
4	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
5	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
6	161m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
7	208m W	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

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

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

Other information
- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	38

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 39**

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

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
8	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/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
9	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/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
10	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/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
11	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
12	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
13	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
14	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
15	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
16	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
17	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
18	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
19	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
20	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
21	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: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
22	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: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
23	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% 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
24	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
25	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
26	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
27	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
28	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
31	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures
A	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
A	**On site**	**Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year**	**Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures**
B	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: <300mm/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**
C	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Medium**	**Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures**
C	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Medium**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures**
C	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: Medium**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures**
32	25m SW	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: Medium	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
33	30m N	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
34	40m W	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
35	48m NE	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive 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	**4**

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	**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.**	**32.0%**
29	**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%**

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
30	**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.**	**4.0%**
B	**Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.**	**0.0%**

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

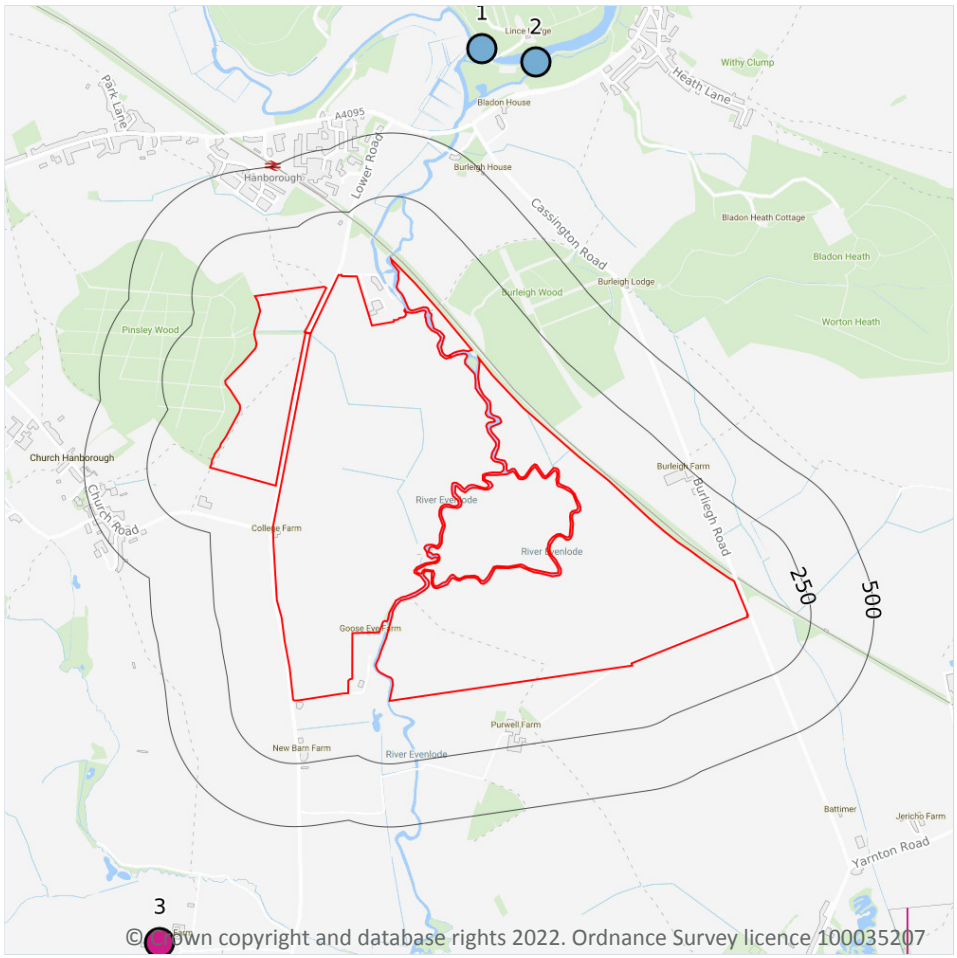
5.5 Groundwater vulnerability- local information

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	5

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 48**

ID	Location	Details	
3	1096m SW	Status: Historical Licence No: 28/39/12/0179 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: CITY FARM, EYSHAM, OXON Data Type: Point Name: WATTS Easting: 442900 Northing: 211100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 28/07/1976 Expiry Date: - Issue No: 100 Version Start Date: 28/07/1976 Version End Date: -
-	1154m S	Status: Historical Licence No: 28/39/12/0212 Details: Dust suppression Direct Source: THAMES GROUNDWATER Point: NEW WINTLES FARM, EYNSHAM Data Type: Point Name: McKENNA PLANT HIRE Easting: 443110 Northing: 210950	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 21/11/1996 Expiry Date: 31/12/2006 Issue No: 100 Version Start Date: 21/11/1996 Version End Date: -
5	1288m SE	Status: Active Licence No: TH/039/0013/011 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES GROUNDWATER Point: THAMES FIRST AND SECOND TERRACE DEPOSITS, CASSINGTON QUARRY Data Type: Poly4 Name: HANSON QUARRY PRODUCTS EUROPE LTD Easting: 445790 Northing: 211229	Annual Volume (m^3): 1,504,895 Max Daily Volume (m^3): 4,882 Original Application No: NPS/NA/001301 Original Start Date: 14/05/2021 Expiry Date: 31/03/2028 Issue No: 1 Version Start Date: 14/05/2021 Version End Date: -
-	1464m S	Status: Historical Licence No: 28/39/12/0059 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: NEW WINTLES FARM, EYNSHAM Data Type: Point Name: SOLLOWAY Easting: 443300 Northing: 210600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/01/1992 Version End Date: -
-	1805m NW	Status: Historical Licence No: 28/39/12/0191 Details: Water Bottling Direct Source: THAMES GROUNDWATER Point: THE MALT HOUSE, LONG HANBOROUGH Data Type: Point Name: NESTLE WATERS POWWOW LTD Easting: 441800 Northing: 214700	Annual Volume (m^3): 27277 Max Daily Volume (m^3): 109 Original Application No: - Original Start Date: 06/10/1981 Expiry Date: - Issue No: 104 Version Start Date: 01/05/2011 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**7**

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 48**

ID	Location	Details	
1	910m NE	Status: Active Licence No: TH/039/0012/002 Details: Hydroelectric Power Generation Direct Source: THAMES SURFACE WATER - NON TIDAL Point: BLADON DAM Data Type: Point Name: Vanbrugh Unit Trust Easting: 444177 Northing: 214645	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/009490 Original Start Date: 25/04/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/10/2014 Version End Date: -
2	968m NE	Status: Active Licence No: TH/039/0012/002 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SOUTHERN GLYME OUTFALL Data Type: Point Name: Vanbrugh Unit Trust Easting: 444391 Northing: 214589	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/009490 Original Start Date: 25/04/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/10/2014 Version End Date: -
-	1395m N	Status: Historical Licence No: 28/39/12/0035 Details: General Farming & Domestic Direct Source: THAMES SURFACE WATER - NON TIDAL Point: BLENHEIM PARK, WOODSTOCK, OXON Data Type: Point Name: TRUSTEES OF THE BLENHEIM EST Easting: 443710 Northing: 215200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 13/06/1966 Expiry Date: - Issue No: 102 Version Start Date: 12/12/2000 Version End Date: -

ID	Location	Details	
-	1395m N	Status: Historical Licence No: 28/39/12/0035 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: BLENHEIM PARK, WOODSTOCK, OXON Data Type: Point Name: TRUSTEES OF THE BLENHEIM EST Easting: 443710 Northing: 215200	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 13/06/1966 Expiry Date: - Issue No: 102 Version Start Date: 12/12/2000 Version End Date: -
-	1395m N	Status: Active Licence No: 28/39/12/0035 Details: General Farming & Domestic Direct Source: THAMES SURFACE WATER - NON TIDAL Point: BLENHEIM PARK, WOODSTOCK, OXON - BLENHEIM LAKE Data Type: Point Name: TRUSTEES OF THE BLENHEIM ESTATE Easting: 443710 Northing: 215200	Annual Volume (m^3): 57,684 Max Daily Volume (m^3): 237 Original Application No: - Original Start Date: 13/06/1966 Expiry Date: - Issue No: 102 Version Start Date: 12/12/2000 Version End Date: -
-	1395m N	Status: Active Licence No: 28/39/12/0035 Details: Spray Irrigation - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: BLENHEIM PARK, WOODSTOCK, OXON - BLENHEIM LAKE Data Type: Point Name: TRUSTEES OF THE BLENHEIM ESTATE Easting: 443710 Northing: 215200	Annual Volume (m^3): 57,684 Max Daily Volume (m^3): 237 Original Application No: - Original Start Date: 13/06/1966 Expiry Date: - Issue No: 102 Version Start Date: 12/12/2000 Version End Date: -
-	1465m N	Status: Active Licence No: TH/039/0012/013 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: SIPHONS AT POINT C Data Type: Point Name: Blenheim Palace Heritage Foundation Easting: 443707 Northing: 215270	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/032949 Original Start Date: 30/04/2020 Expiry Date: 31/03/2023 Issue No: 1 Version Start Date: 30/04/2020 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	1

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 48**

ID	Location	Details	
-	1805m NW	Status: Historical Licence No: 28/39/12/0191 Details: Water Bottling Direct Source: THAMES GROUNDWATER Point: THE MALT HOUSE, LONG HANBOROUGH Data Type: Point Name: NESTLE WATERS POWWOW LTD Easting: 441800 Northing: 214700	Annual Volume (m^3): 27277 Max Daily Volume (m^3): 109 Original Application No: - Original Start Date: 06/10/1981 Expiry Date: - Issue No: 104 Version Start Date: 01/05/2011 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	0

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

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

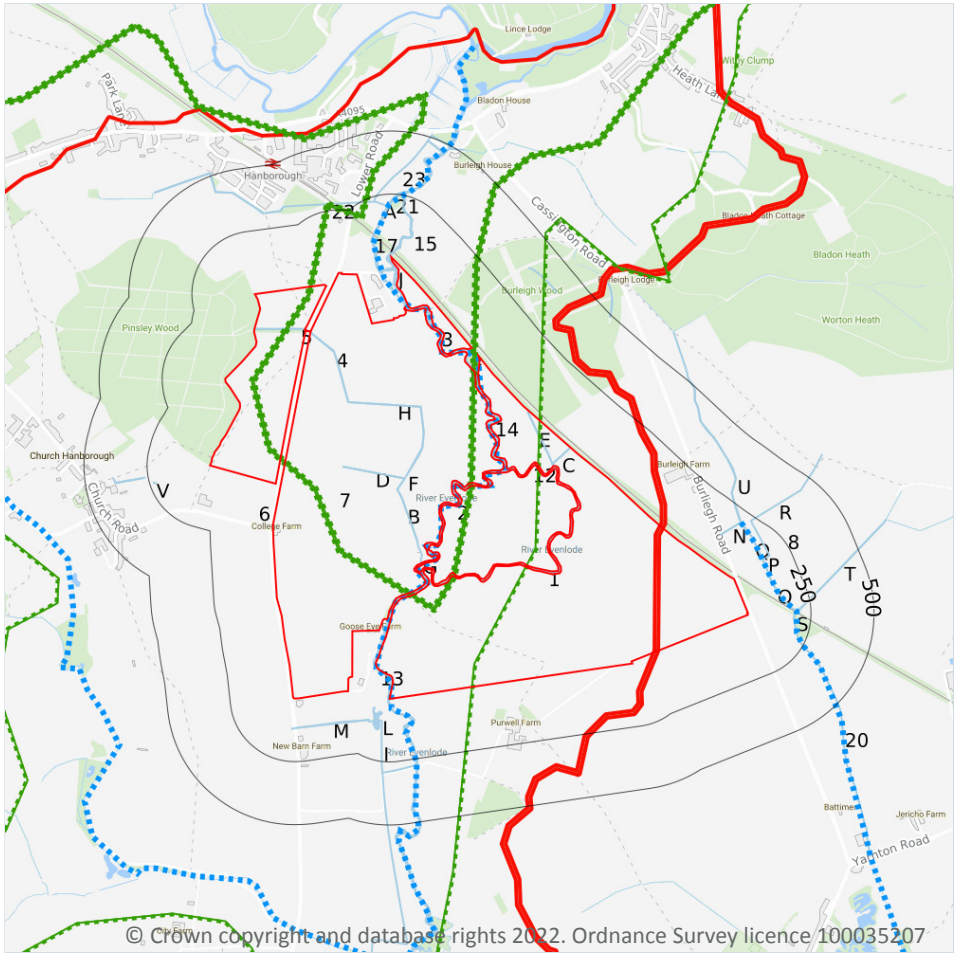
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m	56

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 53**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**River Evenlode**

ID	Location	Type of water feature	Ground level	Permanence	Name
2	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
3	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
4	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
5	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	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
G	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
G	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
G	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**Watercourse contains water year round (in normal circumstances)**	**-**
H	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**-**
G	2m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
12	2m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
J	3m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
J	3m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
K	3m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
13	3m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
14	4m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
15	4m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
J	4m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode

ID	Location	Type of water feature	Ground level	Permanence	Name
K	5m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
J	6m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
J	8m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
J	21m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
J	32m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	River Evenlode
J	39m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
17	59m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
I	90m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	90m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	94m SW	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	113m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
L	115m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
M	115m S	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
N	115m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
O	133m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
P	137m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
Q	137m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
R	168m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
20	182m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
S	185m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
S	186m E	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
S	193m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
T	194m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
21	202m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Evenlode
A	202m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
U	203m NE	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
V	225m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
22	229m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
23	229m N	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	**15**

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 53**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	**2**

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 53**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
7	**On site**	**River**	**Evenlode (Glyme to Thames)**	**GB106039029880**	**Evenlode**	**Cotswolds**
8	**On site**	**River**	**Thames (Evenlode to Thame)**	**GB106039030334**	**Ock**	**Gloucestershire and the Vale**

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

6.4 WFD Surface water bodies

Records identified	2

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 53**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
I	**On site**	**River**	**Evenlode (Glyme to Thames)**	**GB106039029880**	**Poor**	**Fail**	**Poor**	**2019**
18	135m NE	River	Thames (Evenlode to Thame)	GB106039030334	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	2

