

# Phase I Contaminated Land Assessment

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LAND South of Cox Hill,  
Kersey Tye,  
IP7 6EU

Commissioned By  
C Abbott

15th March 2023  
Report Reference:  
OES23-001ABB

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## 1. INTRODUCTION

### 1.1. Background

Part IIA of the Environmental Protection Act 1990 (The Act) defines “contaminated land” as any land that appears to be in such a condition, by reason of substances in or under the land that significant harm is being caused or there is a significant possibility of significant harm being caused or pollution to controlled water is being or likely to be caused. The act defines The Act provides the regulatory framework for the identification and remediation of “contaminated Land”.

Planning Policy Statement 23: Planning and Pollution Control stated that Land that is potentially affected by contamination is a material consideration for planning purposes.

The National Planning Policy Framework (NPPF) replaced Planning Policy Statement 23 amongst other planning guidance in March 2012. The current version of the NPPF was revised in 2021.

Section 15 paragraphs 174 requires contaminated land to be considered and remediated or mitigated at the planning stage. Additionally the following 2 paragraphs deal directly with land contamination.

183. Planning policies and decisions should ensure that:

- a) a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);
- b) after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and
- c) adequate site investigation information, prepared by a competent person, is available to inform these assessments.

184. Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner.

A potential developer will need to satisfy the local authority that unacceptable risk from contamination will be successfully addressed through remediation without undue environmental impact during and following the development. The model Procedures for the Management of Contaminated Land (CLR-11) produced by the Environment Agency provides the framework for applying a risk management process for dealing with land affected by contamination.

The NHBC, Environment Agency and the Chartered Institute of Environmental Health (CIEH) produced the 'Guidance for the Safe Development of Housing on Land Affected by Contamination R&D66:2008' to enable good practice in the application of the model procedures by all relevant parties.

Where an assessment of land that is or may be affected by contaminated land is required the guidance comprises a staged approach starting with a Phase I Preliminary Risk Assessment, followed by Phase II Risk Estimation and Evaluation (Generic and Detailed Risk Assessment). Where the Phase I & 2 assessments determine the need for action Phase III involves Remediation, design and implementation with validation.

The assessment involves the identification of the Source – Pathway – Receptor and the identification of the relevant plausible pollution linkages. A conceptual model is created to identify the level of risk that a plausible relevant pollution linkage poses. Using the conceptual model, further investigation is planned and implemented to determine quantitative risk and where determined as necessary plan and implement remediation.

This risk assessment based on the current guidance described above, considers the land condition, proposed development, intermediate and end user of the site is considered appropriate for the assessment of this site.

## **1.2. Brief**

I have been instructed by the landowner to carry out a Phase I Contaminated Land Assessment of an existing site known as LAND South of Cox Hill, Kersey Tye, IP7 6EU (Now referred to as 'the site').

I understand that that the site owner is applying for permission to build a residential dwellings on the site and therefore introduces a more sensitive end user with this change of use. A proposed plan of the dwellings is included in APPENDIX 2.

The assessment comprises a desktop study and site walkover survey for the purpose of identifying potential sources of contamination on or in close proximity to the site and to determine if there is a pathway from the source to a sensitive receptor (relevant pollution linkage). The risk assessment will determine if further investigations are necessary to carry out generic and potentially detailed assessment of risk to human health or controlled waters.

This report is for the sole private and confidential use of the site owner for whom it was carried out for and for any appointed representatives such as. It should not be relied upon or reproduced in whole or part by any third party without the written permission. The author does not owe an unauthorised third party any duty of care or skill.

Limitations and conditions relating to the use of this report are detailed in APPENDIX 1 of this report.

### **1.3. Scope Of Work**

The scope of work for this phase I contaminated land assessment is to collect and consider sufficient information regarding the site history, Geo environmental information including ground conditions and information on the local environment to create a 'Conceptual Model' to evaluate plausible relevant pollution linkages.

Where appropriate the report will make recommendations on the need for intrusive investigation, chemical sampling and any other analysis that may be required to confirm the condition of the site and whether or not the site poses a significant possibility of significant harm to human health or controlled waters.

## 2. DESK STUDY

### 2.1. Information Sources

The desk study is informed from the following sources

- Groundsure Enviro + Geo Insight (APPENDIX 3)
- Groundsure Historical Maps 1886 – 2023 (APPENDIX 4)

### 2.2. Detailed Site Description

The site is approximately 0.18 ha in size located at grid reference 598598 242710

The site is located Off of Cox Hill at the end of a row of houses that are south of the road. Kersey Tye is diffuse rural village with properties widely distributed amongst the agricultural land between the town of Boxford and Hadleigh, within the Babergh District Council.

The site itself is part of a Field beyond the field to the West is a residential dwellings with appears to be an agricultural small holding and to the East at the end of the wider field is a residential property with land.

Agricultural fields are located to the North and East of the.

Beyond the immediate surroundings the area is largely agricultural fields mostly used for arable crop growing..

### 2.3. Geology

With reference to the Enviro + Geo Insight report the site is underlain with Lowestoft Formation Diamaction comprised of Sand and Gravel offering a Moderate to Very High permeability, over Thames Group - Clay, Silt & Sand.

- There are 0 records of Artificial (worked) or made ground within 250m of the site.
- There are no records of geological faults within 2500m of the site.
- The site is not within a Radon Affected or Radon Protected Area and no Radon protection measures are required for buildings or extensions on the site.
- There is 0 records of Brit Pits and 0 records of historic surface ground workings within 250m of the site.
- There are no records of Extraction, mining or Natural cavities within 250m of the site.
- There are 0 boreholes recorded within 250m of the site.

There are estimated ground chemistry records for the site including a 50m buffer zone. The results relate to rural soil on site and are shown in Table 1 below.

**Table 1. Basic Soil Chemistry Records**

Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
15mg/kg	1.8mg/kg	40-60 mg/kg	15-30mg/kg	100mg/kg

The above levels in table 1 are estimated background soil chemistry values and levels influenced by human activities such as industrial processes. The Levels for Cadmium, Chromium, Nickel and Lead are not at levels considered to pose a risk for land used for residential purposes (Based on Soil Guideline Values (SGV's from the Environment Agency and Generic Assessment Criteria produced by LQM/CIEH 3<sup>rd</sup> Edition). No further investigation of background soil chemistry is considered necessary for these parameters.

#### 2.4. Hydrogeology and Hydrology

The Groundsure Enviro+Geo Insight search show that the site is located over Secondary Undifferentiated In the superficial deposits, This is assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non aquifer in different locations due to the variable characteristics of the rock type.

The site is located over an Unproductive aquifer *'these are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow'*.

- There is 0 groundwater abstraction licenses within 250m of the site.
- There are no Surface Water Abstraction Licenses within 500m of the site.
- There are no Potable Water Abstraction Licenses within 500m of the site.
- The Environment Agency has designated one source protections zone within 500m of the site. The site falls within Type 3 Total catchment.
- The surface and river water features are listed in the Enviro+Geo insight report (APPENDIX 3).

#### 2.5. Environmental Search Data

The Groundsure Enviro + Geo Insight report attached in APPENDIX 3 has been reviewed to gain knowledge on publicly available environmental data on the site and the immediate vicinity around the site. The information includes public registers held by statutory agencies including the Local Authority and the Environment Agency.

### Past Land Uses

**There are no historical, industrial uses, tanks, energy features, petrol stations, garages or military uses listed as being onsite.**

- There are 0 records of **Historical Industrial land** uses within 250m of the site.
- There are 0 records of **historical tanks** within 250m of the site.
- There are 0 records of **historical energy features** within 250m of the site
- There are 0 records of **historical garages** within 250m of the site.

### Current Land Uses

**There are no records of current or recent industrial land uses, petrol stations, sites determined as contaminated land, storage of chemicals or controlled substances, licensed pollutant releases, historical licensed industrial activities or pollutions incidents , on the site.**

- There are 0 records of **recent industrial land uses** within 250m of the site. The phone mast is listed as on site.
- There is 0 Current or **recent petrol station** within 250m of the site.
- There are 0 **licensed pollutant release** within 250m of the site.
- There are 0 **licensed discharges to controlled waters** within 250 m from the site.
- There are 0 **list 2 dangerous substances** shown as being stored within 250m from the site..
- There are 0 **pollution incident** recorded by the Environment Agency within 250m of the site.

### Landfill and Other Waste Sites

**There are no records of active landfill's or waste sites within 250m of the site.**

- There are 0 record of a **historical landfill (EA/NRW records)** within 250m of the site.



- There are 0 records of waste exemptions within 250m from the site.

#### Designated Environmentally Sensitive Sites

##### **The site is not in an officially designated environmentally sensitive area**

- The site is within a **Nitrate Vulnerable Zone** as recorded by DEFRA
- The site is listed as being within a **SSSI Risk zone** - All Planning Applications - Except Householder Applications. Notes: For new residential development in this area financial contributions are required towards the emerging Suffolk Recreational Disturbance Avoidance & Mitigation Strategy (RAMS). Contact the Local Planning Authority for further advice.

## **2.6. Site History**

To determine whether there has been any previous land uses on the site that may be considered to be 'potentially contaminative' we have consulted historical and modern map extracts dating from 1885 to 2023. These maps are included in APPENDIX 4. Comments will generally be relating to the area within a 250m radius of the site as the impact with regards to potential contaminants on land further than 250m away are considered to be very low risk unless stated otherwise.

#### 1881 – 1882 County Series Map (1:2,500 & 10,560)

The site is shown as part of a larger land parcel numbered 247 North West of Williams green, which is a small collection of dwellings 250m away /likely to be

There is a small collection of buildings likely to be a dwelling with outbuildings within land parcel 249 b to the East/North East along Cox Hill. Beyond the buildings is a small wooded land parcel. 3 small holdings or residential land parcels are located 80 to 10m South East this is set within largely agricultural fields over the 1km Radius.

Small collections of buildings or dwellings are sited further afield at Kersey Upland 500m East, Wicker Street Green 750m South West and The main area of Kersey Tye 500m North West.

Hadleigh Hamlet is also located just over 750m South West

#### 1902 – 1903 County Series Map (10,560 & 1:2,500 )

What appears to be a pond is shown on the south east boundary in the corner of land parcel 251. Allotment gardens are shown south east end of land parcel 247.

There are no other apparent significant changes to the site, or the surrounding area shown on this map layer.

#### 1926 to 1927 County Series Map (10,560 & 1:2,500 )

There are no apparent significant changes to the site, or the surrounding area shown on this map layer.

However the pond referenced previously is now labelled well

1937 provisional (1:10,560)

There are no apparent significant changes to the site, or the surrounding area shown on this map layer.

1954 Provisional (1:10,560)

There are no apparent significant changes to the site, or the surrounding area shown on this map layer.

1973 & 1978 National Grid Map (1:2,500 & 1:10,000)

Directly North/North East of the site a residential dwelling called Charlwyn is now shown on previous land parcel 248/ The collection of buildings in the earliest map sets are now shown as 3 sperate dwellings Walnut Cottage, White Cottage and The Bungalow.

The well is now shown as pond and a very small pond is outside the the north western corner of the site., the allotment gardens are no longer shown

The wider area also shows some minor development scattered around but this is very small scale and largely residential.

1994 National Grid Map (1:2,500)

There are no apparent significant changes to the site, or the surrounding area shown on this map layer.

2001 National Grid Map (1:10,000)

There are no identifiable significant changes to the site or the surrounding area shown on this map layer.

2003 Landline (1:1,250)

The south eastern half of the land formerly an allotment garden is now shown as Quiet Waters, a large residential dwellings.

There are no other identifiable significant changes to the site or the surrounding area shown on this map layer.

2010 National Grid Map (1:10,000)

There are no identifiable significant changes to the site or the surrounding area shown on this map layer.

2023 National Grid Map (1:10,000)

There are no identifiable significant changes to the site or the surrounding area shown on this map layer.

### 3. SITE WALKOVER INSPECTION

A site walkover inspection was carried out on the 15<sup>th</sup> March 2023.

The site is currently part of a larger arable field with some early vegetation growth at the time of the visit. There are no visible signs of potential contamination or activities of illegal dumping of substances or materials that would be contaminative or otherwise.

Bordering ditches and water courses showed no signs of water being contaminated.

The surrounding area is largely used for arable farming with small holdings, dwellings and farmyards dotted around the local road network.

The buildings along Cox Hill to the East of the site are residential dwellings with generous amenity land and some large outbuildings, some of these dwellings have been significantly modernised in recent times.

No potential sources of contamination or activities that present plausible pollution linkages were noted on or near to the site during the walkover survey.

#### Photo 1 – Land from roadside



## 4. CONCEPTUAL MODEL

### 4.1. Introduction

A 'Conceptual Model' is used to assess the potential level of risk to human receptors and controlled waters. It represents the relationship between contaminant sources, pathways and receptors to identify and assess plausible relevant pollutant linkages.

The model is central to the risk assessment process and although formulated during the initial phase of any contaminated land assessment or investigation it is subject to change as information is discovered and the understanding of the site takes shape.

There are four considerations to the conceptual model which form the basis to determine the level of risk.

Source of contamination refers to any identified substance resulting from current or historic uses of the land or the surrounding area or an incident which may have a negative impact on surface or sub-surface soils or the groundwater

Pathway refers to the method by which an identified potential contaminant can migrate between the source and an identified receptor.

Receptor refers to human, flora, fauna, groundwater, surface water, building or structure

Pollutant Linkage refers to where there is plausible pathway to 'link' an identified source to a receptor.

### 4.2. Sources(s) of Contamination

A review of available information gathered from the search data, historical maps, local knowledge and the site walkover inspection of the site identifies that historical and current use of the site are not likely to have caused potential contamination of the site. The site has never been built on and is undisturbed land.

There are **no identified sources of potential contamination** on the site or near enough to the site to pose a plausible risk of pollution linkages being present.

### 4.3. Receptors

Potential receptors for the site have been identified on the basis of the identification of potential on-site sources of contamination

- Future occupants – People living in the new dwellings could be affected by exposure to the potential sources of contamination within the soil.
- Construction workers –Excavating footings, laying services below ground may be exposed to contaminants if they are present within soil on site.