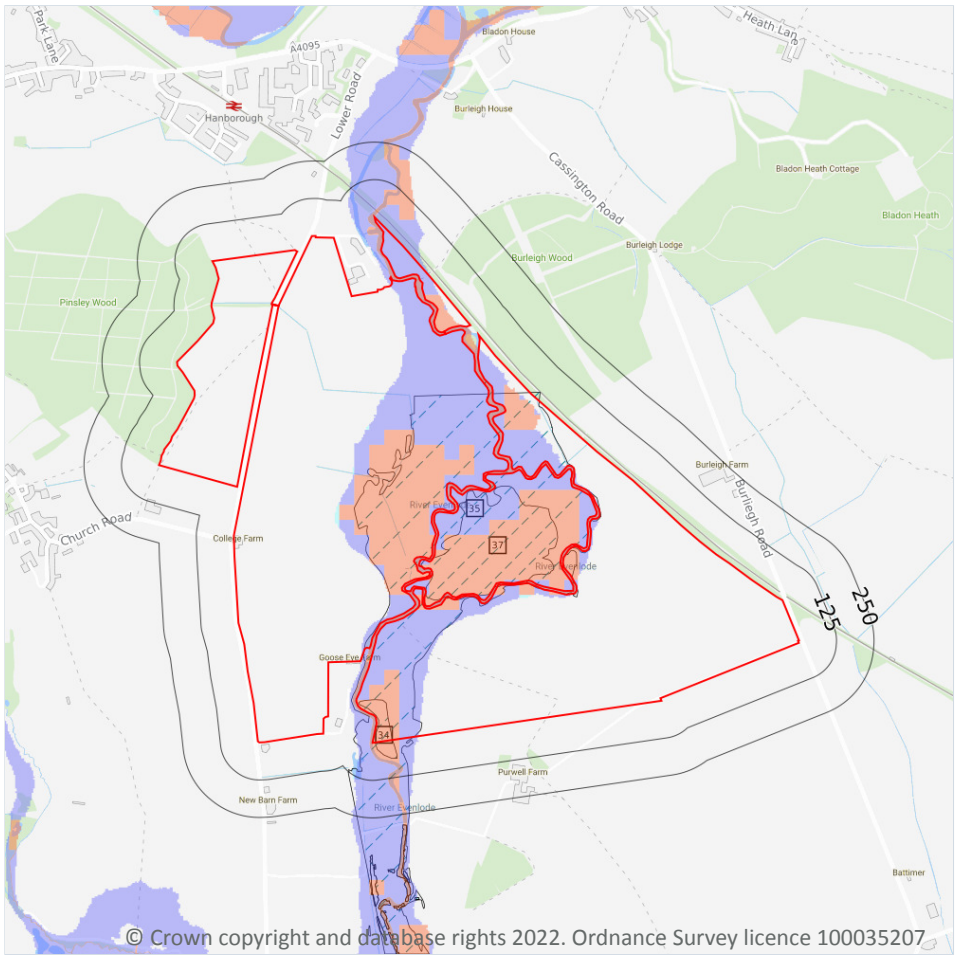
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 53**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
6	**On site**	**Kemble Forest Marble**	**GB40602G600500**	**Poor**	**Poor**	**Good**	**2019**
A	**On site**	**Burford Jurassic**	**GB40601G600400**	**Poor**	**Poor**	**Good**	**2019**

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

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

7.1 Risk of flooding from rivers and the sea

Records within 50m	39

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

Features are displayed on the River and coastal flooding map on **page 60**

Distance	Flood risk category
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	**3**

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 60**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
34	**On site**	**06octoberautumn1993**	**1993-01-01 1993-12-12**	**Main river**	**Channel capacity exceeded (no raised defences)**	**Fluvial**
35	**On site**	**Ea06winter13-14**	**2013-11-23 2014-02-28**	**Main river**	**Channel capacity exceeded (no raised defences)**	**Fluvial**
37	**On site**	**06aprileaster1998**	**1998-04-01 1998-04-30**	**Main river**	**Channel capacity exceeded (no raised 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.

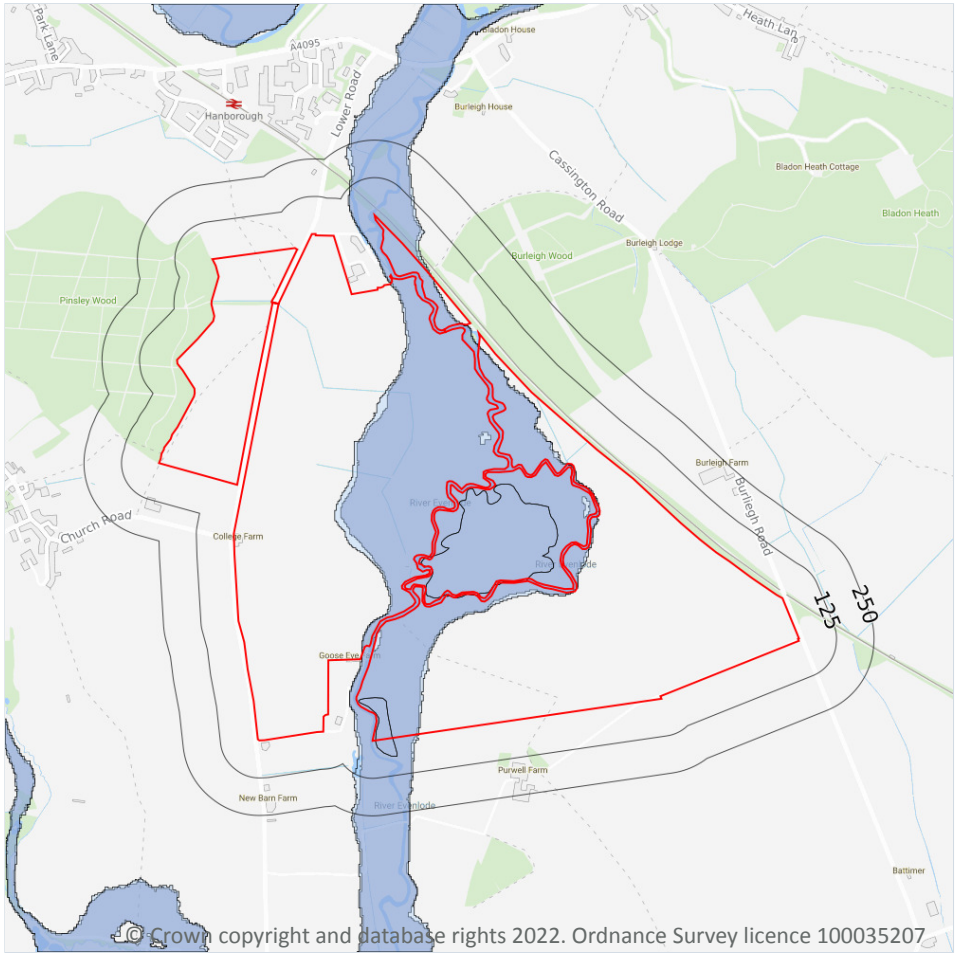
7.5 Flood Storage Areas

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 60**

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

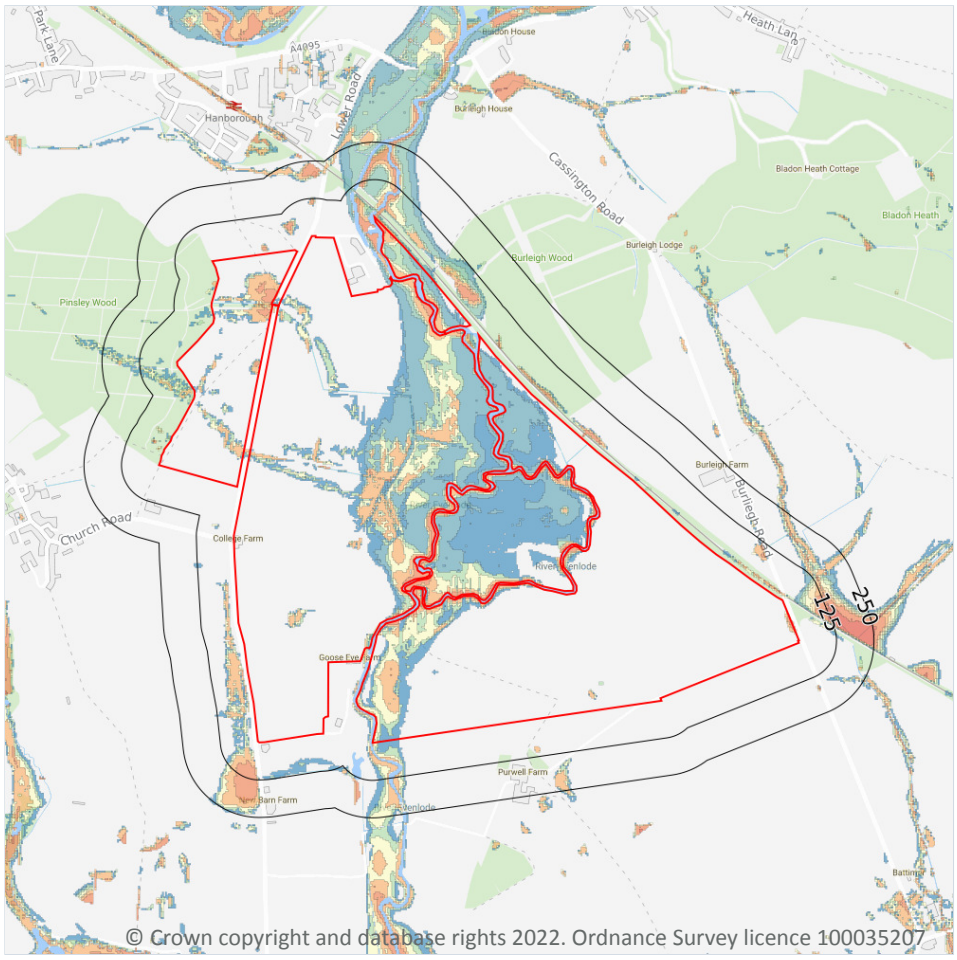
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 60**

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

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

8 Surface water flooding



Site Outline

Search buffers in metres (m)

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

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

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

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

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

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

Features are displayed on the Surface water flooding map on **page 65**

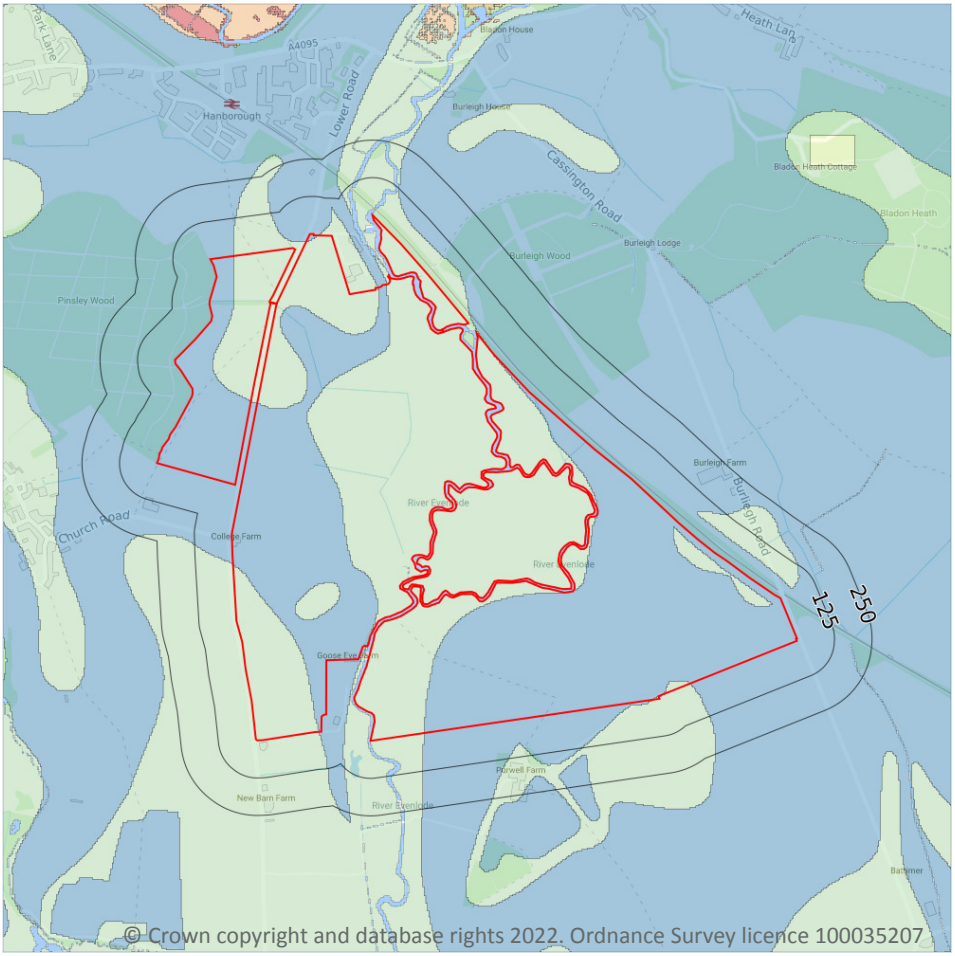
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

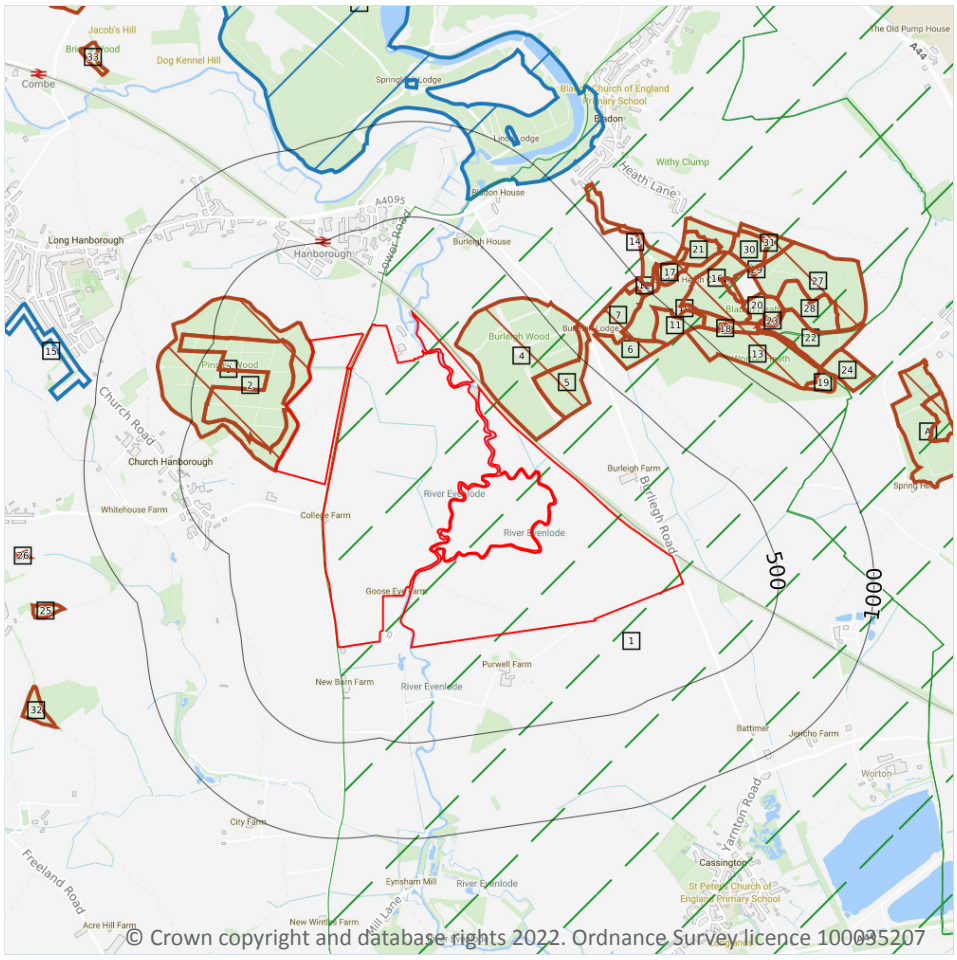
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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

Features are displayed on the Groundwater flooding map on **page 67**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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 68**

ID	Location	Name	Data source
9	661m NE	Blenheim Park	Natural England

ID	Location	Name	Data source
15	1037m W	Long Hanborough Gravel Pit	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	31

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 68**

ID	Location	Name	Woodland Type
2	**On site**	**Pinsley Wood**	**Ancient Replanted Woodland**
3	**On site**	**Pinsley Wood**	**Ancient & Semi-Natural Woodland**
4	26m NE	Burleigh Wood	Ancient Replanted Woodland
5	210m NE	Burleigh Wood	Ancient & Semi-Natural Woodland
6	617m NE	Bladon Heath	Ancient Replanted Woodland
7	646m NE	Bladon Heath	Ancient & Semi-Natural Woodland
10	744m NE	Bladon Heath	Ancient & Semi-Natural Woodland
11	820m NE	Bladon Heath	Ancient Replanted Woodland
12	913m NE	Bladon Heath	Ancient Replanted Woodland
13	932m NE	Worton Heath	Ancient Replanted Woodland
14	1008m NE	Bladon Heath	Ancient & Semi-Natural Woodland
16	1048m NE	Bladon Heath	Ancient & Semi-Natural Woodland
17	1064m NE	Bladon Heath	Ancient Replanted Woodland
18	1079m NE	Bladon Heath	Ancient Replanted Woodland
19	1119m NE	Worton Heath	Ancient & Semi-Natural Woodland
20	1206m NE	Bladon Heath	Ancient Replanted Woodland

ID	Location	Name	Woodland Type
21	1216m NE	Bladon Heath	Ancient Replanted Woodland
22	1224m NE	Worton Heath?	Ancient & Semi-Natural Woodland
23	1246m NE	Worton Heath	Ancient & Semi-Natural Woodland
24	1254m NE	Unknown	Ancient & Semi-Natural Woodland
A	1317m E	Begbroke Wood	Ancient & Semi-Natural Woodland
25	1321m SW	The Thrift	Ancient & Semi-Natural Woodland
26	1366m W	The Thrift	Ancient & Semi-Natural Woodland
27	1378m NE	Bladon Heath	Ancient & Semi-Natural Woodland
28	1390m NE	Bladon Heath	Ancient Replanted Woodland
29	1420m NE	Bladon Heath	Ancient Replanted Woodland
30	1427m NE	Bladon Heath	Ancient Replanted Woodland
A	1480m NE	Begbroke Wood	Ancient Replanted Woodland
31	1491m NE	Bladon Heath	Ancient & Semi-Natural Woodland
32	1537m W	Vincents Wood	Ancient & Semi-Natural Woodland
33	1759m NW	Brice's 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	2

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

Features are displayed on the Environmental designations map on **page 68**

ID	Location	Name	Local Authority name
1	**On site**	**Oxford**	**West Oxfordshire**
8	650m E	Oxford	Cherwell

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	15

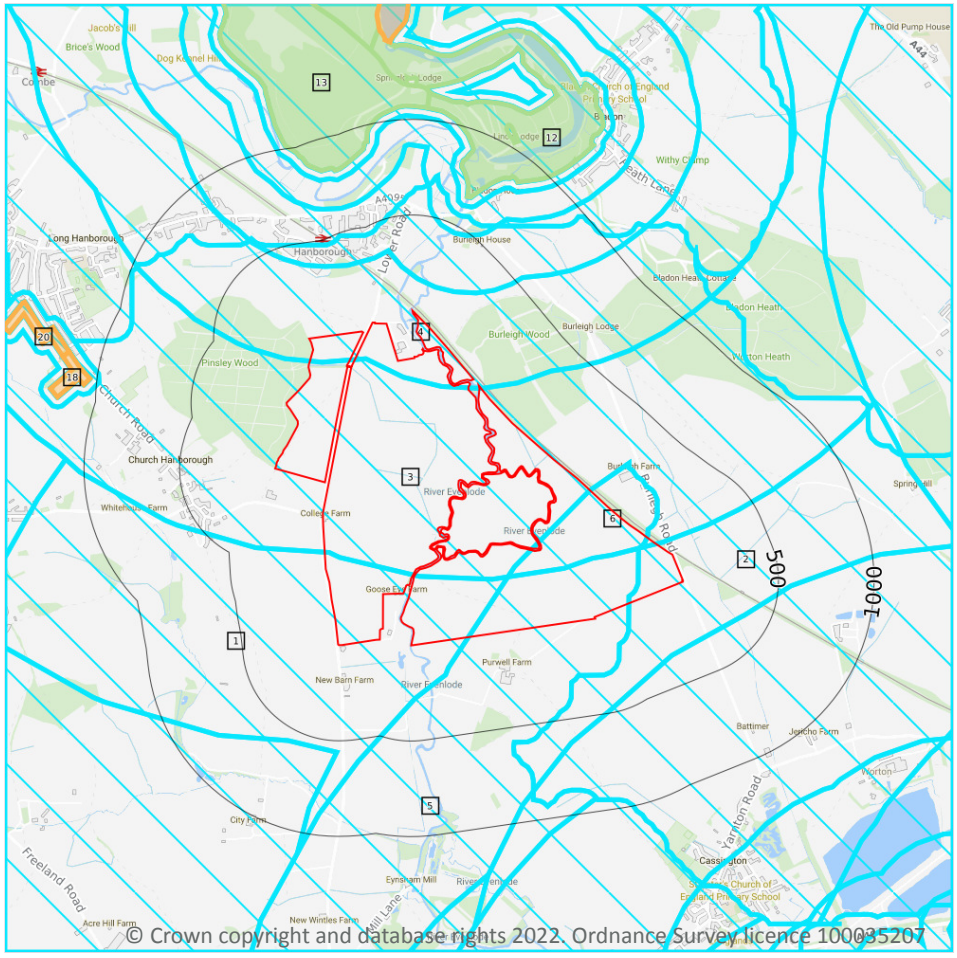
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	**Evenlode (Glyme to Thames) NVZ**	**Surface Water**	**473**	**Existing**
On site	**Evenlode (Glyme to Thames) NVZ**	**Surface Water**	**473**	**Existing**
On site	**THAMES (LEACH TO EVENLODE) NVZ**	**Surface Water**	**482**	**Existing**
359m W	Evenlode (Bledington to Glyme confluence) NVZ	Surface Water	475	Existing
497m W	Cotswold Jurassic	Groundwater	83	Existing
675m N	Glyme (Dorn confluence to Evenlode) NVZ	Surface Water	474	Existing
693m N	Cotswold Jurassic	Groundwater	83	Existing
811m N	Glyme (Dorn confluence to Evenlode) NVZ	Surface Water	474	Existing

Location	Name	Type	NVZ ID	Status
815m N	Evenlode (Glyme to Thames) NVZ	Surface Water	473	Existing
821m N	Glyme (Dorn confluence to Evenlode) NVZ	Surface Water	474	Existing
837m N	Evenlode (Bledington to Glyme confluence) NVZ	Surface Water	475	Existing
837m N	Evenlode (Bledington to Glyme confluence) NVZ	Surface Water	475	Existing
838m N	Evenlode (Glyme to Thames) NVZ	Surface Water	473	Existing
1215m E	Cherwell (Ray to Thames) and Woodeaton Brook NVZ	Surface Water	472	Existing
1640m SW	Chil and Limb Brooks (source to B4044) NVZ	Surface Water	480	Existing

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

SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site	6

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 75**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t). Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
2	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t). Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.
3	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

ID	Location	Type of developments requiring consultation
4	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Wind and Solar - 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. 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 & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 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 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m² or any development needing its own water supply .
5	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t). Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. 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.

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

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**6**

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 75**

ID: 12
Location: 661m NE
SSSI name: Blenheim Park
Unit name: 3
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Invert. assemblage A211 heartwood decay	Favourable	17/06/2020
Invert. assemblage A212 bark and sapwood decay	Favourable	17/06/2020
Invert. assemblage A213 fungal fruiting body	Favourable	17/06/2020

ID: 13
Location: 820m N
SSSI name: Blenheim Park
Unit name: 2
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Invert. assemblage A211 heartwood decay	Favourable	17/06/2020
Invert. assemblage A212 bark and sapwood decay	Favourable	17/06/2020
Invert. assemblage A213 fungal fruiting body	Favourable	17/06/2020

ID: 18
Location: 1037m W
SSSI name: Long Hanborough Gravel Pit
Unit name: South
Broad habitat: Earth Heritage
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
ED - Quaternary of the Thames	Unfavourable - Declining	12/12/2012

ID: 20
Location: 1169m W
SSSI name: Long Hanborough Gravel Pit
Unit name: North
Broad habitat: Earth Heritage
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
ED - Quaternary of the Thames	Unfavourable - Declining	11/12/2012

ID: 26
Location: 1381m N
SSSI name: Blenheim Park
Unit name: 1
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

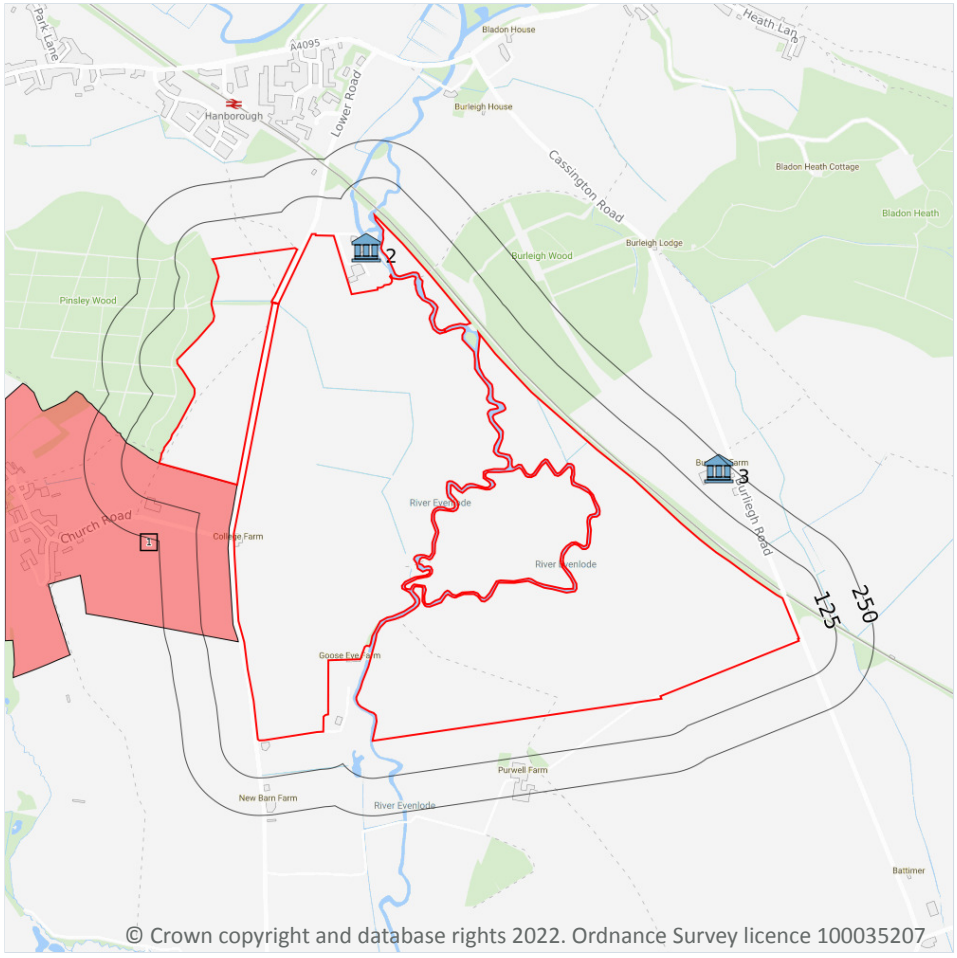
Feature name	Feature condition	Date of assessment
Invert. assemblage A211 heartwood decay	Favourable	17/06/2020
Invert. assemblage A212 bark and sapwood decay	Favourable	17/06/2020
Invert. assemblage A213 fungal fruiting body	Favourable	17/06/2020

ID: 27
Location: 1410m N
SSSI name: Blenheim Park
Unit name: 4
Broad habitat: Standing Open Water And Canals
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of breeding birds - Great crested grebe, Podiceps cristatus	Favourable	10/11/2011
Aggregations of non-breeding birds - Gadwall, Anas strepera	Favourable	10/11/2011
Mesotrophic lakes	Unfavourable - Declining	10/11/2011

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	2

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

Features are displayed on the Visual and cultural designations map on **page 81**

ID	Location	Name	Grade	Reference Number	Listed date
2	49m W	Mill Farmhouse and Attached Millbuilding, Hanborough, West Oxfordshire, Oxfordshire, OX29	II	1283600	29/06/1988
3	221m NE	Burleigh Farmhouse and Attached Barn and Stable Range, Cassington, West Oxfordshire, Oxfordshire, OX29	II	1198551	29/06/1988