**4.4. Potential Pathways**

The potential pathways for the potential sources of contamination identified are;

- Construction workers may be exposed to contaminants by dermal contact/absorption (through skin or open wounds, ingestion or inhalation of dust or soils during excavation works on onsite.
- Future occupants may be exposed to contaminants Dermal absorption, Inhalation or ingestion of soils/dust
- Future Occupants may grow their own fruit or vegetables in their gardens posing a risk of plant uptake of contaminants.

**4.5. Plausible Relevant Pollutant Linkages**

The relevant pollutant linkages are identified via the conceptual model in Table 2. The level of risk is informed by information in the desk study and observations during the site walkover inspection.

**Table 2: Conceptual Model**

Source(s)	Pathway	Receptor	Risk
None	<ul style="list-style-type: none"> <li>▪ Ingestion of soil/dust</li> <li>▪ Inhalation</li> <li>▪ Dermal Contact</li> </ul>	Construction Workers	Nil
	<ul style="list-style-type: none"> <li>▪ Ingestion of soil/dust</li> <li>▪ Inhalation</li> <li>▪ Dermal Contact</li> </ul>	Future occupants	Nil
	<ul style="list-style-type: none"> <li>▪ Ingress into water supply pipes</li> <li>▪ Ingestion</li> </ul>	Underground Services Future Occupants	Nil

**5. CONCLUSIONS**

There is no evidence from the desk study and site walkover to suggest that previous activities on the site have created a source of contamination. Additionally, there is no evidence of a pollution incident on the site, or off site that may have posed a risk to the site either from the historic data.

The site walkover survey was carried out and visual inspection of the land showed no signs of potential contamination not otherwise identified in the desk top searches could be seen

I do not consider that further investigation into the potential existence of historic contaminants is necessary.

Therefore the risk is considered Nil and it is not considered likely that significant potential of significant harm exists.

Potential contamination should not therefore be considered as a material concern for refusing the planning application for the development of residential dwellings.

Therefore following development, the site is not likely to be determined as contaminated land under Part IIA of the Environmental Protection Act 1990 as required by the NPPF.

## 6. RECOMMENDATIONS

The conclusions of the Phase I contaminated land assessment based on the known data at the time of writing this report identify that there is unlikely to be a plausible pollution linkage that would make the site unsuitable for a change of use to residential dwellings.

- It is recommended that during the site clearance and ground works of any future development, care should be taken to watch for the presence of any contaminants that have not been previously identified and if any suspected contaminants are discovered further guidance should be sought from an Environmental Consultant before works in those areas continue.

This report should be submitted to the Local Planning Authority as part of any planning application for Outline planning permission for residential dwellings.

Prepared By

*Shirley Hall*

**Shirley Hall**

15<sup>th</sup> March 2023

## **APPENDIX 1** – Report Limitations and Conditions

Information was obtained, reviewed and evaluated in preparing this Report from Groundsure Ltd and other named third parties. Our conclusions, opinions and recommendations are based upon this information and the information obtained during the Site walkover. The Consultant preparing this report does not warrant the accuracy of the information provided and will not be responsible for any opinions expressed, or conclusions reached in reliance upon information which is subsequently proven to be inaccurate. No independent validation of such information has been made by The author.

The conclusion and recommendations contained in this Report represent the author's professional opinions. These opinions were given in accordance with currently accepted Government and Industry Guidance in England and Wales at the time of the investigation and publication, as such this report and the opinions within are not a guarantee that this site is free of contamination, hazardous or potentially hazardous materials or conditions. There can be no warranty against the possibility of future changes to the condition of the site, either above or below ground.

The report and the recommendations contained within is limited to the aspects of land contamination specifically reported on and is necessarily qualified accordingly, no liability shall be accepted by the author for other unidentified and unforeseen aspects which may be the result of gradual or sudden pollution incidents, past or present unrecorded land uses both on- and off-site and the potential for associated contaminant migration. The opinions expressed cannot be absolute due to the limitations of the investigation as stated in the report as well as time and resources imposed by the agreed brief.

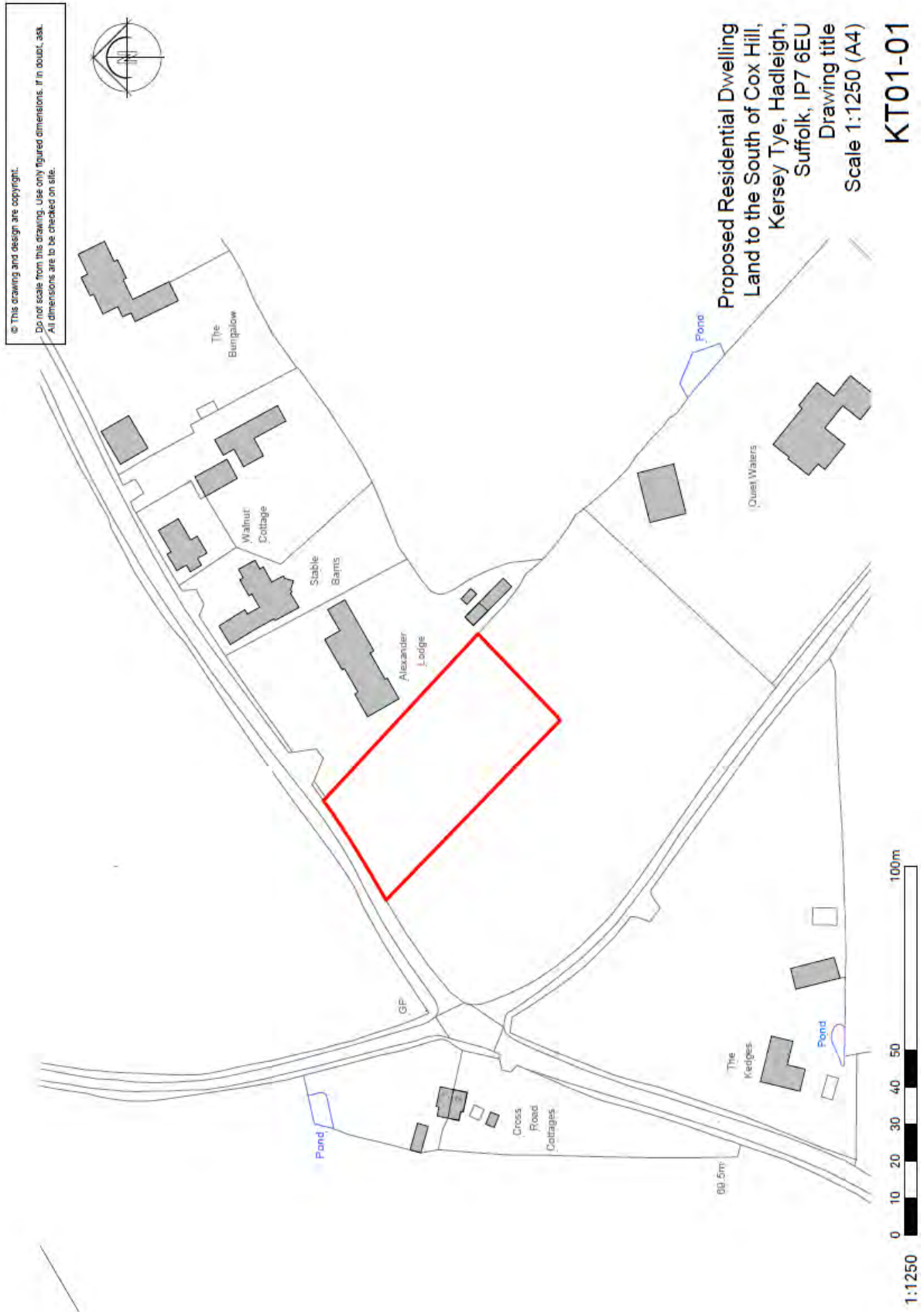
The conclusions and any recommendations made in this Report are limited to those that can be made on the basis of the investigation carried out as described in the report. The results of this report should be viewed in the context of the range of data sources consulted, the number of locations where the ground was sampled and the number of soil, gas or groundwater samples tested; no liability can be accepted for information in other data sources or conditions not revealed by the information sources, sampling or testing.

This Report was prepared for the sole and exclusive use of the Land Owner and Appointed agents and for the specific purpose instructed as defined in Section 1 of this report. Use of the Report by any other person is unauthorised and such use is at the risk of the site owner.

This report is written for the purpose stated within; it should not be used for any other purposes without consultation with the author. The professional opinion given in this report has been prepared in relation to the proposed end-use. Should another end-use be intended at any time, re-assessment may be required. It is important to note that that over time practises will improve and the relevant guidance and legislation will be amended or superseded, which may necessitate a re-assessment of the site.



**APPENDIX 2 - Site Plan**





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**APPENDIX 3 - Groundsure Enviro+GeoInsight Report**

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Land to The south of Cox hill, KERSEY TYE, IP7 6EU

## Order Details

**Date:** 10/03/2023  
**Your ref:** oes23-001ABB  
**Our Ref:** HMD-9414143

## Site Details

**Location:** 598598 242710  
**Area:** 0.18 ha  
**Authority:** [Babergh District Council](#)



**Summary of findings**

p. 2

**Aerial image**

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**OS MasterMap site plan**

p.13

[groundsure.com/insightuserguide](https://groundsure.com/insightuserguide)

## Summary of findings

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



22	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
22	4.7	Regulated explosive sites	0	0	0	0	-
23	4.8	Hazardous substance storage/usage	0	0	0	0	-
23	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
23	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
23	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
23	4.12	Radioactive Substance Authorisations	0	0	0	0	-
<b>24</b>	<b>4.13</b>	<b><u>Licensed Discharges to controlled waters</u></b>	0	0	2	0	-
24	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
24	4.15	Pollutant release to public sewer	0	0	0	0	-
25	4.16	List 1 Dangerous Substances	0	0	0	0	-
25	4.17	List 2 Dangerous Substances	0	0	0	0	-
25	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
25	4.19	Pollution inventory substances	0	0	0	0	-
25	4.20	Pollution inventory waste transfers	0	0	0	0	-
26	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
<b>27</b>	<b>5.1</b>	<b><u>Superficial aquifer</u></b>	Identified (within 500m)				
<b>28</b>	<b>5.2</b>	<b><u>Bedrock aquifer</u></b>	Identified (within 500m)				
<b>29</b>	<b>5.3</b>	<b><u>Groundwater vulnerability</u></b>	Identified (within 50m)				
30	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
30	5.5	Groundwater vulnerability- local information	None (within 0m)				
<b>31</b>	<b>5.6</b>	<b><u>Groundwater abstractions</u></b>	0	0	0	0	5
33	5.7	Surface water abstractions	0	0	0	0	0
33	5.8	Potable abstractions	0	0	0	0	0
<b>33</b>	<b>5.9</b>	<b><u>Source Protection Zones</u></b>	1	0	0	0	-
33	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
34	6.1	Water Network (OS MasterMap)	0	0	0	-	-



34	6.2	Surface water features	0	0	0	-	-
<b>35</b>	<b>6.3</b>	<b><u>WFD Surface water body catchments</u></b>	1	-	-	-	-
<b>35</b>	<b>6.4</b>	<b><u>WFD Surface water bodies</u></b>	0	0	0	-	-
<b>35</b>	<b>6.5</b>	<b><u>WFD Groundwater bodies</u></b>	1	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
37	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
37	7.2	Historical Flood Events	0	0	0	-	-
37	7.3	Flood Defences	0	0	0	-	-
38	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
38	7.5	Flood Storage Areas	0	0	0	-	-
39	7.6	Flood Zone 2	None (within 50m)				
39	7.7	Flood Zone 3	None (within 50m)				

Page	Section	Surface water flooding					
<b>40</b>	<b>8.1</b>	<b><u>Surface water flooding</u></b>	1 in 250 year, 0.1m - 0.3m (within 50m)				

Page	Section	Groundwater flooding					
<b>42</b>	<b>9.1</b>	<b><u>Groundwater flooding</u></b>	Low (within 50m)				

Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
<b>43</b>	<b>10.1</b>	<b><u>Sites of Special Scientific Interest (SSSI)</u></b>	0	0	0	0	1
44	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
44	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
44	10.4	Special Protection Areas (SPA)	0	0	0	0	0
44	10.5	National Nature Reserves (NNR)	0	0	0	0	0
45	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
<b>45</b>	<b>10.7</b>	<b><u>Designated Ancient Woodland</u></b>	0	0	0	0	6
45	10.8	Biosphere Reserves	0	0	0	0	0
46	10.9	Forest Parks	0	0	0	0	0
46	10.10	Marine Conservation Zones	0	0	0	0	0
46	10.11	Green Belt	0	0	0	0	0
46	10.12	Proposed Ramsar sites	0	0	0	0	0



46	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
47	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
47	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<b>47</b>	<b>10.16</b>	<b><u>Nitrate Vulnerable Zones</u></b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>48</b>	<b>10.17</b>	<b><u>SSSI Impact Risk Zones</u></b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>49</b>	<b>10.18</b>	<b><u>SSSI Units</u></b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
50	11.1	World Heritage Sites	0	0	0	-	-
50	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
50	11.3	National Parks	0	0	0	-	-
50	11.4	Listed Buildings	0	0	0	-	-
51	11.5	Conservation Areas	0	0	0	-	-
51	11.6	Scheduled Ancient Monuments	0	0	0	-	-
51	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
<b>52</b>	<b>12.1</b>	<b><u>Agricultural Land Classification</u></b>	<b>Grade 2 (within 250m)</b>				
53	12.2	Open Access Land	0	0	0	-	-
53	12.3	Tree Felling Licences	0	0	0	-	-
<b>53</b>	<b>12.4</b>	<b><u>Environmental Stewardship Schemes</u></b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>-</b>	<b>-</b>
54	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
<b>55</b>	<b>13.1</b>	<b><u>Priority Habitat Inventory</u></b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>-</b>	<b>-</b>
56	13.2	Habitat Networks	0	0	0	-	-
56	13.3	Open Mosaic Habitat	0	0	0	-	-
56	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
<b>57</b>	<b>14.1</b>	<b><u>10k Availability</u></b>	<b>Identified (within 500m)</b>				
58	14.2	Artificial and made ground (10k)	0	0	0	0	-
59	14.3	Superficial geology (10k)	0	0	0	0	-