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

11.5 Conservation Areas

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 81**

ID	Location	Name	District	Date of designation
1	**On site**	**Church Hanborough**	**West Oxfordshire**	**10/05/1990**

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

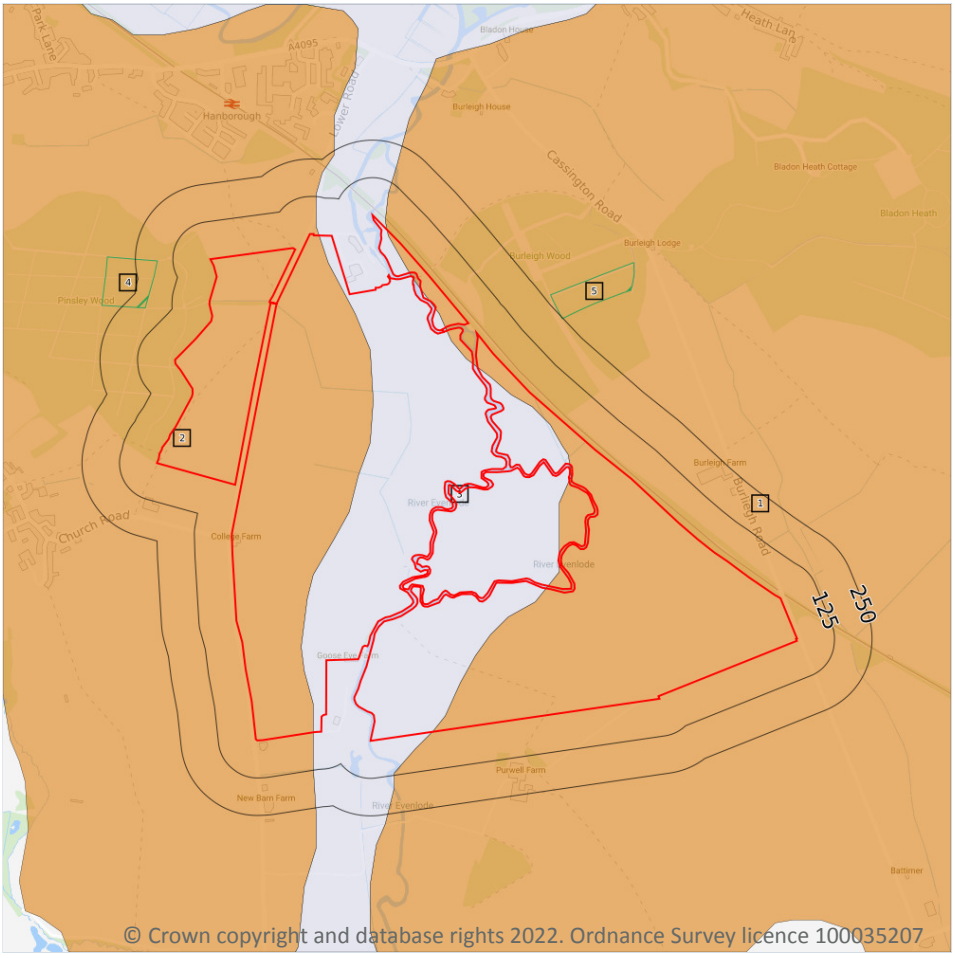
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m	3

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

Features are displayed on the Agricultural designations map on **page 84**

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

ID	Location	Classification	Description
2	**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.**
3	**On site**	**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.**

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	**2**

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

Features are displayed on the Agricultural designations map on **page 84**

ID	Location	Description	Reference	Application date
4	177m W	Selective Fell/Thin (Conditional)	019/84/18-19	01/01/1970
5	248m NE	Clear Fell (Conditional)	019/84/18-19	01/01/1970

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	7

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

Location	Reference	Scheme	Start Date	End date
On site	**AG00358666**	**Entry Level plus Higher Level Stewardship**	**01/03/2012**	**28/02/2022**
On site	**AG00358666**	**Entry Level plus Higher Level Stewardship**	**01/03/2012**	**28/02/2022**
On site	**AG00358666**	**Entry Level plus Higher Level Stewardship**	**01/03/2012**	**28/02/2022**
22m NE	AG00358666	Entry Level plus Higher Level Stewardship	01/03/2012	28/02/2022
27m N	AG00358666	Entry Level plus Higher Level Stewardship	01/03/2012	28/02/2022
120m N	AG00358666	Entry Level plus Higher Level Stewardship	01/03/2012	28/02/2022
170m E	AG00713123	Entry Level Stewardship	01/11/2013	31/10/2018

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	8

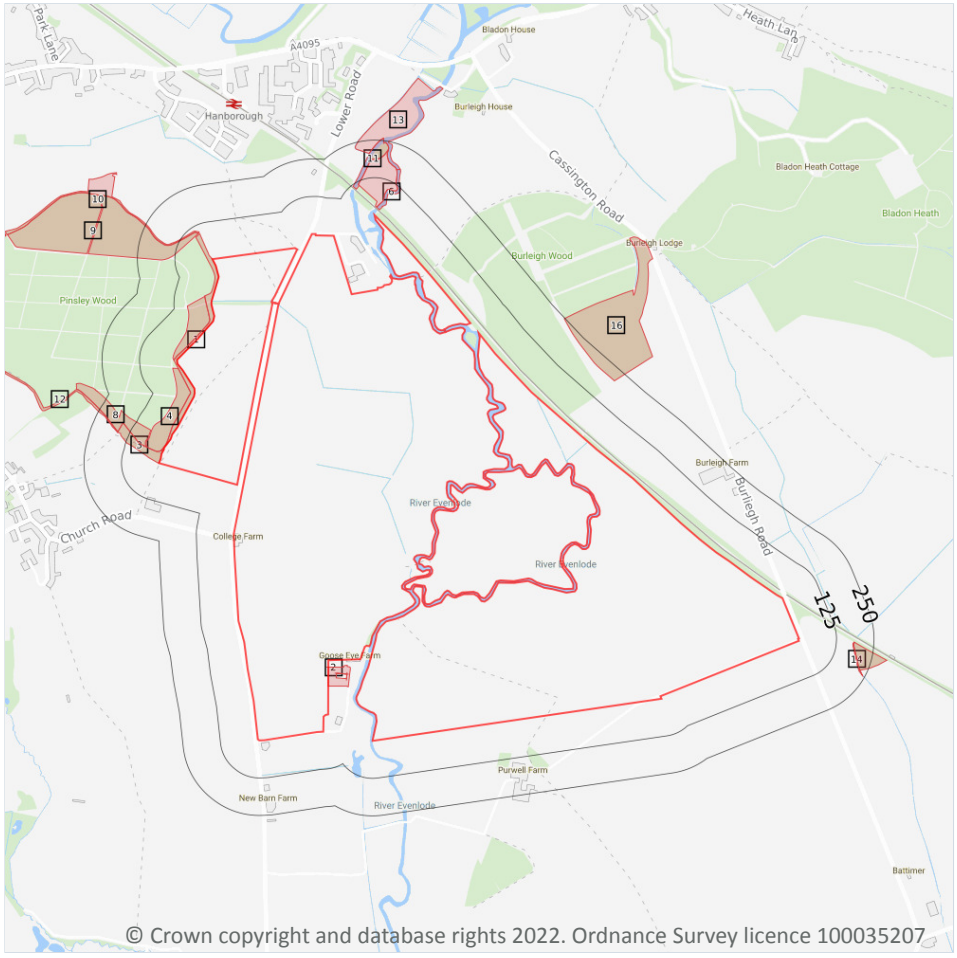
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
On site	**474798**	**Countryside Stewardship (Middle Tier)**	**01/01/2018**	**31/12/2022**
On site	**325436**	**Countryside Stewardship (Middle Tier)**	**01/01/2017**	**31/12/2021**
On site	**474798**	**Countryside Stewardship (Middle Tier)**	**01/01/2018**	**31/12/2022**
On site	**474798**	**Countryside Stewardship (Middle Tier)**	**01/01/2018**	**31/12/2022**
22m E	325436	Countryside Stewardship (Middle Tier)	01/01/2017	31/12/2021

Location	Reference	Scheme	Start Date	End Date
56m N	474798	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022
133m E	325436	Countryside Stewardship (Middle Tier)	01/01/2017	31/12/2021
170m E	1029566	Countryside Stewardship (Middle Tier)	01/01/2021	31/12/2025

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	19

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 88**

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	On site	Traditional orchard	Main habitat: TORCH (INV > 50%)
3	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	On site	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset

ID	Location	Main Habitat	Other habitats
4	1m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	7m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	24m NE	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
A	27m E	Traditional orchard	Main habitat: TORCH (INV > 50%)
7	28m N	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
A	48m S	Traditional orchard	Main habitat: TORCH (INV > 50%)
8	56m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	95m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	98m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
11	106m NW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
12	162m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
13	169m NE	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
14	181m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
15	183m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
16	210m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	**0**

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	**0**

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

This data is sourced from Natural England.

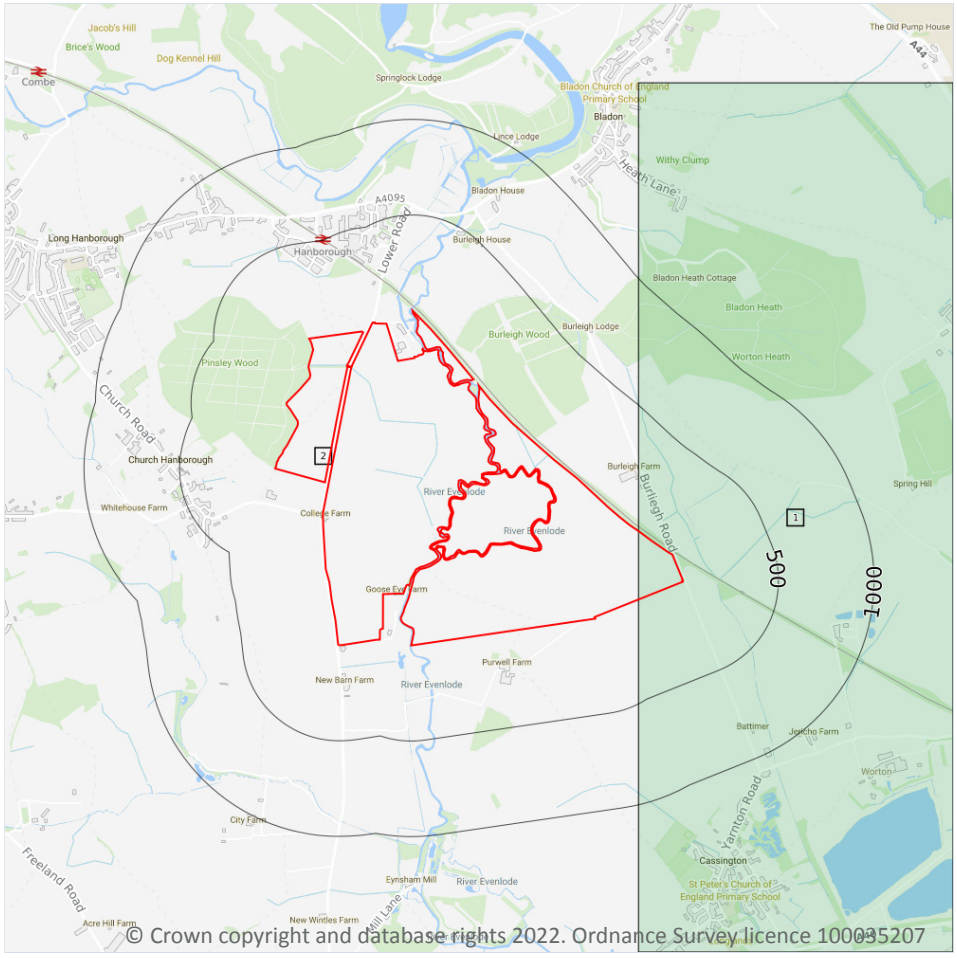
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m	2

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 91**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SP41SE**
2	**On site**	**No coverage**	**No coverage**	**No coverage**	**No coverage**	**NoCov**

This data is sourced from the British Geological Survey.