59	14.4	Landslip (10k)	0	0	0	0	-
60	14.5	Bedrock geology (10k)	0	0	0	0	-
60	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
<b>61</b>	<b>15.1</b>	<b><u>50k Availability</u></b>	Identified (within 500m)				
62	15.2	Artificial and made ground (50k)	0	0	0	0	-
62	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<b>63</b>	<b>15.4</b>	<b><u>Superficial geology (50k)</u></b>	1	0	0	1	-
<b>64</b>	<b>15.5</b>	<b><u>Superficial permeability (50k)</u></b>	Identified (within 50m)				
64	15.6	Landslip (50k)	0	0	0	0	-
64	15.7	Landslip permeability (50k)	None (within 50m)				
<b>65</b>	<b>15.8</b>	<b><u>Bedrock geology (50k)</u></b>	1	0	1	1	-
<b>66</b>	<b>15.9</b>	<b><u>Bedrock permeability (50k)</u></b>	Identified (within 50m)				
66	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
67	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
<b>68</b>	<b>17.1</b>	<b><u>Shrink swell clays</u></b>	Low (within 50m)				
<b>69</b>	<b>17.2</b>	<b><u>Running sands</u></b>	Very low (within 50m)				
<b>70</b>	<b>17.3</b>	<b><u>Compressible deposits</u></b>	Negligible (within 50m)				
<b>71</b>	<b>17.4</b>	<b><u>Collapsible deposits</u></b>	Very low (within 50m)				
<b>72</b>	<b>17.5</b>	<b><u>Landslides</u></b>	Very low (within 50m)				
<b>73</b>	<b>17.6</b>	<b><u>Ground dissolution of soluble rocks</u></b>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
74	18.1	Natural cavities	0	0	0	0	-
74	18.2	BritPits	0	0	0	0	-
74	18.3	Surface ground workings	0	0	0	-	-
74	18.4	Underground workings	0	0	0	0	0
75	18.5	Historical Mineral Planning Areas	0	0	0	0	-



75	18.6	Non-coal mining	0	0	0	0	0
75	18.7	Mining cavities	0	0	0	0	0
75	18.8	JPB mining areas	None (within 0m)				
75	18.9	Coal mining	None (within 0m)				
76	18.10	Brine areas	None (within 0m)				
76	18.11	Gypsum areas	None (within 0m)				
76	18.12	Tin mining	None (within 0m)				
76	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<b>77</b>	<b>19.1</b>	<b>Radon</b>	<b>Less than 1% (within 0m)</b>				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<b>79</b>	<b>20.1</b>	<b>BGS Estimated Background Soil Chemistry</b>	1	0	-	-	-
79	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
79	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
80	21.1	Underground railways (London)	0	0	0	-	-
80	21.2	Underground railways (Non-London)	0	0	0	-	-
80	21.3	Railway tunnels	0	0	0	-	-
80	21.4	Historical railway and tunnel features	0	0	0	-	-
80	21.5	Royal Mail tunnels	0	0	0	-	-
81	21.6	Historical railways	0	0	0	-	-
81	21.7	Railways	0	0	0	-	-
81	21.8	Crossrail 1	0	0	0	0	-
81	21.9	Crossrail 2	0	0	0	0	-
81	21.10	HS2	0	0	0	0	-



## Recent aerial photograph



Capture Date: 05/04/2020

Site Area: 0.18ha



## Recent site history - 2017 aerial photograph



Capture Date: 09/04/2017

Site Area: 0.18ha





## Recent site history - 2014 aerial photograph



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

Capture Date: 05/05/2014

Site Area: 0.18ha



## Recent site history - 2007 aerial photograph



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

Capture Date: 14/03/2007

Site Area: 0.18ha





## Recent site history - 1999 aerial photograph



Capture Date: 05/05/1999

Site Area: 0.18ha



## OS MasterMap site plan



Site Area: 0.18ha




# 1 Past land use



**— Site Outline**

Search buffers in metres (m)

 **Historical industrial land uses**

## 1.1 Historical industrial land uses

**Records within 500m**

**3**

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

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

ID	Location	Land use	Dates present	Group ID
A	407m SE	Disused Windmill	1902	2043389

ID	Location	Land use	Dates present	Group ID
A	407m SE	Corn Windmill	1885	2050210
A	408m SE	Unspecified Commercial/Industrial	1938	2058385

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.2 Historical tanks

**Records within 500m** **0**

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.3 Historical energy features

**Records within 500m** **0**

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.4 Historical petrol stations

**Records within 500m** **0**

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

*This data is sourced from Ordnance Survey / Groundsure.*



## 1.5 Historical garages

Records within 500m

0

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.6 Historical military land

Records within 500m

0

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

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



## 2 Past land use - un-grouped



— Site Outline

Search buffers in metres (m)

Historical industrial land uses

### 2.1 Historical industrial land uses

Records within 500m

3

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 17**

ID	Location	Land Use	Date	Group ID
A	407m SE	Disused Windmill	1902	2043389
A	407m SE	Corn Windmill	1885	2050210
A	408m SE	Unspecified Commercial/Industrial	1938	2058385

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.2 Historical tanks

**Records within 500m**

**0**

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'.

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.3 Historical energy features

**Records within 500m**

**0**

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.4 Historical petrol stations

**Records within 500m**

**0**

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.5 Historical garages

**Records within 500m**

**0**

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

*This data is sourced from Ordnance Survey / Groundsure.*



## 3 Waste and landfill

### 3.1 Active or recent landfill

Records within 500m 0

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

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

### 3.2 Historical landfill (BGS records)

Records within 500m 0

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

*This data is sourced from the British Geological Survey.*

### 3.3 Historical landfill (LA/mapping records)

Records within 500m 0

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

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

### 3.4 Historical landfill (EA/NRW records)

Records within 500m 0

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

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

### 3.5 Historical waste sites

Records within 500m 0

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

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



### 3.6 Licensed waste sites

Records within 500m

0

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

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

### 3.7 Waste exemptions

Records within 500m

0

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

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

## 4 Current industrial land use



**— Site Outline**

Search buffers in metres (m)

● Licensed Discharges to controlled waters

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### 4.1 Recent industrial land uses

<b>Records within 250m</b>	<b>0</b>
----------------------------	----------

Current potentially contaminative industrial sites.

*This data is sourced from Ordnance Survey.*

### 4.2 Current or recent petrol stations

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

2

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on **page 21**

ID	Location	Address	Details	
A	200m SE	VINE COTTAGE, KERSEY UPLAND, HADLEIGH, SUFFOLK, IP7 6ES	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PRENF04281 Permit Version: 1 Receiving Water: Trib River Brett	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 18/06/1991 Effective Date: 18/06/1991 Revocation Date: 31/03/1992
A	200m SE	VINE COTTAGE, KERSEY UPLAND, HADLEIGH, SUFFOLK, IP7 6ES	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: PR2NF551 Permit Version: 1 Receiving Water: Unknown Trib. River Brett	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 26/06/1987 Effective Date: 26/06/1987 Revocation Date: 25/08/1992

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

### 4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

### 4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

#### 4.16 List 1 Dangerous Substances

Records within 500m

0

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

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

#### 4.17 List 2 Dangerous Substances

Records within 500m

0

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

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

#### 4.18 Pollution Incidents (EA/NRW)

Records within 500m

0

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

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

#### 4.19 Pollution inventory substances

Records within 500m

0

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

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

#### 4.20 Pollution inventory waste transfers

Records within 500m

0

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

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



## 4.21 Pollution inventory radioactive waste

Records within 500m

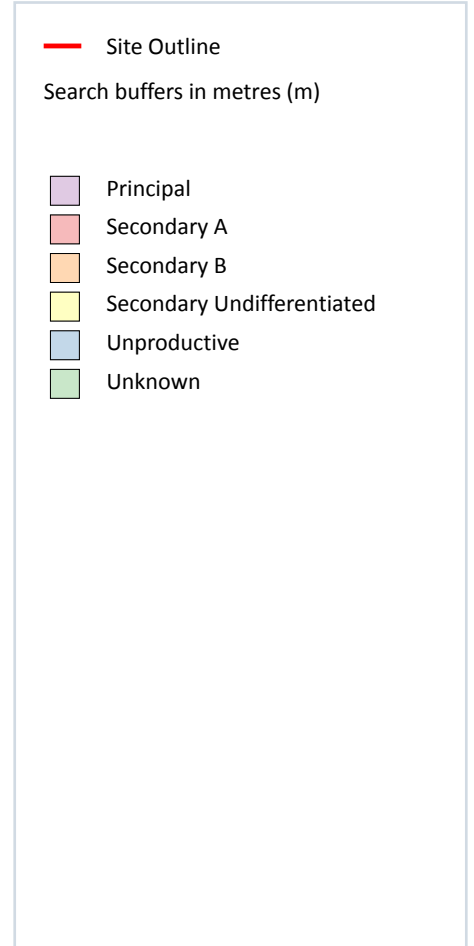
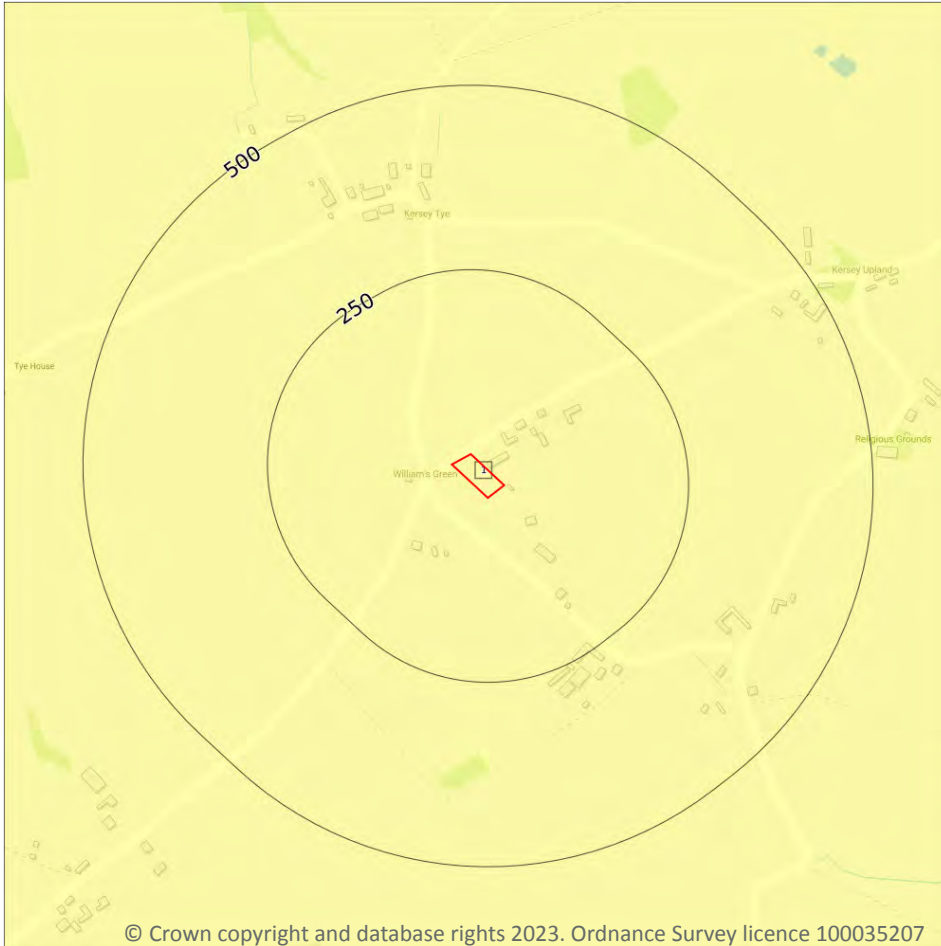
0

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

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



## 5 Hydrogeology - Superficial aquifer



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### 5.1 Superficial aquifer

Records within 500m

1

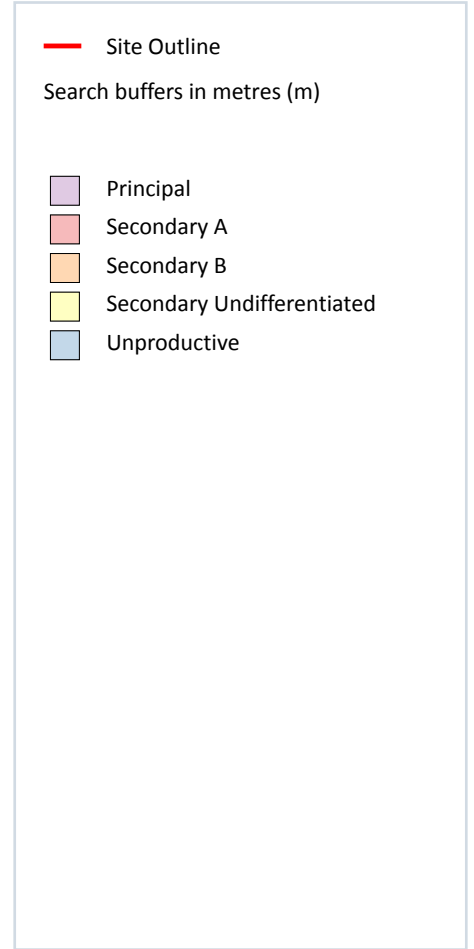
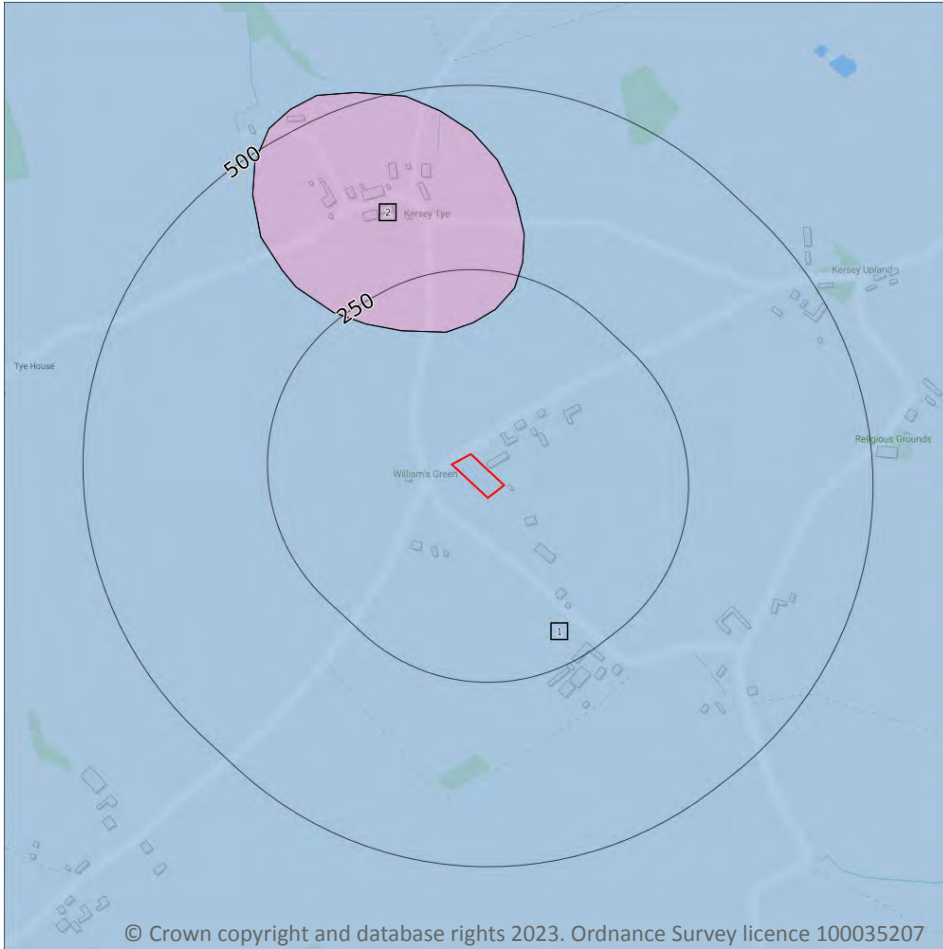
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 27**

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

*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

2

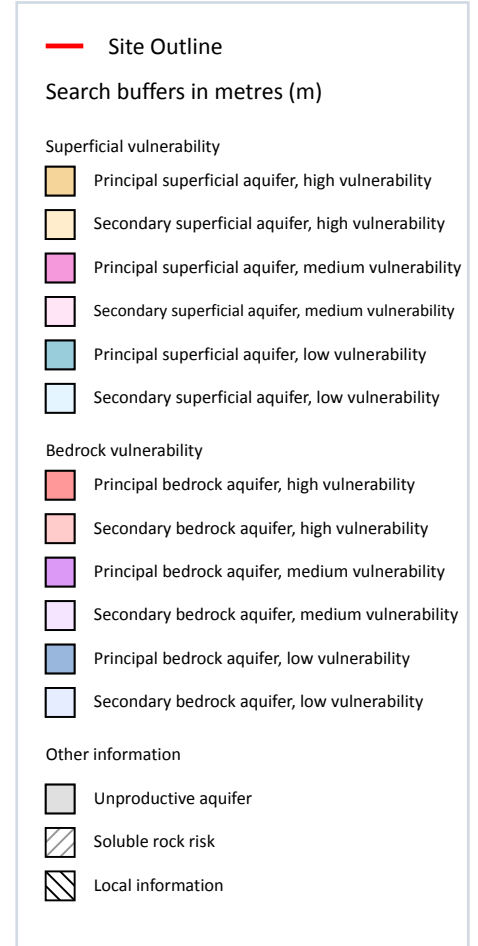
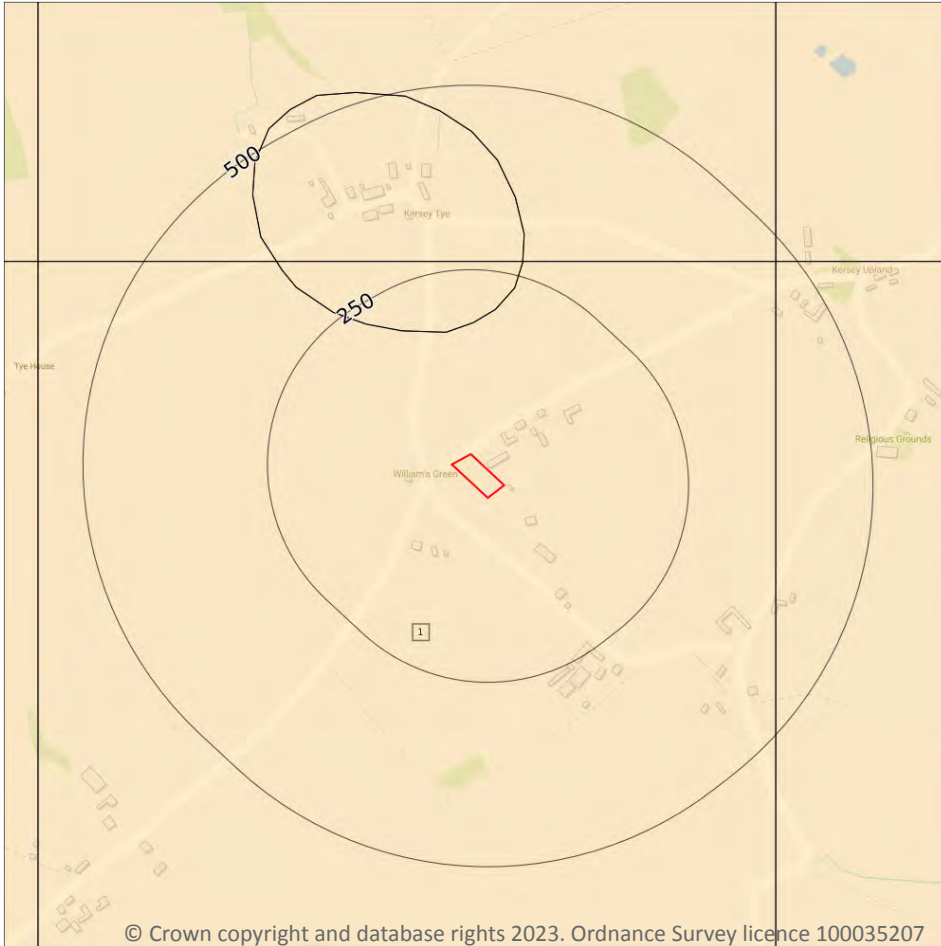
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 28**

ID	Location	Designation	Description
1	On site	Unproductive	<b>These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow</b>
2	169m N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

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

## Groundwater vulnerability



### 5.3 Groundwater vulnerability

Records within 50m

1

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

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

Features are displayed on the Groundwater vulnerability map on **page 29**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	<b>Summary Classification:</b> Secondary superficial aquifer - High Vulnerability <b>Combined classification:</b> Unproductive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Intermediate <b>Infiltration value:</b> >70% <b>Dilution value:</b> <300mm/year	<b>Vulnerability: High</b> <b>Aquifer type: Secondary</b> <b>Thickness: &gt;10m</b> <b>Patchiness value: &gt;90%</b> <b>Recharge potential: Low</b>	<b>Vulnerability: Unproductive</b> <b>Aquifer type: Unproductive</b> <b>Flow mechanism: Well connected fractures</b>

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

## 5.4 Groundwater vulnerability- soluble rock risk

<b>Records on site</b>	<b>0</b>
------------------------	----------

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

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

## 5.5 Groundwater vulnerability- local information

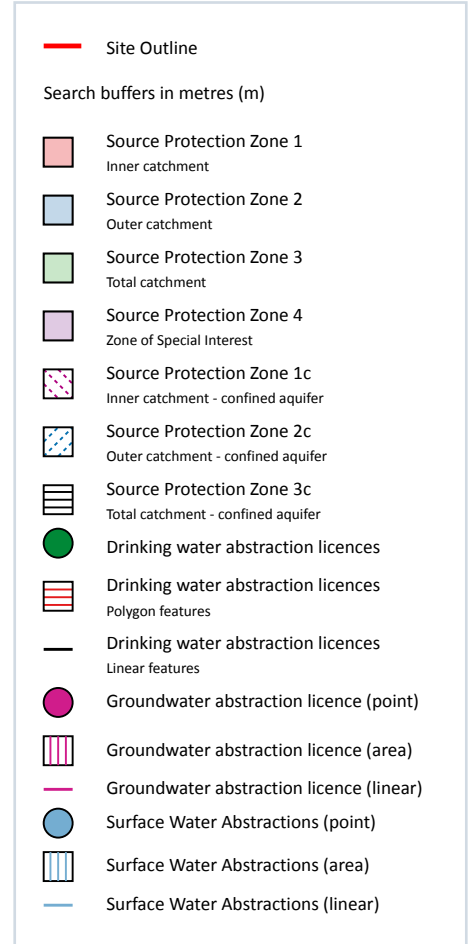
<b>Records on site</b>	<b>0</b>
------------------------	----------

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](mailto:enquiries@environment-agency.gov.uk).

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



## Abstractions and Source Protection Zones



### 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 31**



ID	Location	Details	
-	831m S	Status: Historical Licence No: 8/36/17/*G/0060 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: JUSTICE WOOD FARM, POLSTEAD Data Type: Point Name: RICE BROS Easting: 598900 Northing: 241900	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 01/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1966 Version End Date: -
-	1399m W	Status: Historical Licence No: 8/36/16/*G/0031 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: GOSLING GREEN, GROTON, BOXFORD Data Type: Point Name: RIDDLESTON Easting: 597200 Northing: 242400	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 01/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1966 Version End Date: -
-	1908m W	Status: Historical Licence No: 8/36/16/*G/0019 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: GROTON PLACE, BOXFORD. Data Type: Point Name: ELLIOTT & SONS Easting: 596700 Northing: 242300	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 01/04/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1966 Version End Date: -
-	1931m NW	Status: Active Licence No: 8/36/17/*G/0002 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: LINDSEY LODGE FARM HADLEIGH Data Type: Point Name: STURGEON Easting: 597600 Northing: 244400	Annual Volume (m <sup>3</sup> ): 21,600 Max Daily Volume (m <sup>3</sup> ): 131 Original Application No: - Original Start Date: 01/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/08/1986 Version End Date: -
-	1979m S	Status: Historical Licence No: 8/36/16/*G/0017 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: THE BOWER CLOSE, NR. POLSTEAD. Data Type: Point Name: FIELD REID Easting: 598600 Northing: 240700	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 01/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1966 Version End Date: -

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



## 5.7 Surface water abstractions

**Records within 2000m** **0**

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

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

## 5.8 Potable abstractions

**Records within 2000m** **0**

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

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

## 5.9 Source Protection Zones

**Records within 500m** **1**

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 31**

ID	Location	Type	Description
1	On site	3	Total catchment

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

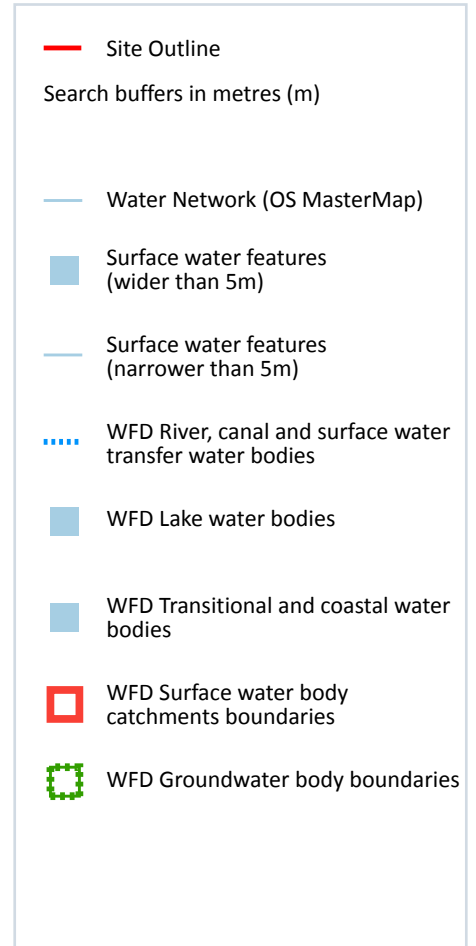
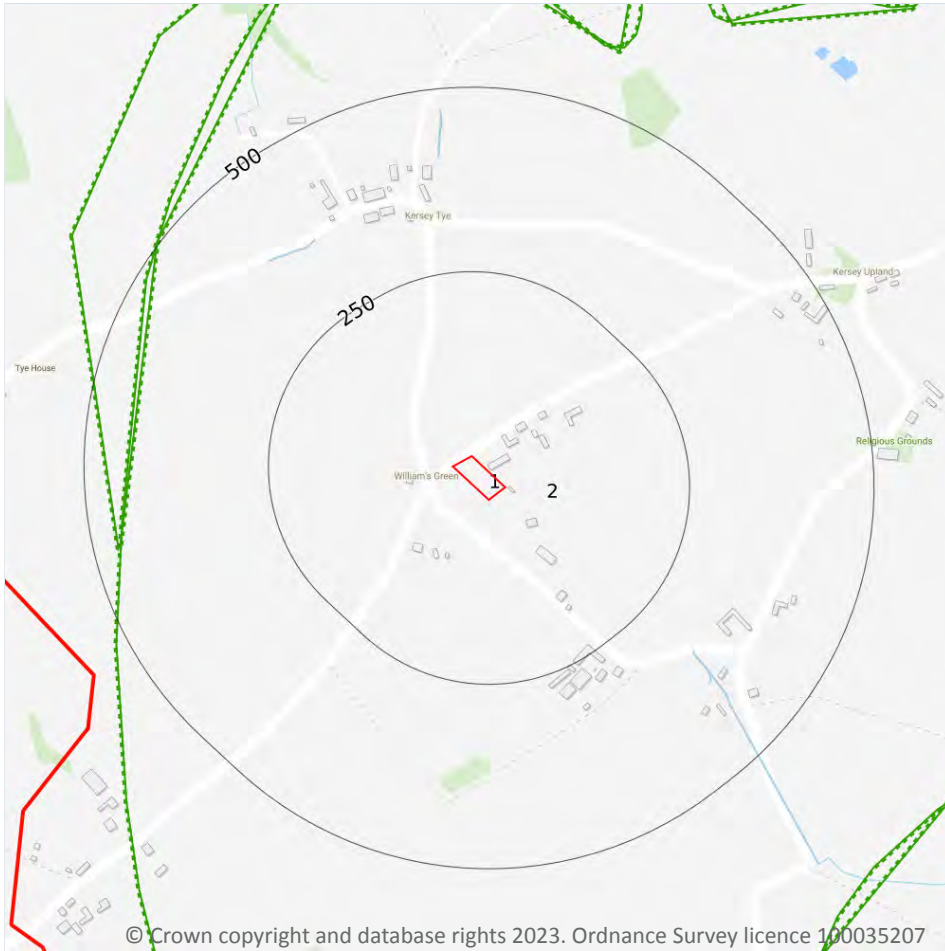
## 5.10 Source Protection Zones (confined aquifer)