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

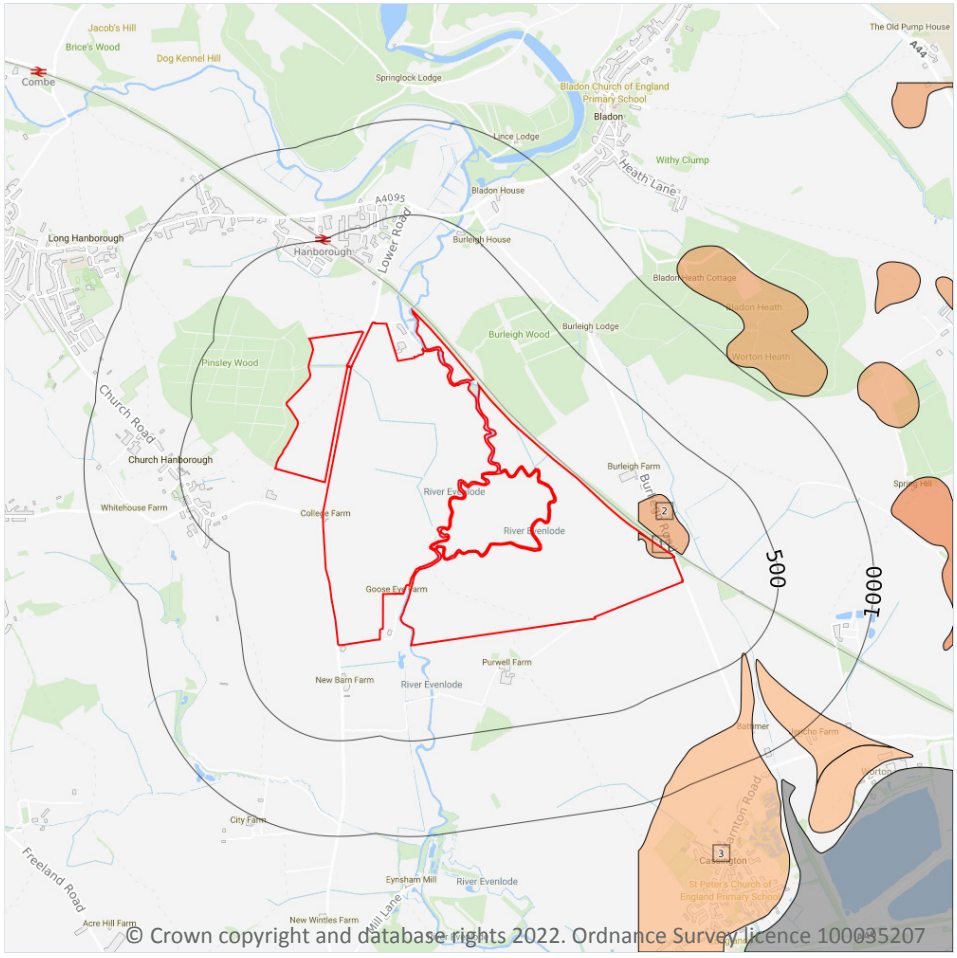
14.2 Artificial and made ground (10k)

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 **3**

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 93**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**WV-XSV**	**Wolvercote Sand And Gravel Member - Sand And Gravel**	**Sand And Gravel**
2	27m NE	WV-XSV	Wolvercote Sand And Gravel Member - Sand And Gravel	Sand And Gravel
3	490m SE	SURA-XSV	Summertown-radley Sand And Gravel Member - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

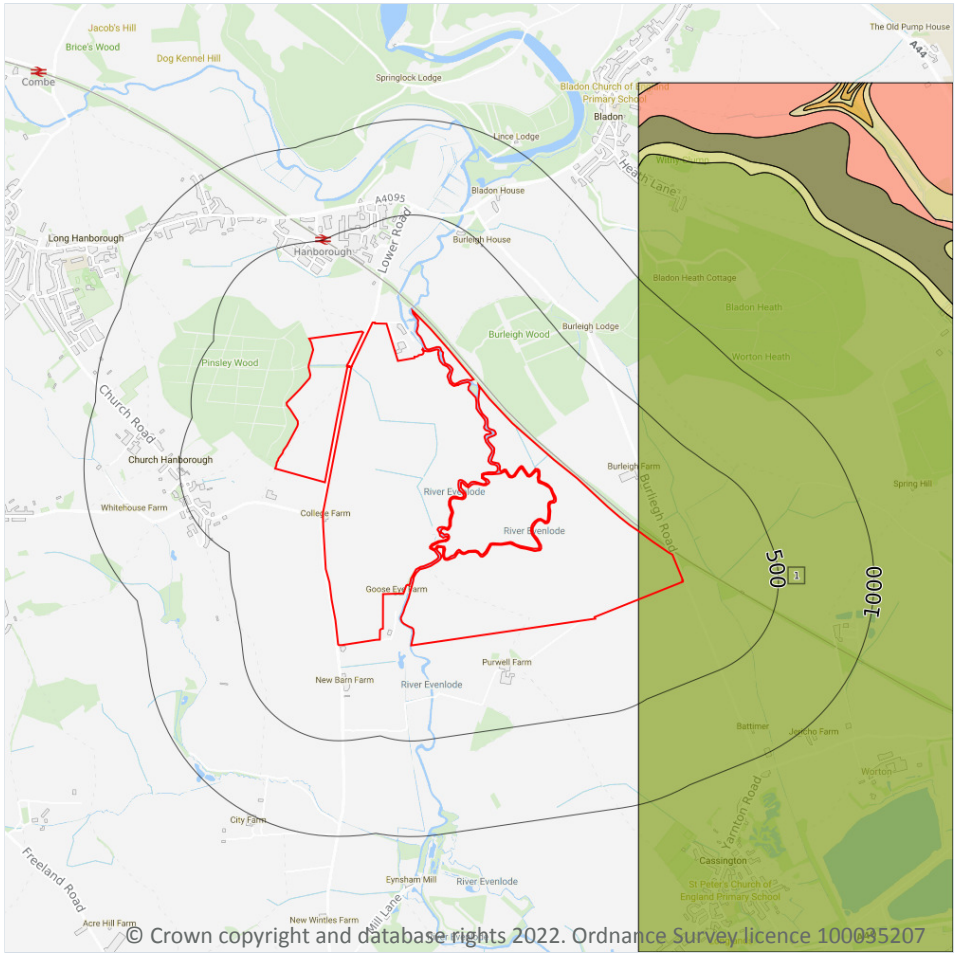
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 95**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**OXWW-MDST**	**Oxford Clay Formation And West Walton Formation (undifferentiated) - Mudstone**	**Oxfordian Age - Callovian Age**

This data is sourced from the British Geological Survey.

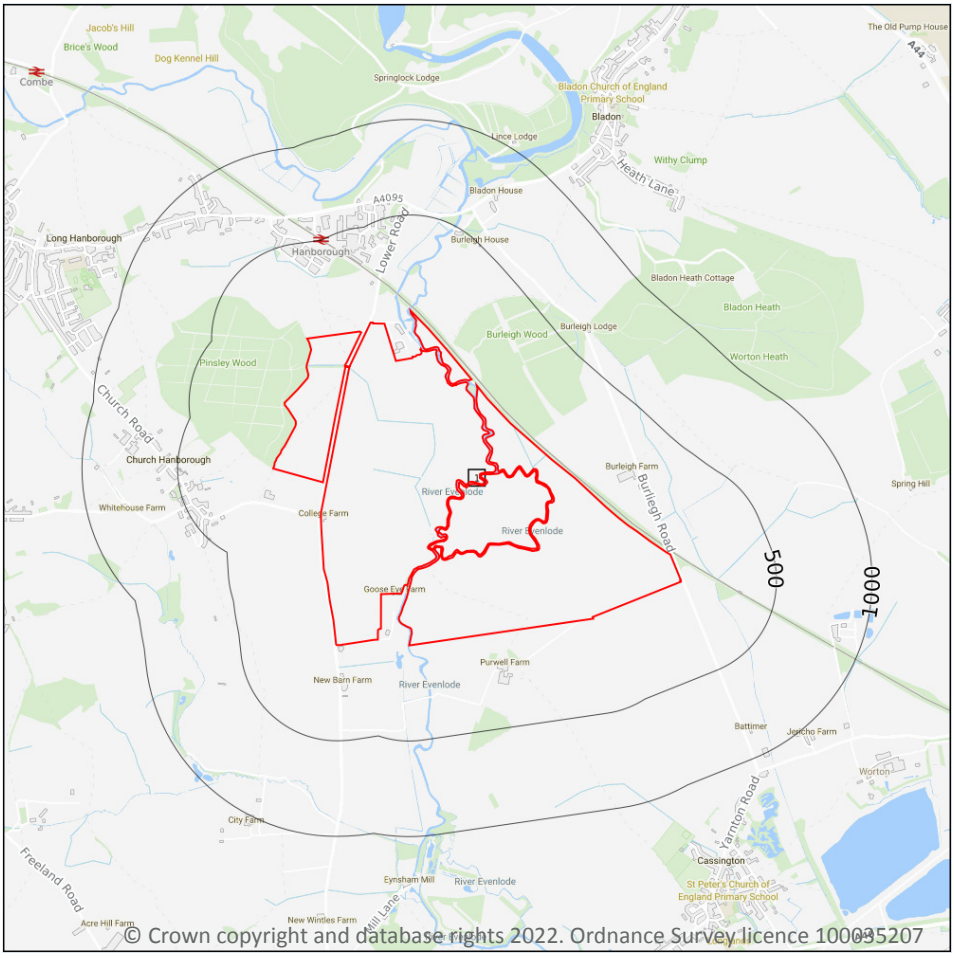
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

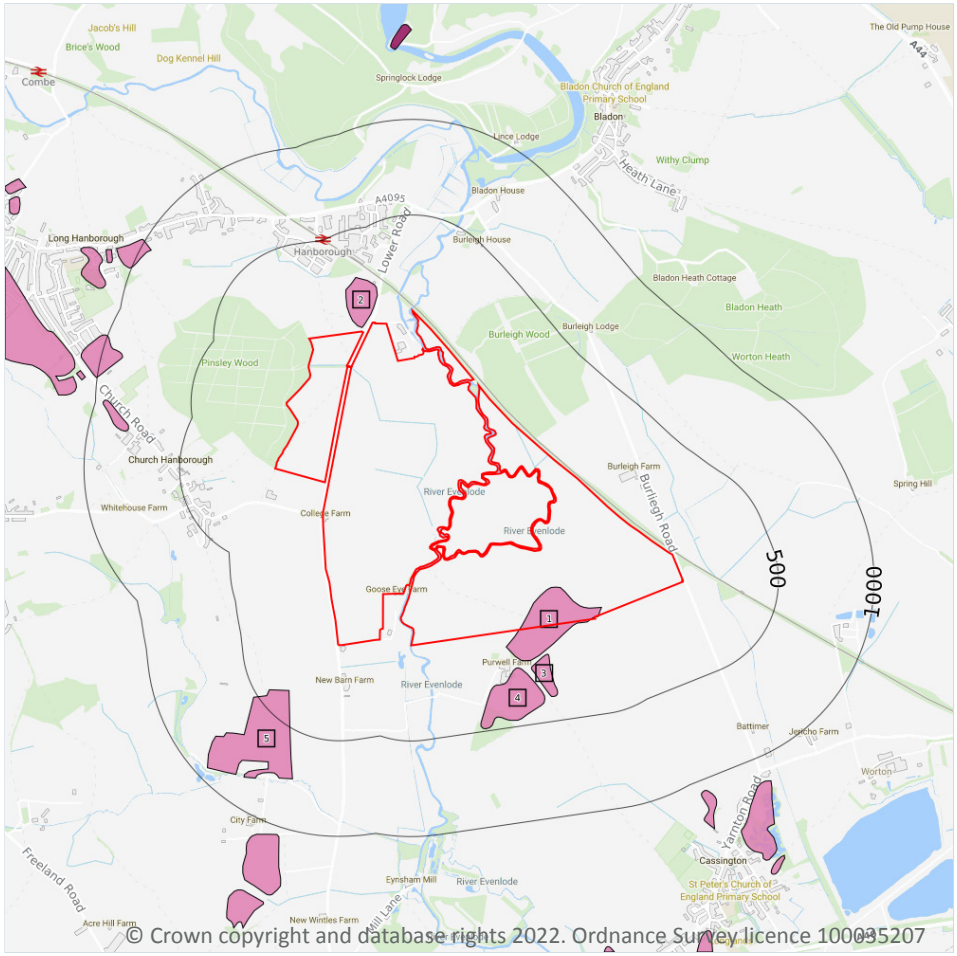
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 97**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW236_witney_v4**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	5

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 98**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**WGR-VOID**	**WORKED GROUND (UNDIVIDED)**	**VOID**
2	21m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
3	148m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
4	196m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

ID	Location	LEX Code	Description	Rock description
5	352m SW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.

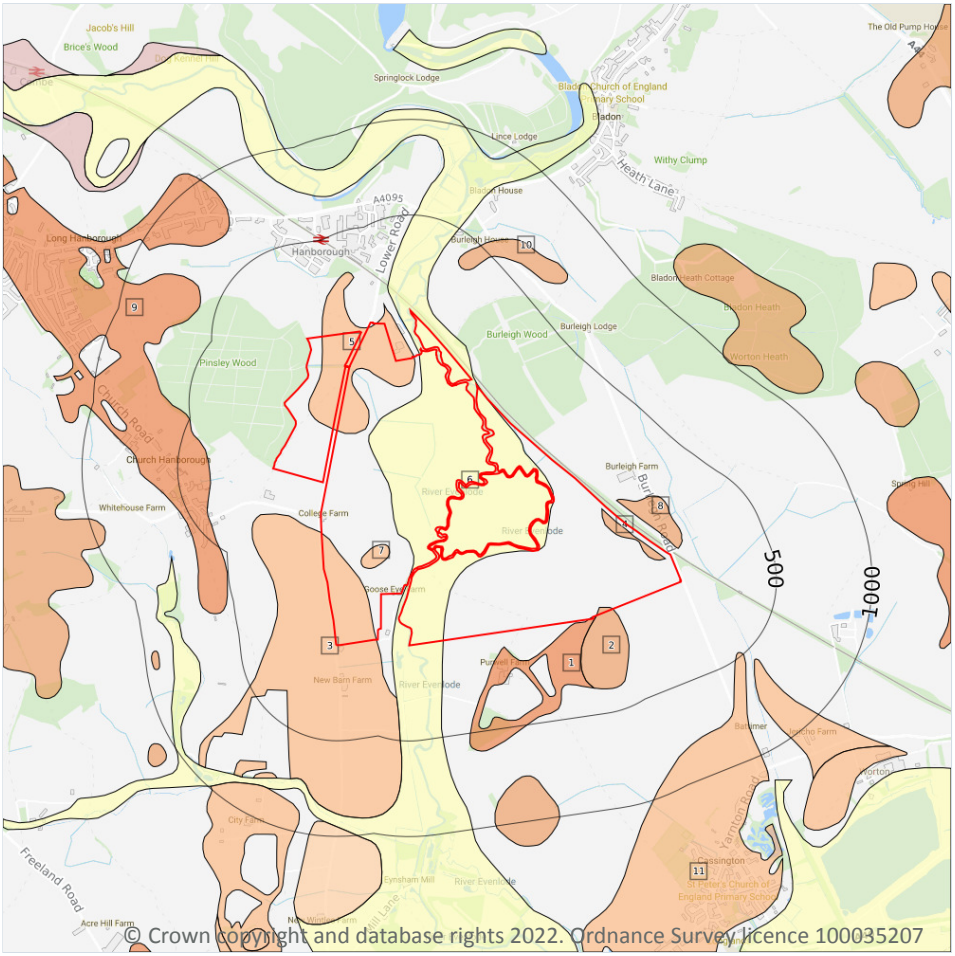
15.3 Artificial ground permeability (50k)

Records within 50m	**0**

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



15.4 Superficial geology (50k)

Records within 500m	11

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 100**

ID	Location	LEX Code	Description	Rock description
1	On site	HAN-XSV	HANBOROUGH GRAVEL MEMBER	SAND AND GRAVEL
2	On site	NDR-XSV	NORTHERN DRIFT FORMATION	SAND AND GRAVEL
3	On site	SURA-XSV	SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER	SAND AND GRAVEL
4	On site	WV-XSV	WOLVERCOTE SAND AND GRAVEL MEMBER	SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
5	**On site**	**SURAU-XSV**	**SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER, UPPER FACET**	**SAND AND GRAVEL**
6	**On site**	**ALV-XCZSV**	**ALLUVIUM**	**CLAY, SILT, SAND AND GRAVEL**
7	**On site**	**SURA-XSV**	**SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER**	**SAND AND GRAVEL**
8	48m NE	WV-XSV	WOLVERCOTE SAND AND GRAVEL MEMBER	SAND AND GRAVEL
9	332m W	HAN-XSV	HANBOROUGH GRAVEL MEMBER	SAND AND GRAVEL
10	346m NE	WV-XSV	WOLVERCOTE SAND AND GRAVEL MEMBER	SAND AND GRAVEL
11	477m SE	SURA-XSV	SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m **9**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**High**	**Very Low**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
48m E	Intergranular	Very High	High

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

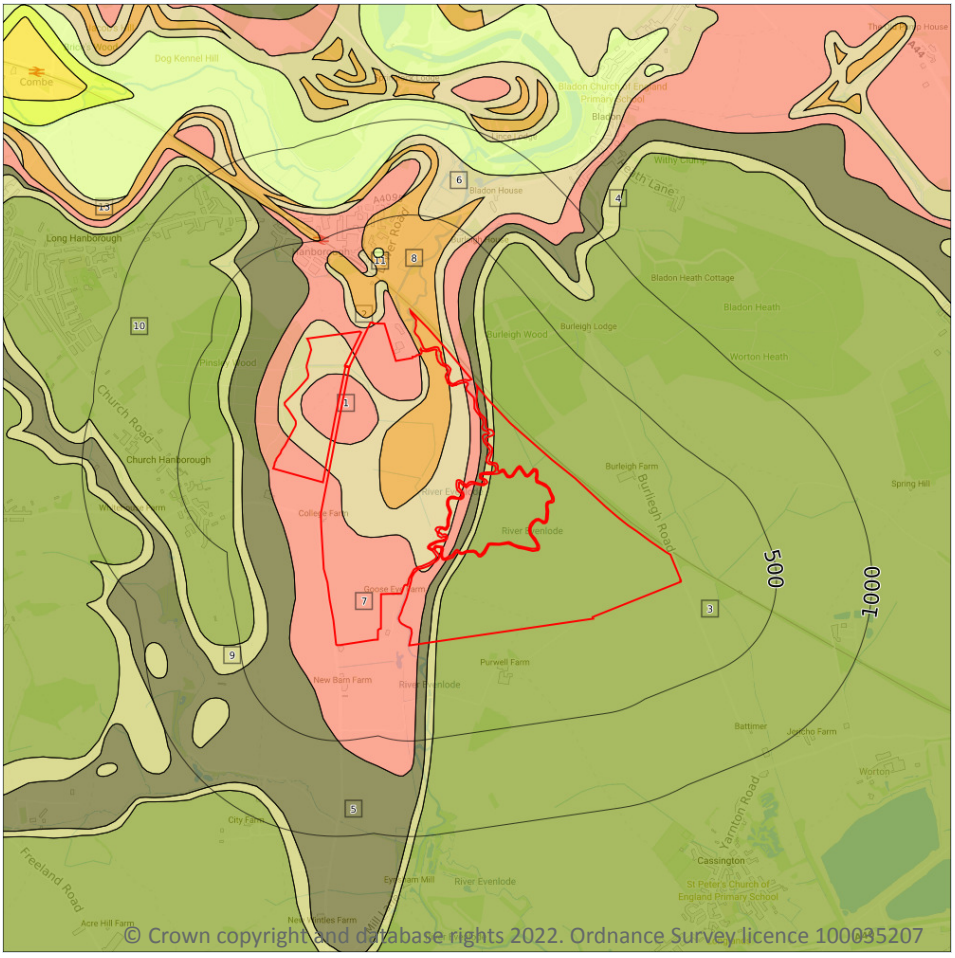
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

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 **13**

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 103**

ID	Location	LEX Code	Description	Rock age
1	On site	CB-LMST	CORNBRASH FORMATION - LIMESTONE	BATHONIAN
2	On site	FMB-MDST	FOREST MARBLE FORMATION - MUDSTONE	BATHONIAN
3	On site	OXWW-MDST	OXFORD CLAY FORMATION AND WEST WALTON FORMATION (UNDIFFERENTIATED) - MUDSTONE	CALLOVIAN

ID	Location	LEX Code	Description	Rock age
4	**On site**	**KLS-SDSL**	**KELLAWAYS SAND MEMBER - SANDSTONE AND SILTSTONE, INTERBEDDED**	**CALLOVIAN**
5	**On site**	**KLC-MDST**	**KELLAWAYS CLAY MEMBER - MUDSTONE**	**CALLOVIAN**
6	**On site**	**FMB-MDST**	**FOREST MARBLE FORMATION - MUDSTONE**	**BATHONIAN**
7	**On site**	**CB-LMST**	**CORNBRASH FORMATION - LIMESTONE**	**BATHONIAN**
8	**On site**	**FMB-LMST**	**FOREST MARBLE FORMATION - LIMESTONE**	**BATHONIAN**
9	161m W	KLS-SDSL	KELLAWAYS SAND MEMBER - SANDSTONE AND SILTSTONE, INTERBEDDED	CALLOVIAN
10	208m W	PET-MDST	PETERBOROUGH MEMBER - MUDSTONE	CALLOVIAN
11	241m N	FMB-MDST	FOREST MARBLE FORMATION - MUDSTONE	BATHONIAN
12	320m NW	WHL-LMST	WHITE LIMESTONE FORMATION - LIMESTONE	BATHONIAN
13	498m N	FMB-LMST	FOREST MARBLE FORMATION - LIMESTONE	BATHONIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m **9**

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	**Mixed**	**Moderate**	**Moderate**
On site	**Fracture**	**Very High**	**High**
On site	**Fracture**	**Low**	**Very Low**
On site	**Fracture**	**Very High**	**High**
On site	**Fracture**	**Very High**	**High**
On site	**Fracture**	**Low**	**Very Low**
On site	**Fracture**	**Low**	**Very Low**
On site	**Fracture**	**Low**	**Very Low**
On site	**Fracture**	**Low**	**Very Low**

This data is sourced from the British Geological Survey.

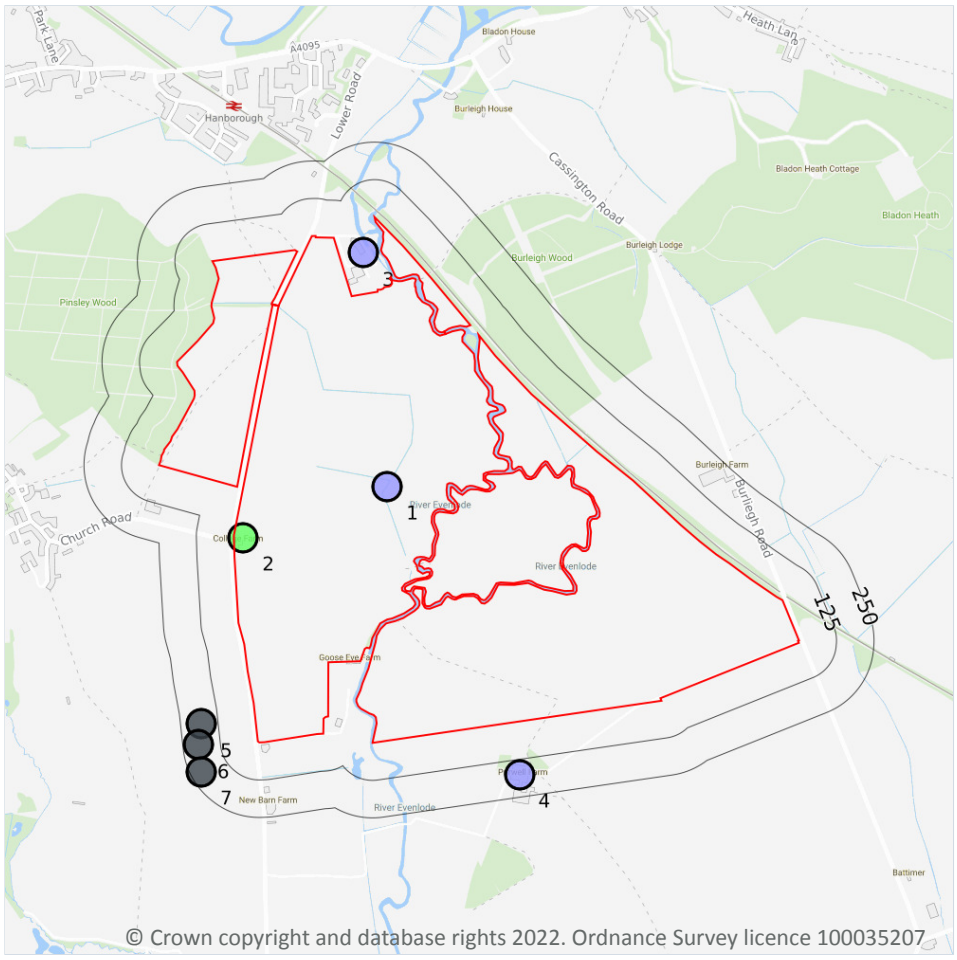
15.10 Bedrock faults and other linear features (50k)

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 **7**

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

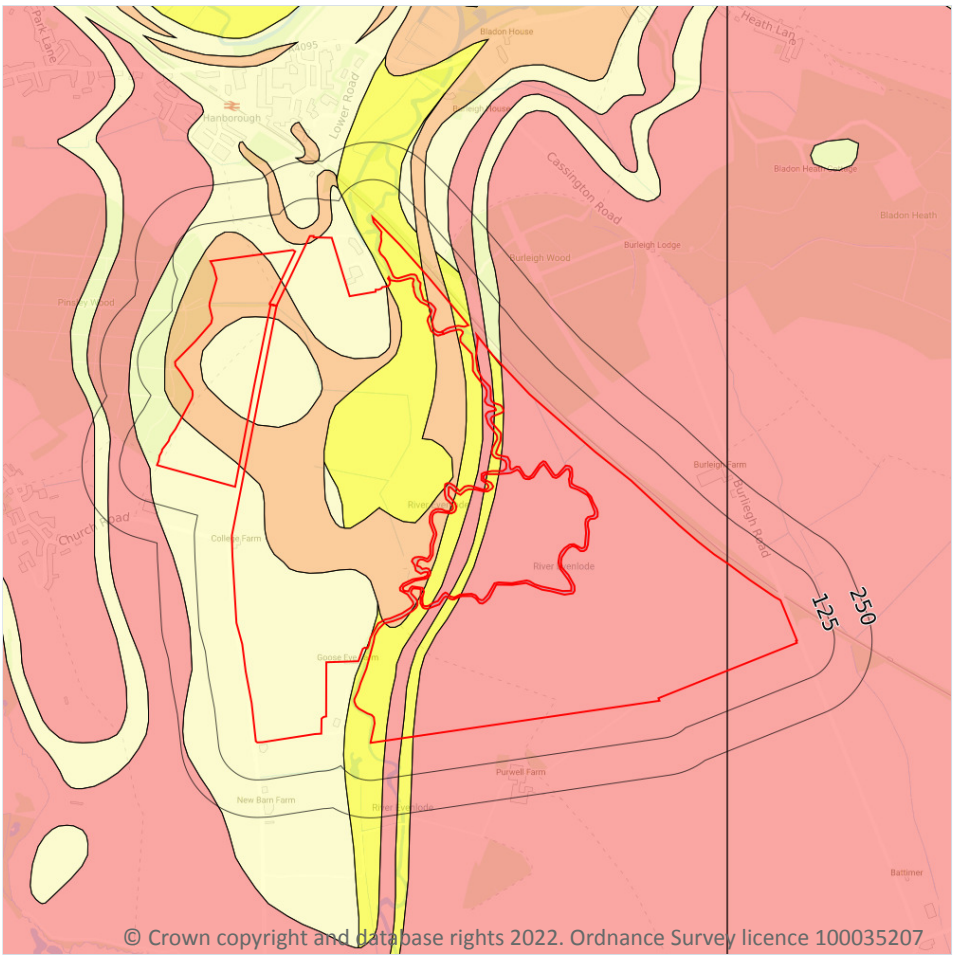
Features are displayed on the Boreholes map on **page 106**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	**On site**	**443860 212910**	**NEW BARN CHURCH HANBOROUGH**	**4.0**	**N**	**330903**
2	**On site**	**443380 212740**	**COLLEGE FARM HANBOROUGH**	**21.33**	**N**	**330909**
3	60m W	443780 213690	HANBOROUGH MILL HANBOROUGH	6.7	N	330908

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	176m S	444300 211950	PURWELL FARM	-2.0	N	330977
5	181m W	443240 212120	CHURCH HANBOROUGH E8/10	-	Y	N/A
6	199m W	443230 212050	CHURCH HANBOROUGH E8/9	-	Y	N/A
7	215m SW	443240 211960	CHURCH HANBOROUGH E8/4	-	Y	N/A

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	4

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

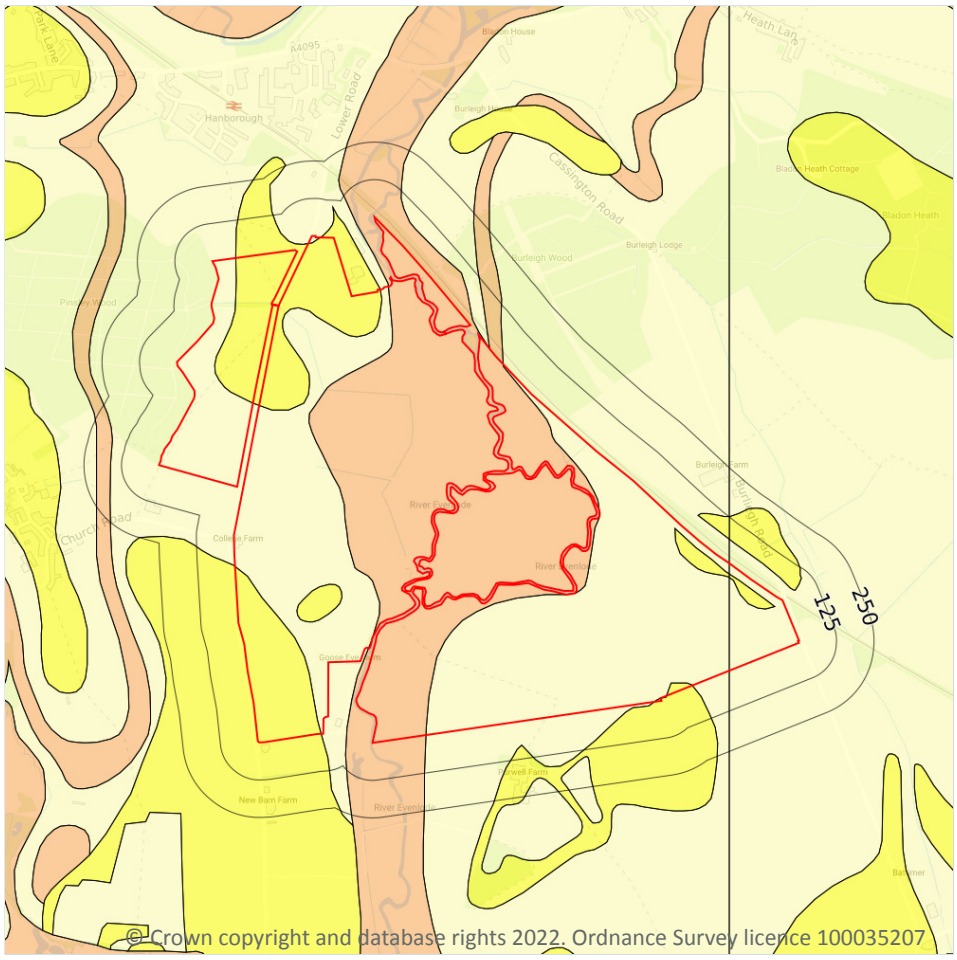
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 108**

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

Location	Hazard rating	Details
On site	**Moderate**	**Ground conditions predominantly high 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	4

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.