**Records within 500m** **0**

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

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

## 6 Hydrology



### 6.1 Water Network (OS MasterMap)

Records within 250m

0

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

*This data is sourced from the Ordnance Survey.*

### 6.2 Surface water features

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

### 6.3 WFD Surface water body catchments

<b>Records on site</b>	<b>1</b>
------------------------	----------

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 34**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Brett	GB105036040930	Stour OC	Essex Combined

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

### 6.4 WFD Surface water bodies

<b>Records identified</b>	<b>1</b>
---------------------------	----------

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 34**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2997m NE	River	Brett	<a href="#">GB105036040930</a>	Moderate	Fail	Moderate	2019

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

### 6.5 WFD Groundwater bodies

<b>Records on site</b>	<b>1</b>
------------------------	----------

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 34**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Essex Gravels	<u>GB40503G000400</u>	Poor	Poor	Good	2019

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

## 7 River and coastal flooding

### 7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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

### 7.2 Historical Flood Events

Records within 250m

0

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

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

### 7.3 Flood Defences

Records within 250m

0

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

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





## 7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

## 7.5 Flood Storage Areas

Records within 250m

0

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

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

## River and coastal flooding - Flood Zones

### 7.6 Flood Zone 2

Records within 50m

0

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

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

### 7.7 Flood Zone 3

Records within 50m

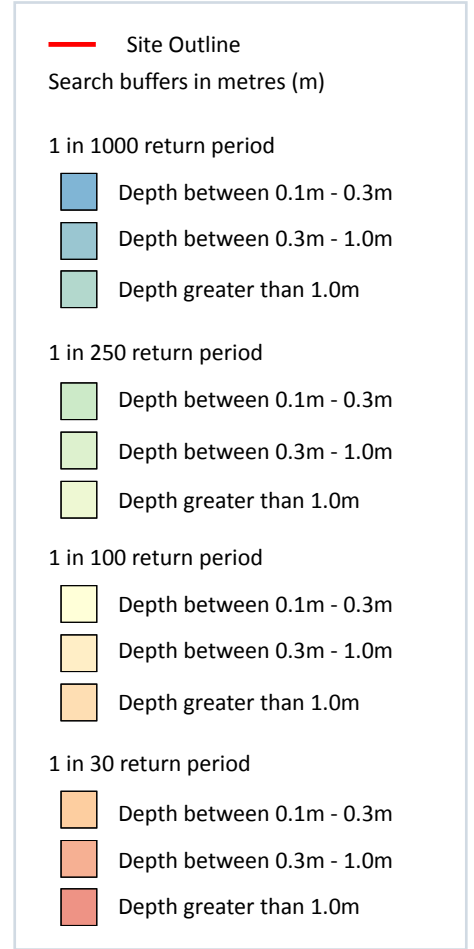
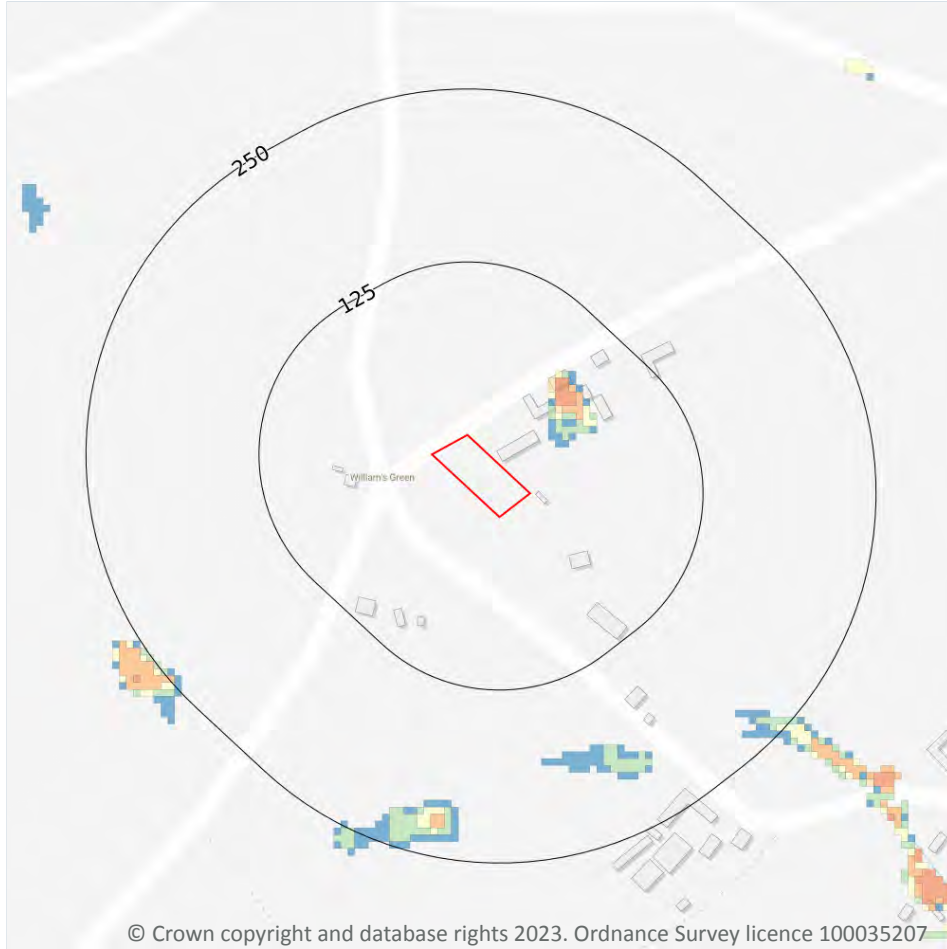
0

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

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



## 8 Surface water flooding



### 8.1 Surface water flooding

**Highest risk on site**

**Negligible**

**Highest risk within 50m**

**1 in 250 year, 0.1m - 0.3m**

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 40**

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

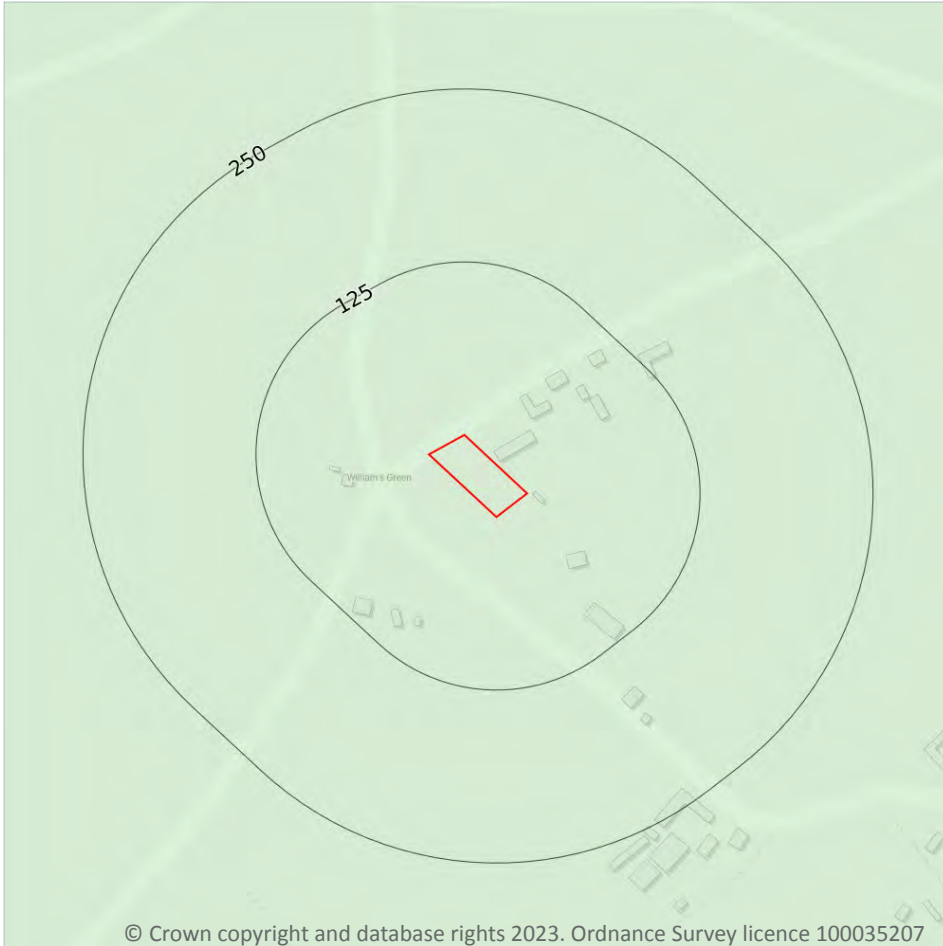
The table below shows the maximum flood depths for a range of return periods for the site.

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

*This data is sourced from Ambiental Risk Analytics.*



## 9 Groundwater flooding



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### 9.1 Groundwater flooding

**Highest risk on site**

**Low**

**Highest risk within 50m**

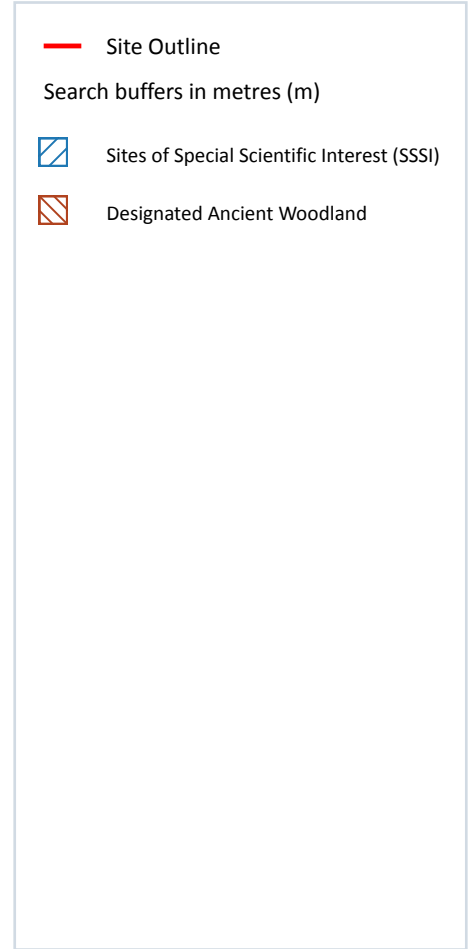
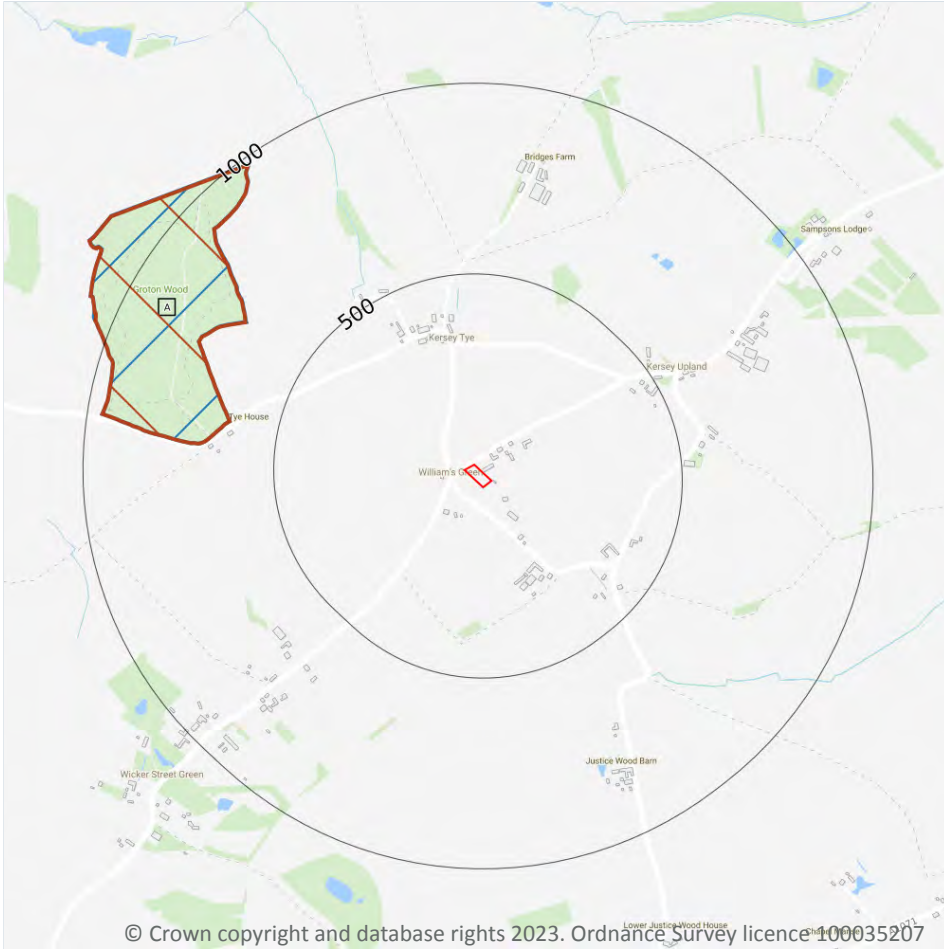
**Low**

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 42**

*This data is sourced from Ambiental Risk Analytics.*

## 10 Environmental designations



### 10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

1

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 43**

ID	Location	Name	Data source
A	629m W	Groton Wood	Natural England



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

## 10.2 Conserved wetland sites (Ramsar sites)

**Records within 2000m**

**0**

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

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

## 10.3 Special Areas of Conservation (SAC)

**Records within 2000m**

**0**

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

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

## 10.4 Special Protection Areas (SPA)

**Records within 2000m**

**0**

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

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

## 10.5 National Nature Reserves (NNR)

**Records within 2000m**

**0**

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

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



## 10.6 Local Nature Reserves (LNR)

Records within 2000m

0

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

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

## 10.7 Designated Ancient Woodland

Records within 2000m

6

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 43**

ID	Location	Name	Woodland Type
A	629m W	Groton Wood	Ancient & Semi-Natural Woodland
-	1280m S	Stony Grove	Ancient & Semi-Natural Woodland
-	1333m S	Stony Grove	Ancient & Semi-Natural Woodland
-	1843m N	Howe Wood	Ancient & Semi-Natural Woodland
-	1860m SE	Stack Wood	Ancient & Semi-Natural Woodland
-	1960m SE	Coram Street 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

0

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

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

## 10.12 Proposed Ramsar sites

Records within 2000m

0

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

*This data is sourced from Natural England.*

## 10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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



## 10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

*This data is sourced from Natural England.*

## 10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

*This data is sourced from Natural England.*

## 10.16 Nitrate Vulnerable Zones

Records within 2000m

2

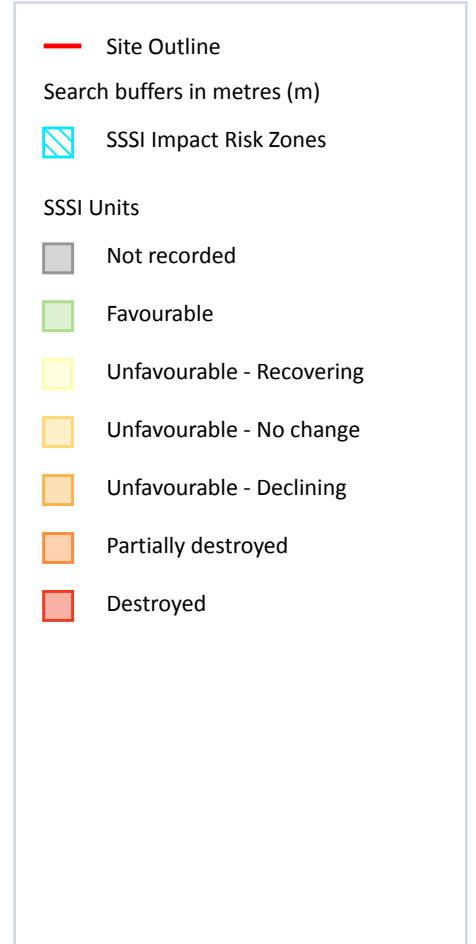
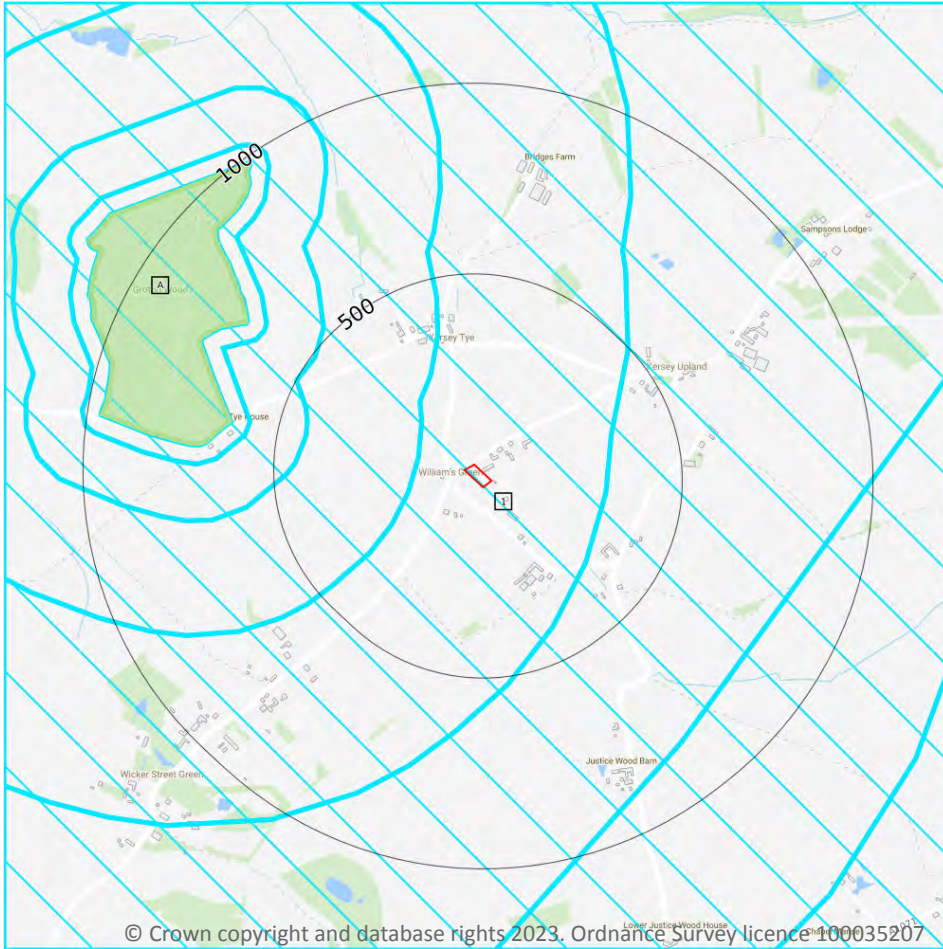
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Lower Stour NVZ	Surface Water	424	Existing
On site	Sandlings and Chelmsford	Groundwater	78	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

1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 48**

ID	Location	Type of developments requiring consultation
1	On site	<p><b>Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals.</b></p> <p><b>Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil &amp; gas exploration/extraction.</b></p> <p><b>Residential - Residential development of 100 units or more.</b></p> <p><b>Rural residential - Any residential development of 50 or more houses outside existing settlements/urban areas.</b></p> <p><b>Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock &amp; poultry units with floorspace &gt; 500m<sup>2</sup>, slurry lagoons &amp; digestate stores &gt; 200m<sup>2</sup>, manure stores &gt; 250t).</b></p> <p><b>Combustion - General combustion processes &gt;20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.</b></p> <p><b>Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill.</b></p> <p><b>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.</b></p> <p><b>Water supply - Large infrastructure such as warehousing / industry where net additional gross internal floorspace is &gt; 1,000m<sup>2</sup> or any development needing its own water supply .</b></p>

*This data is sourced from Natural England.*

## 10.18 SSSI Units

Records within 2000m

1

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 48**

ID: A  
 Location: 629m W  
 SSSI name: Groton Wood  
 Unit name: Groton Wood  
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland  
 Condition: Favourable  
 Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	06/10/2006

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





## 11 Visual and cultural designations

### 11.1 World Heritage Sites

Records within 250m

0

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

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

### 11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

### 11.3 National Parks

Records within 250m

0

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

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

### 11.4 Listed Buildings

Records within 250m

0

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





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

## 11.5 Conservation Areas

**Records within 250m**

**0**

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

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

## 11.6 Scheduled Ancient Monuments

**Records within 250m**

**0**

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

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

## 11.7 Registered Parks and Gardens

**Records within 250m**

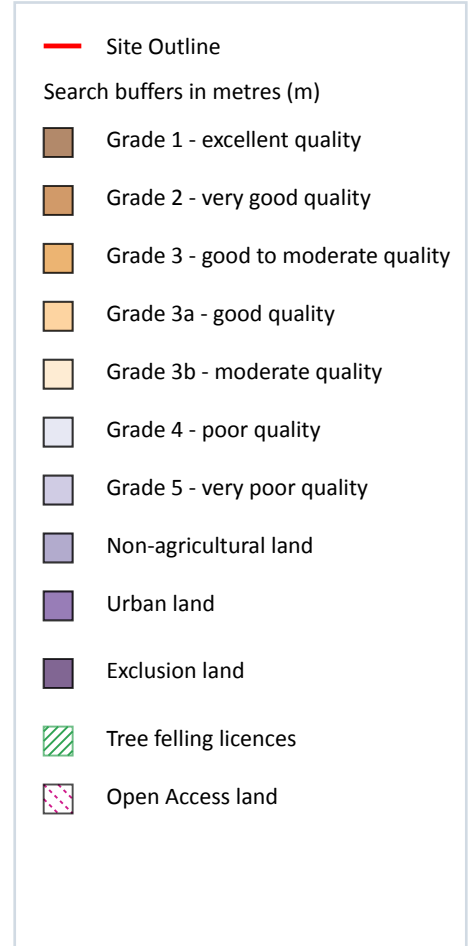
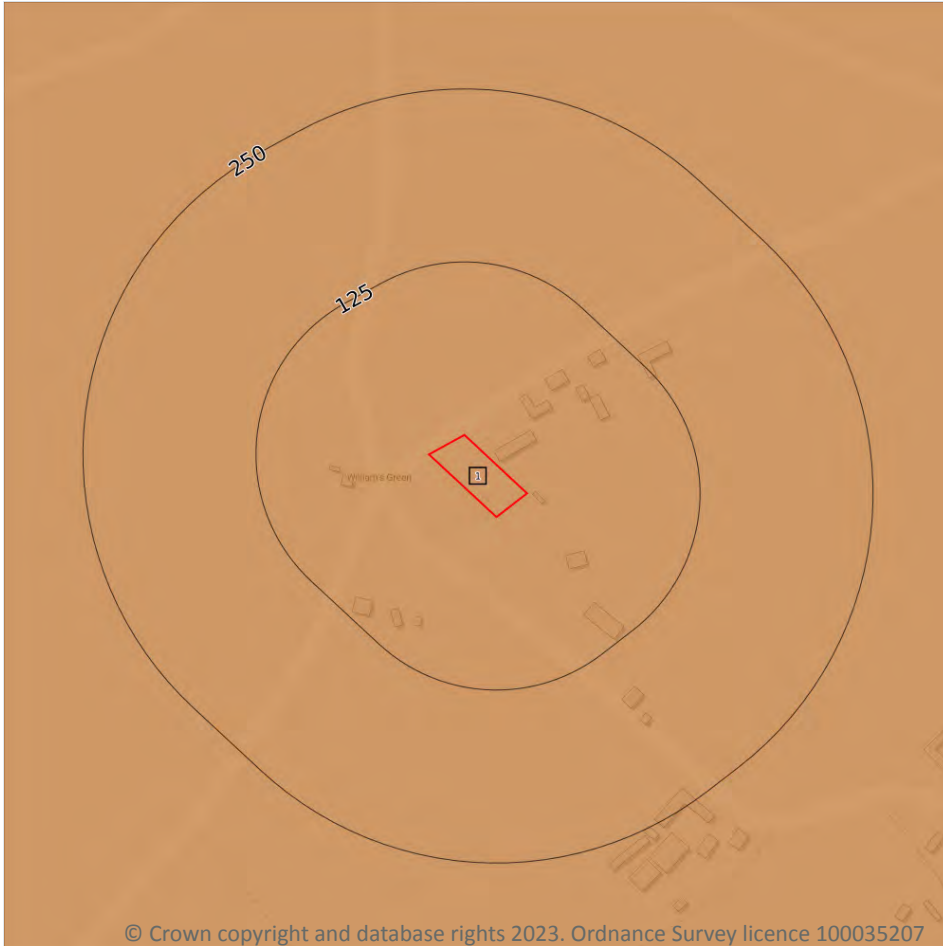
**0**

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

1

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

Features are displayed on the Agricultural designations map on **page 52**

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

*This data is sourced from Natural England.*

## 12.2 Open Access Land

**Records within 250m**

**0**

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

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

## 12.3 Tree Felling Licences

**Records within 250m**

**0**

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

*This data is sourced from the Forestry Commission.*

## 12.4 Environmental Stewardship Schemes

**Records within 250m**

**4**

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
6m NW	AG00340215	Entry Level plus Higher Level Stewardship	01/05/2011	30/04/2021
13m E	AG00340215	Entry Level plus Higher Level Stewardship	01/05/2011	30/04/2021
55m W	AG00340215	Entry Level plus Higher Level Stewardship	01/05/2011	30/04/2021
78m S	AG00340215	Entry Level plus Higher Level Stewardship	01/05/2011	30/04/2021