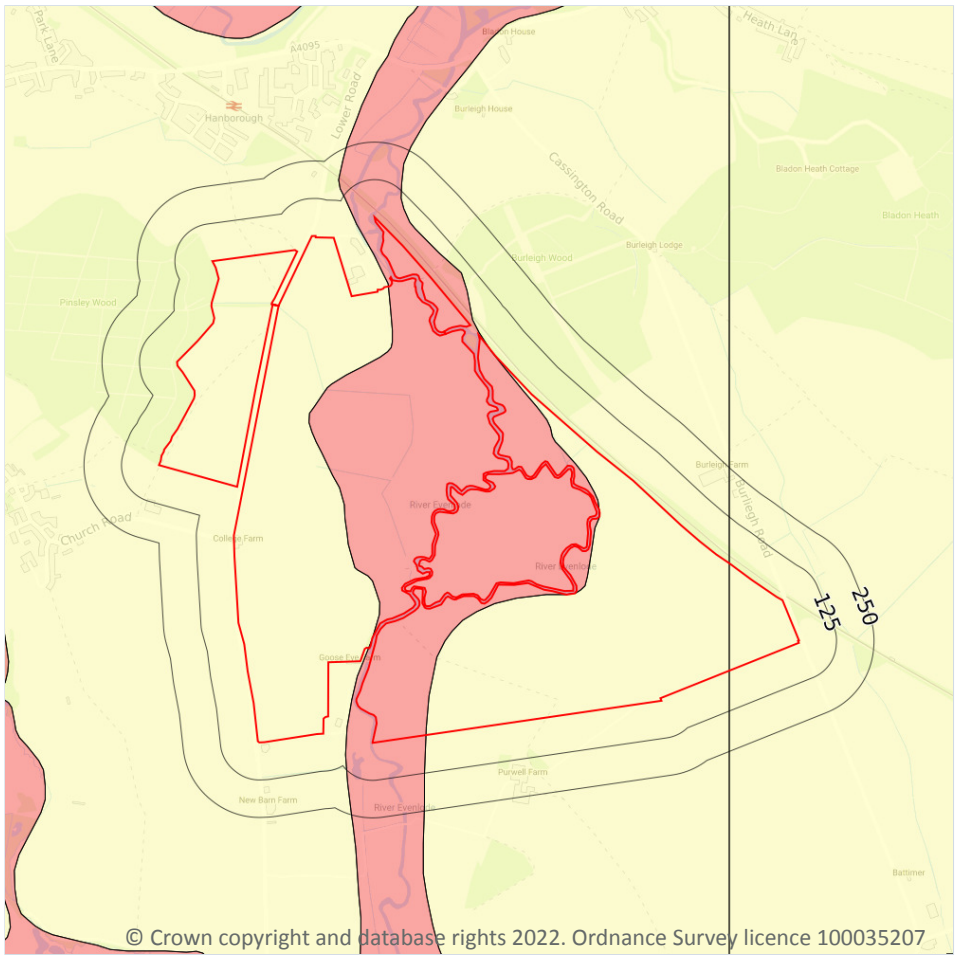
Features are displayed on the Natural ground subsidence - Running sands map on **page 110**

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

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**
On site	**Low**	**Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.**
48m NE	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	2

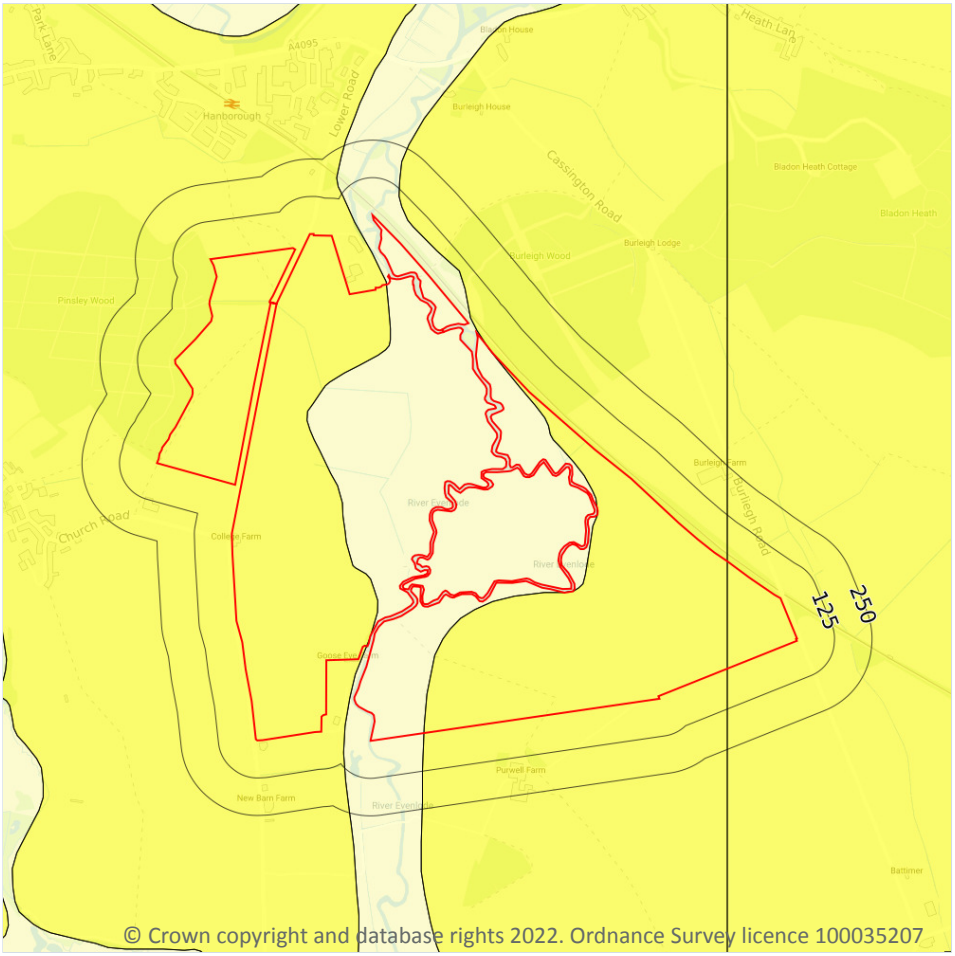
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 112**

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



17.4 Collapsible deposits

Records within 50m	2

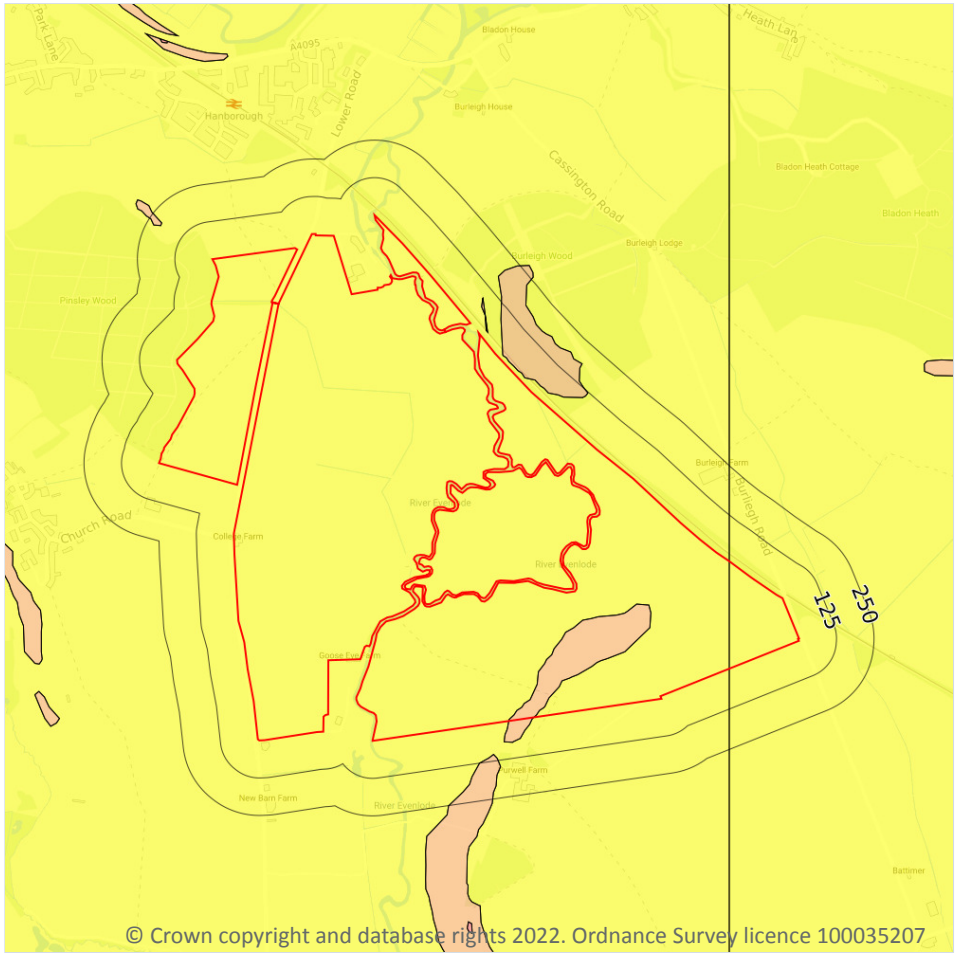
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 114**

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



17.5 Landslides

Records within 50m	4

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.

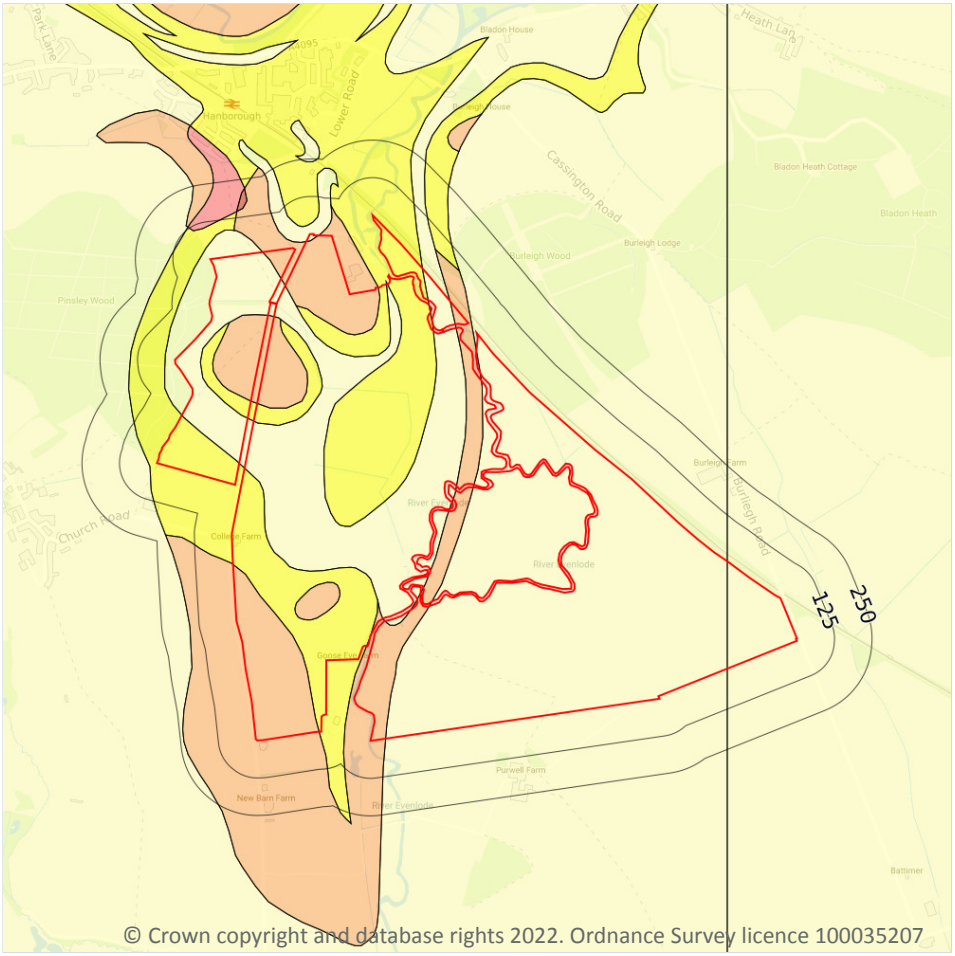
Features are displayed on the Natural ground subsidence - Landslides map on **page 115**

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.**

Location	Hazard rating	Details
On site	**Low**	**Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.**
15m NE	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
25m NE	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

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	3

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.