*This data is sourced from Natural England.*

## 12.5 Countryside Stewardship Schemes

Records within 250m

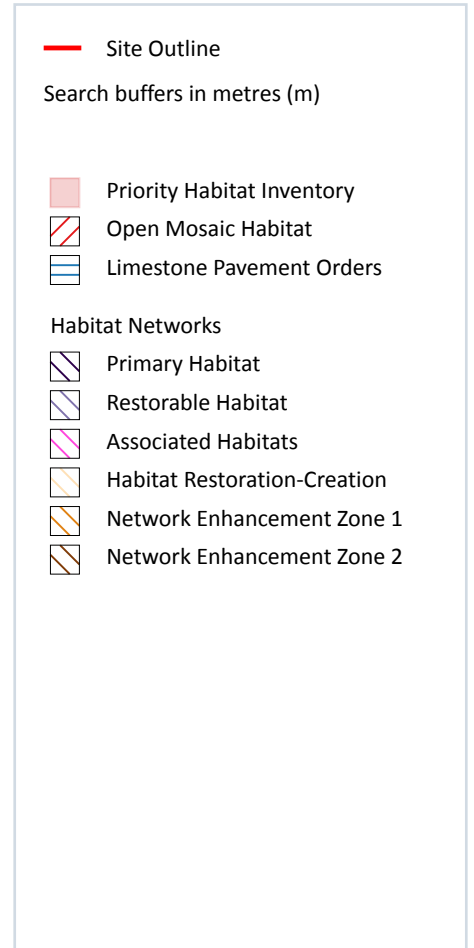
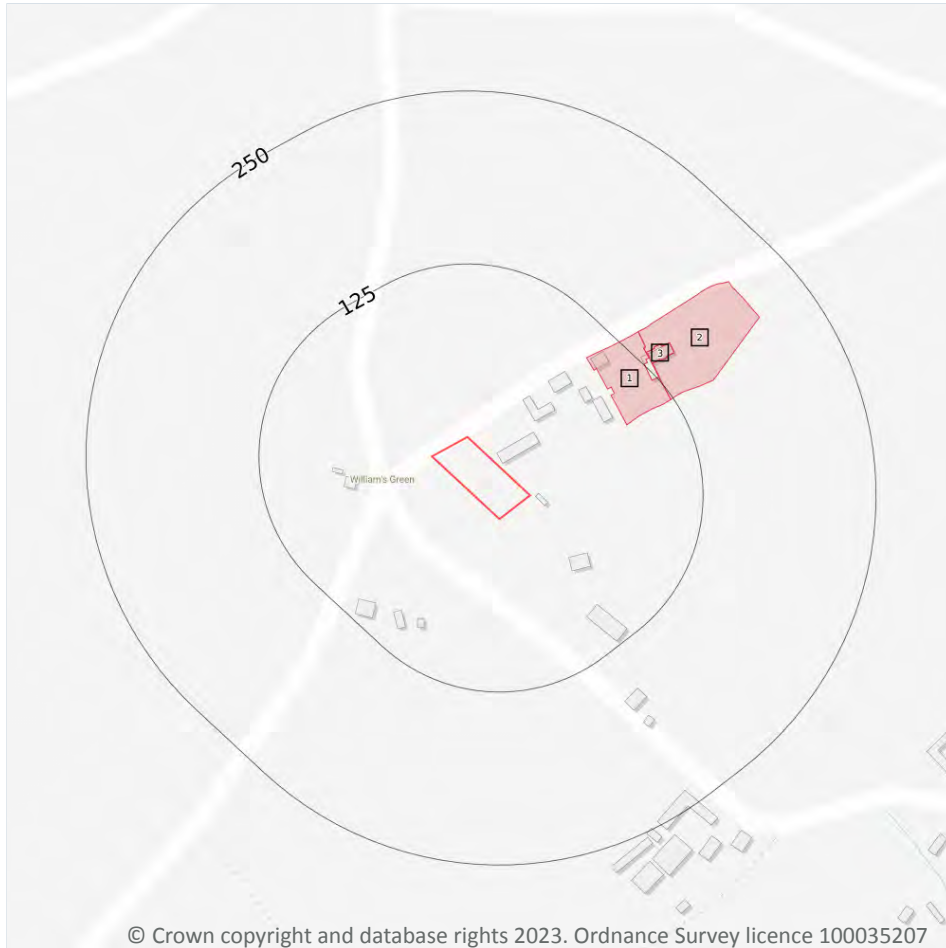
0

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

*This data is sourced from Natural England.*



## 13 Habitat designations



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### 13.1 Priority Habitat Inventory

Records within 250m

3

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

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

ID	Location	Main Habitat	Other habitats
1	87m E	Traditional orchard	Main habitat: TORCH (INV > 50%); DWOOD (INV > 50%)
2	123m E	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
3	126m NE	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset

*This data is sourced from Natural England.*

## 13.2 Habitat Networks

Records within 250m

0

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

*This data is sourced from Natural England.*

## 13.3 Open Mosaic Habitat

Records within 250m

0

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

*This data is sourced from Natural England.*

## 13.4 Limestone Pavement Orders

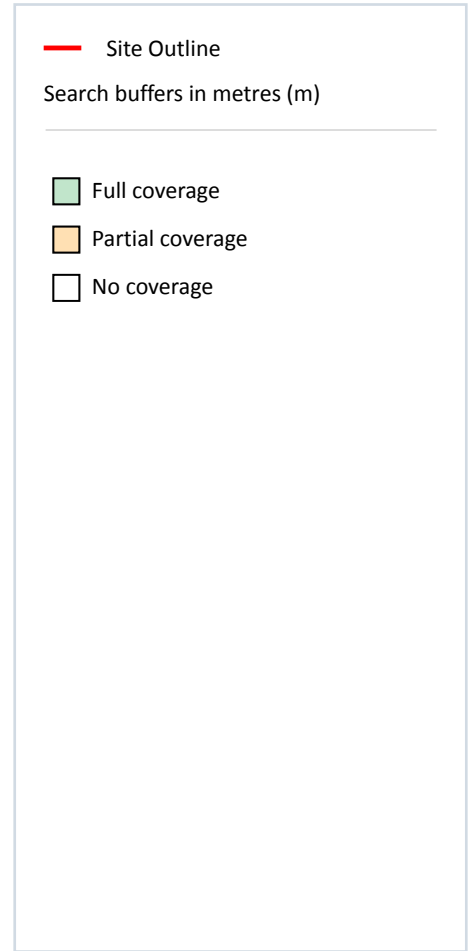
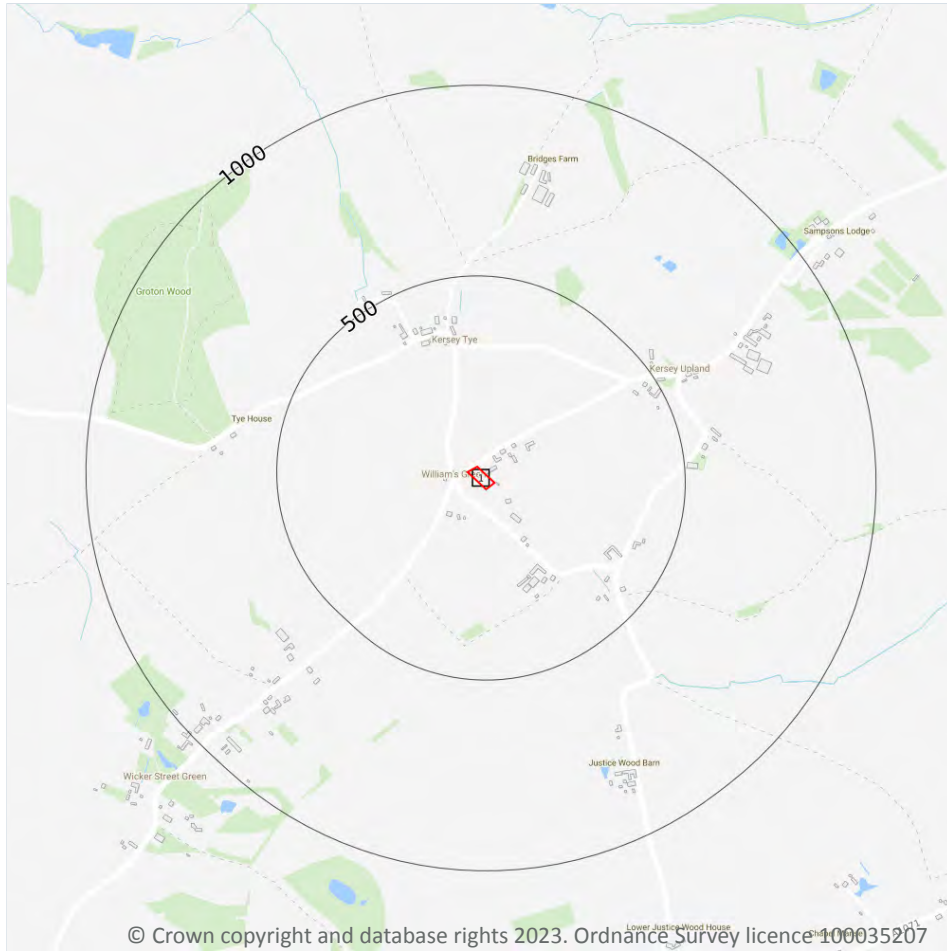
Records within 250m

0

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

*This data is sourced from Natural England.*

## 14 Geology 1:10,000 scale - Availability



### 14.1 10k Availability

#### Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 57**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	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

### 14.3 Superficial geology (10k)

Records within 500m

0

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.

*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

### 14.5 Bedrock geology (10k)

Records within 500m

0

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.

*This data is sourced from the British Geological Survey.*

### 14.6 Bedrock faults and other linear features (10k)

Records within 500m

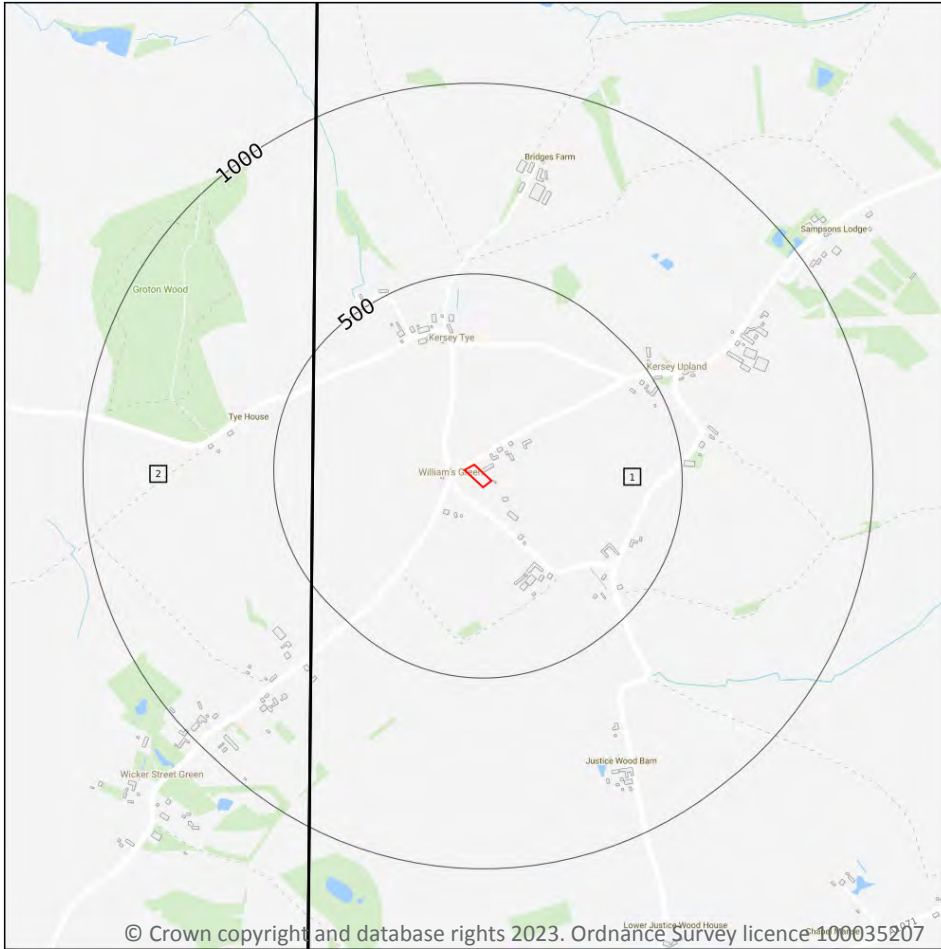
0

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

*This data is sourced from the British Geological Survey.*



## 15 Geology 1:50,000 scale - Availability



— Site Outline  
Search buffers in metres (m)

□ Geological map tile

### 15.1 50k Availability

Records within 500m

2

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 61**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW207_ipswich_v4
2	398m W	Full	Full	Full	Full	EW206_sudbury_v4

*This data is sourced from the British Geological Survey.*

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

### 15.2 Artificial and made ground (50k)

Records within 500m

0

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

*This data is sourced from the British Geological Survey.*

### 15.3 Artificial ground permeability (50k)

Records within 50m

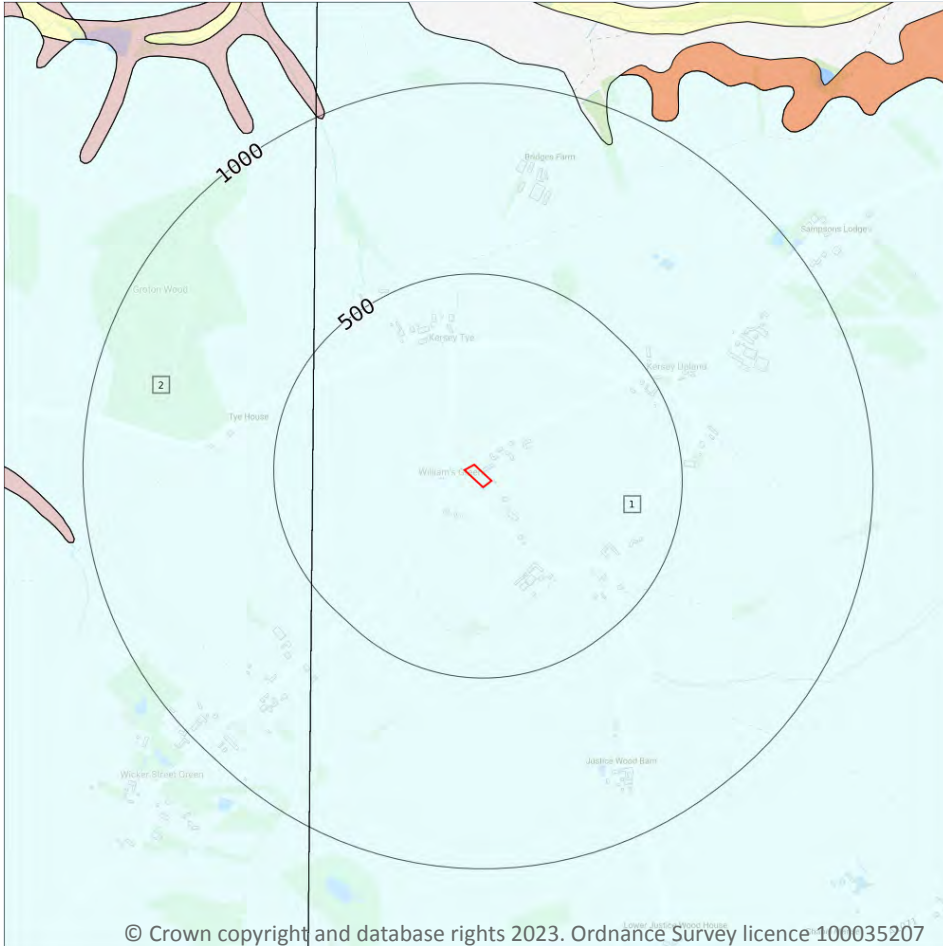
0

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

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Superficial



- Site Outline
- Search buffers in metres (m)
- Landslip (50k)
- Superficial geology (50k)  
Please see table for more details.