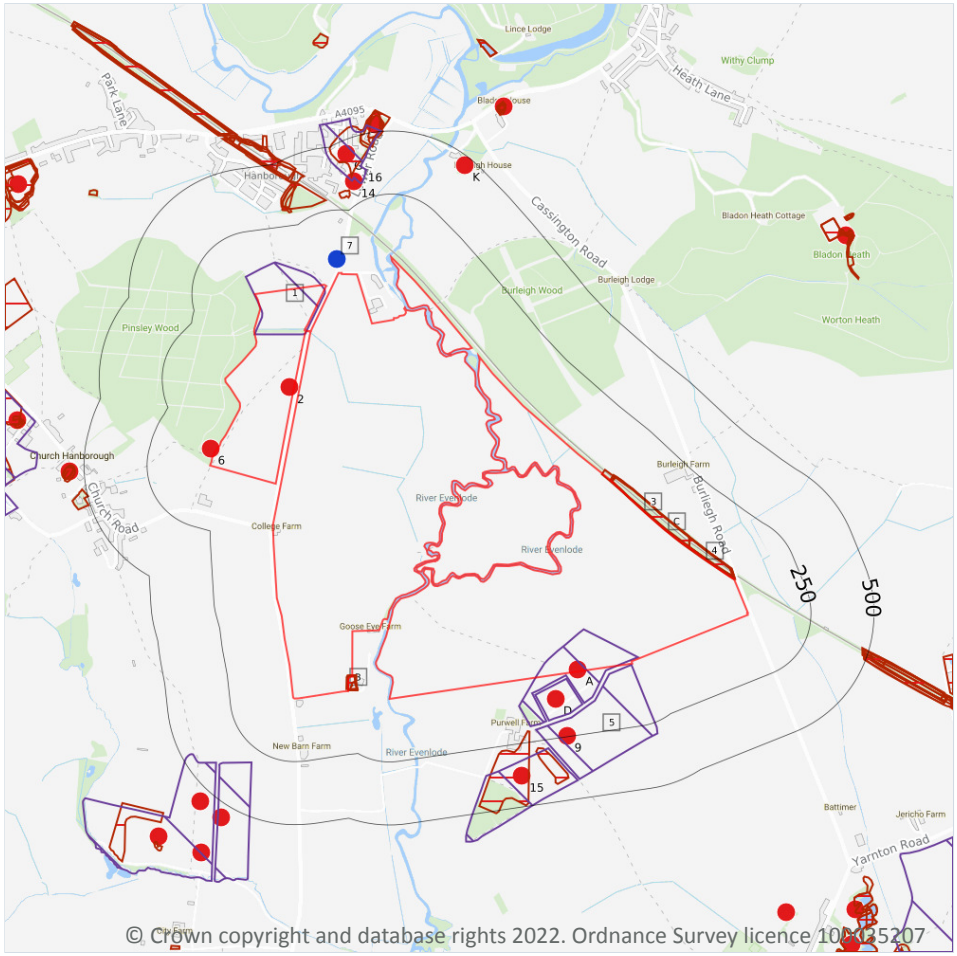
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 117**

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

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

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	1

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 119**

ID	Location	Details	Source
7	54m N	Type: Solution Pipe Superficial Geology: - Bedrock Geology: Cornbrash Formation, Great Oolite Group	Simple Bibliography: - Full Bibliography: RICHARDSON, L., ARKELL, W.J. AND DINES, H.G., Geology of the country around Witney., HMSO, London., 1946; British Geological Survey Memoir (Sheet 236) Confidentiality: Data source can be revealed, data can be used freely

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	**12**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 119**

ID	Location	Details	Description
2	**On site**	**Name: Church Hanborough Gravel Pit** **Address: Church Handborough, Long Hanborough, WOODSTOCK, Oxfordshire** **Commodity: Sand & Gravel** **Status: Ceased**	**Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site** **Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority**
A	**On site**	**Name: Purwell Farm Gravel Pit** **Address: CASSINGTON, Oxfordshire** **Commodity: Sand & Gravel** **Status: Ceased**	**Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site** **Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority**
6	23m NW	Name: Pinstey Wood Quarry Address: Church Handborough, Long Hanborough, WOODSTOCK, Oxfordshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

ID	Location	Details	Description
D	94m S	Name: Purwell Farm Gravel Pit Address: CASSINGTON, Oxfordshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
9	244m S	Name: Purwell Farm Gravel Pit Address: CASSINGTON, Oxfordshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
14	335m NW	Name: Bladon Quarries Address: Bladon, WOODSTOCK, Oxfordshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
15	376m S	Name: Purwell Farm Gravel Pit Address: CASSINGTON, Oxfordshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
16	384m N	Name: Bladon Quarries Address: Bladon, WOODSTOCK, Oxfordshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
G	448m NW	Name: Southrah Address: Long Hanborough, WITNEY, Oxfordshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

ID	Location	Details	Description
K	467m NE	Name: Hanborough Folly Quarry Address: Bladon, WOODSTOCK, Oxfordshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
K	467m NE	Name: Hanborough Folly Quarry Address: Bladon, WOODSTOCK, Oxfordshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
G	489m N	Name: Bladon Quarries Address: Bladon, WOODSTOCK, Oxfordshire Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	**12**

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 119**

ID	Location	Land Use	Year of mapping	Mapping scale
B	**On site**	**Unspecified Pit**	**1922**	**1:10560**
B	**On site**	**Unspecified Pit**	**1914**	**1:10560**
B	**On site**	**Unspecified Pit**	**1914**	**1:10560**
B	**On site**	**Unspecified Pit**	**1950**	**1:10560**
C	**On site**	**Cuttings**	**1923**	**1:10560**
C	**On site**	**Cuttings**	**1880**	**1:10560**
C	**On site**	**Cuttings**	**1923**	**1:10560**

ID	Location	Land Use	Year of mapping	Mapping scale
C	**On site**	**Cuttings**	**1898**	**1:10560**
3	2m NE	Cuttings	1950	1:10560
4	3m NE	Cuttings	1968	1:10560
B	9m E	Unspecified Pit	1876	1:10560
8	206m S	Disused Sand Pit	1950	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	**8**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 119**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
1	**On site**	**Long Hanborough**	**Sand and gravel**	**Surface mineral working**	**Refused**	**9/7/52**
A	**On site**	**Purwell Farm**	**Sand and gravel**	**Surface mineral working**	**Valid**	**1954**
5	4m S	Purwell Farm	Sand and gravel	Surface mineral working	Valid	1951
D	22m S	Purwell Farm	Sand and gravel	Surface mineral working	Valid	1951
11	284m S	Purwell Farm	Sand and gravel	Surface mineral working	Valid	Not available

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
F	305m SW	City Farm	Sand and gravel	Surface mineral working	Refused	Not available
G	316m N	Southrah / Long Hanborough	Limestone	Surface mineral working	Valid	29/11/48
I	400m SW	City Farm	Sand and gravel	Surface mineral working	Valid	23/5/55

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

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).

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 Stantec UK Ltd.

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 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 Groundsure.

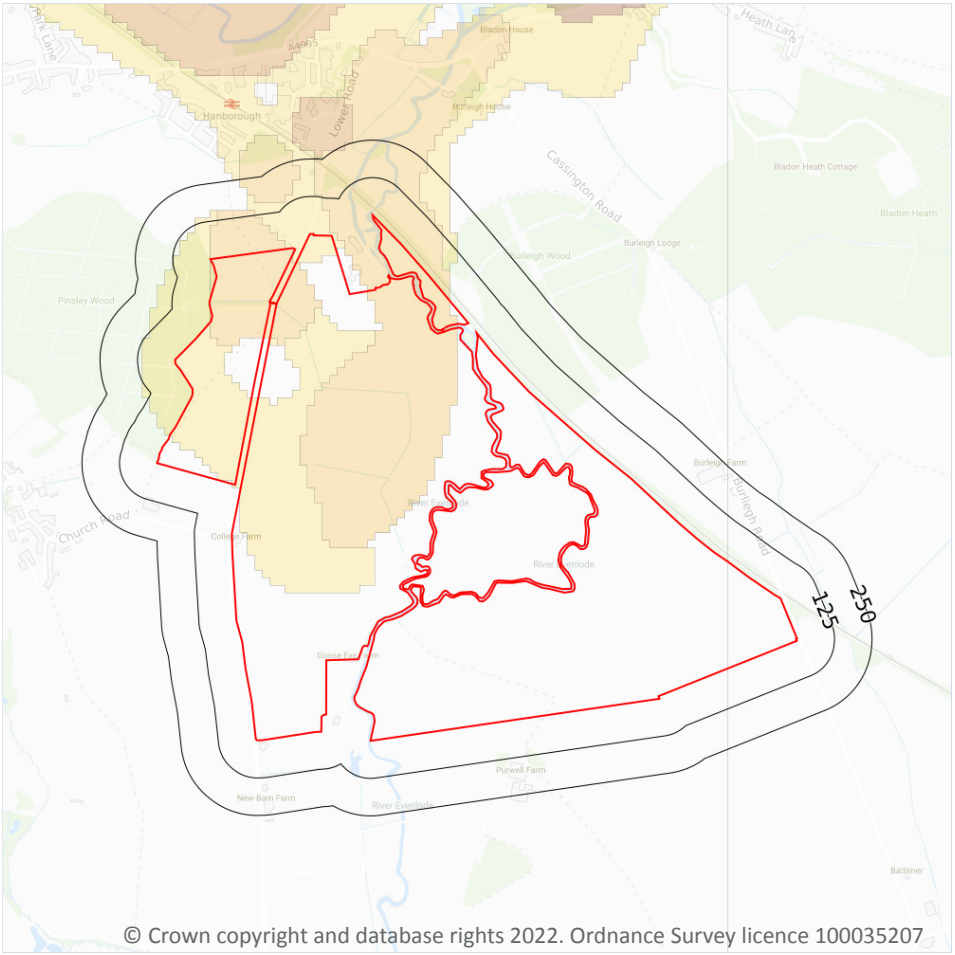
18.13 Clay mining

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



19.1 Radon

Records on site	3

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 126**

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

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 3% and 5%**	**Basic**

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	120

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	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

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	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
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On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
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On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

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	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
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On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
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On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
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On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
26m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
30m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
31m NW	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
33m N	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
40m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
40m NW	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
48m E	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 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.

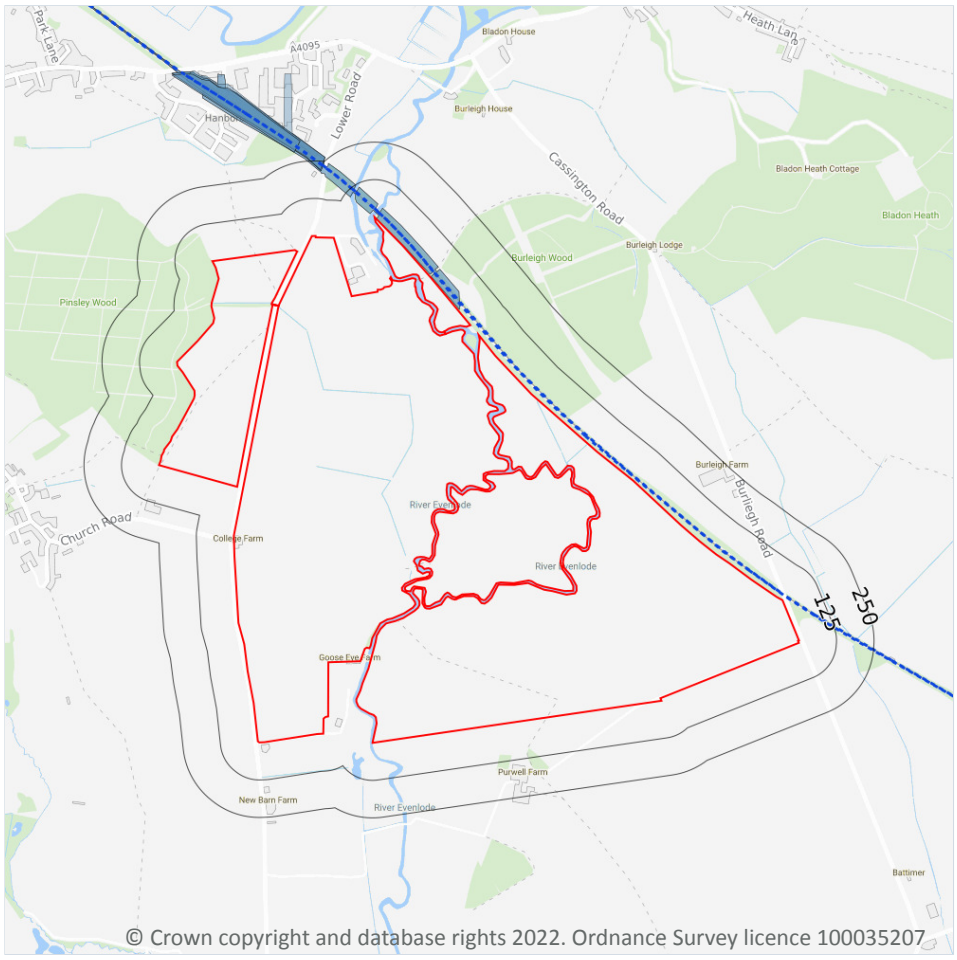
20.3 BGS Measured Urban Soil Chemistry

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



Site Outline

Search buffers in metres (m)

- Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

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	5

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

Features are displayed on the Railway infrastructure and projects map on **page 136**

Location	Land Use	Year of mapping	Mapping scale
1m NE	Railway	1899	-
1m NE	Railway	1876	-
218m N	Railway Sidings	1923	10560
218m N	Railway Sidings	1898	10560
222m N	Railway Sidings	1950	10560

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	16

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

Features are displayed on the Railway infrastructure and projects map on **page 136**

Location	Name	Type
12m NE	Cotswold Line	rail
13m NE	Not given	Single Track
14m NE	Not given	Single Track
14m NE	Cotswold Line	rail
14m NE	Cotswold Line	rail
16m NE	Cotswold Line	rail
18m NE	Not given	Single Track
20m NE	Cotswold Line	rail
20m NE	Cotswold Line	rail
21m NE	Cotswold Line	rail
30m N	Cotswold Line	rail
80m E	Not given	Single Track
104m NW	Cotswold Line	rail
121m NW	Cotswold Line	rail
222m NW	Cotswold Line	rail
237m N	Cotswold Line	rail

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 [redacted]

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Groundsure's Terms and Conditions can be accessed at this link: [redacted]