### 15.4 Superficial geology (50k)

Records within 500m

2

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 63**

ID	Location	LEX Code	Description	Rock description
1	On site	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON
2	398m W	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON

*This data is sourced from the British Geological Survey.*

## 15.5 Superficial permeability (50k)

**Records within 50m** **1**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Moderate	Low

*This data is sourced from the British Geological Survey.*

## 15.6 Landslip (50k)

**Records within 500m** **0**

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

*This data is sourced from the British Geological Survey.*

## 15.7 Landslip permeability (50k)

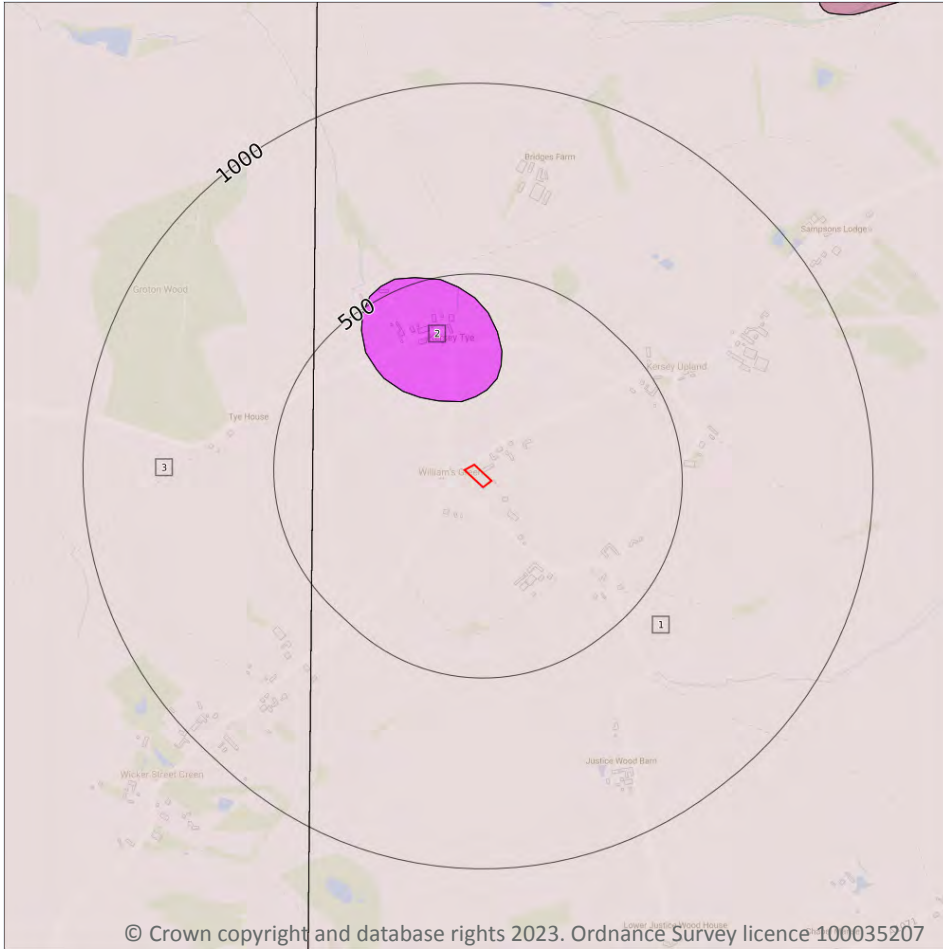
**Records within 50m** **0**

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

*This data is sourced from the British Geological Survey.*



## Geology 1:50,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (50k)
- Bedrock geology (50k)  
Please see table for more details.

### 15.8 Bedrock geology (50k)

Records within 500m

3

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 65**

ID	Location	LEX Code	Description	Rock age
1	On site	THAM-XCZS	THAMES GROUP - CLAY, SILT AND SAND	-
2	169m N	RCG-S	RED CRAG FORMATION - SAND	PIACENZIAN
3	398m W	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN

*This data is sourced from the British Geological Survey.*

## 15.9 Bedrock permeability (50k)

<b>Records within 50m</b>	<b>1</b>
---------------------------	----------

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
<b>On site</b>	<b>Mixed</b>	<b>Moderate</b>	<b>Very Low</b>

*This data is sourced from the British Geological Survey.*

## 15.10 Bedrock faults and other linear features (50k)

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

*This data is sourced from the British Geological Survey.*

## 16 Boreholes

### 16.1 BGS Boreholes

Records within 250m

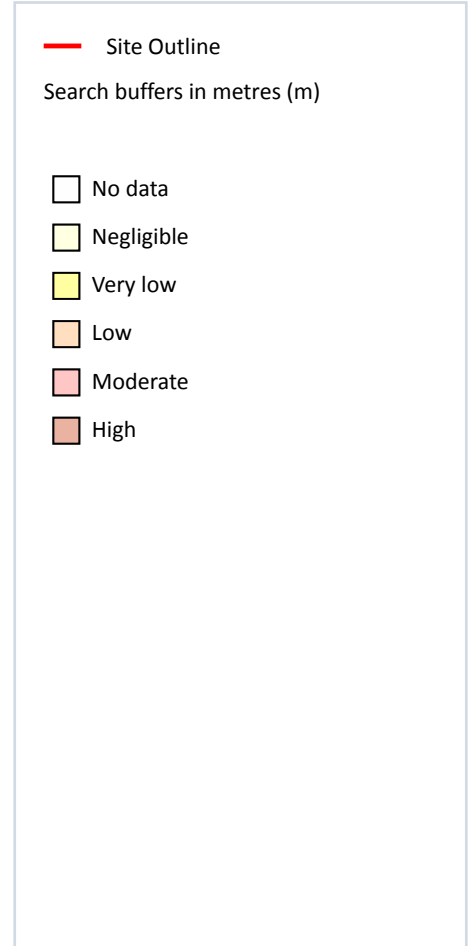
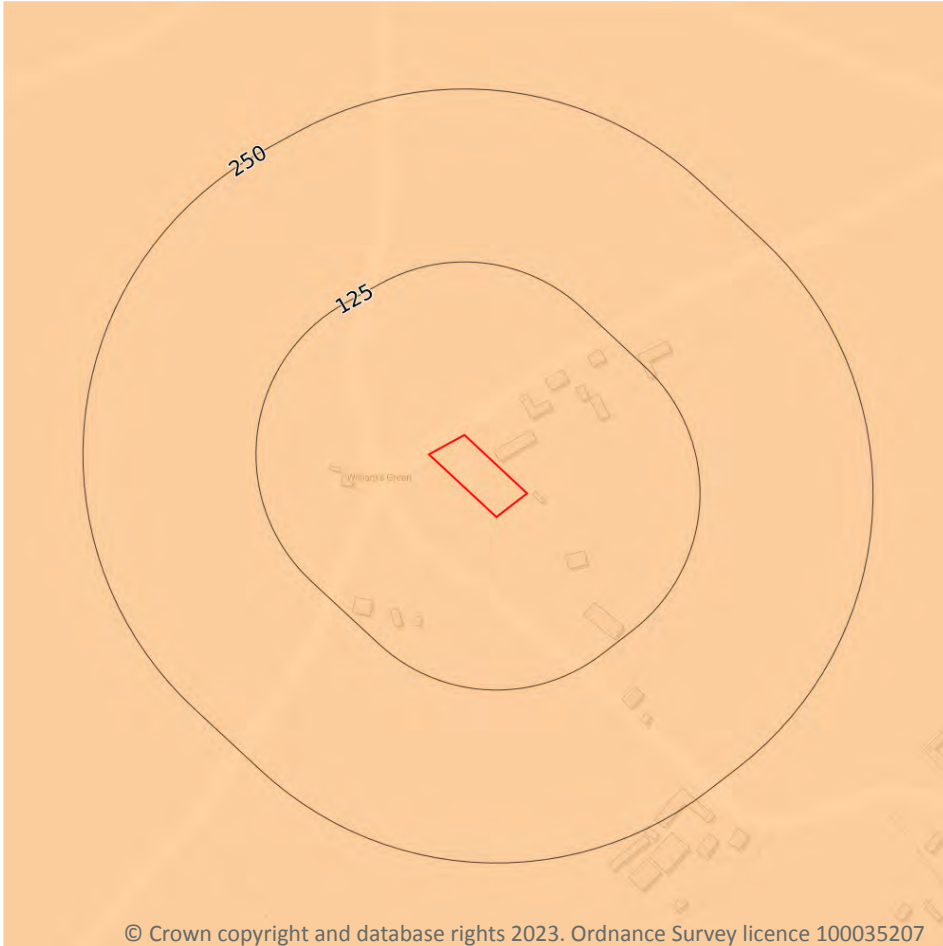
0

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

*This data is sourced from the British Geological Survey.*



## 17 Natural ground subsidence - Shrink swell clays



### 17.1 Shrink swell clays

Records within 50m

1

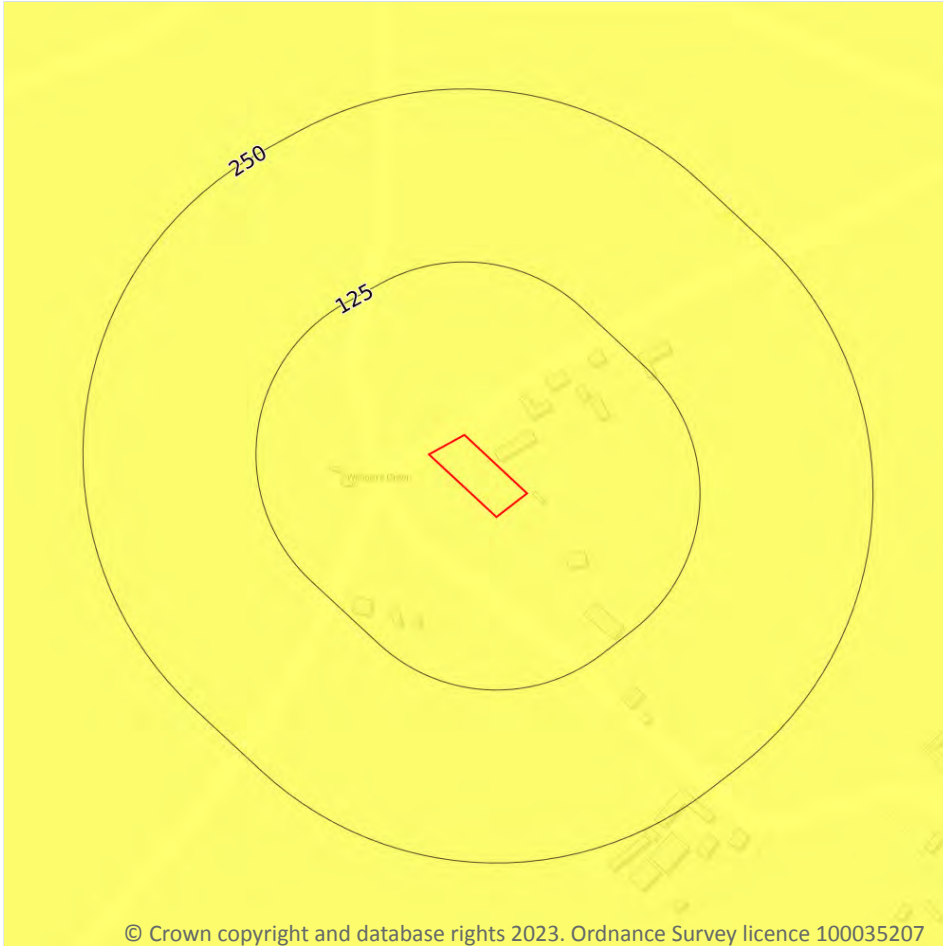
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 68**

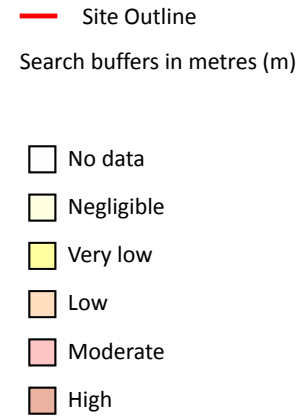
Location	Hazard rating	Details
On site	Low	Ground conditions predominantly medium plasticity.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Running sands



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### 17.2 Running sands

Records within 50m

1

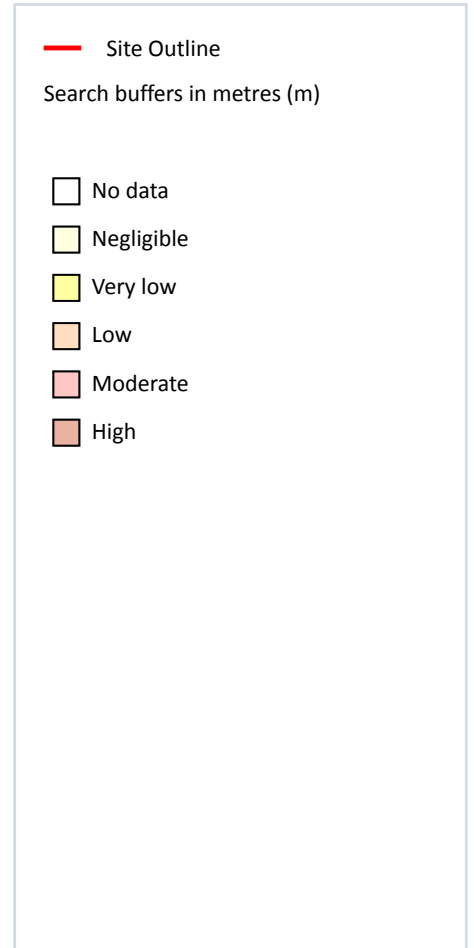
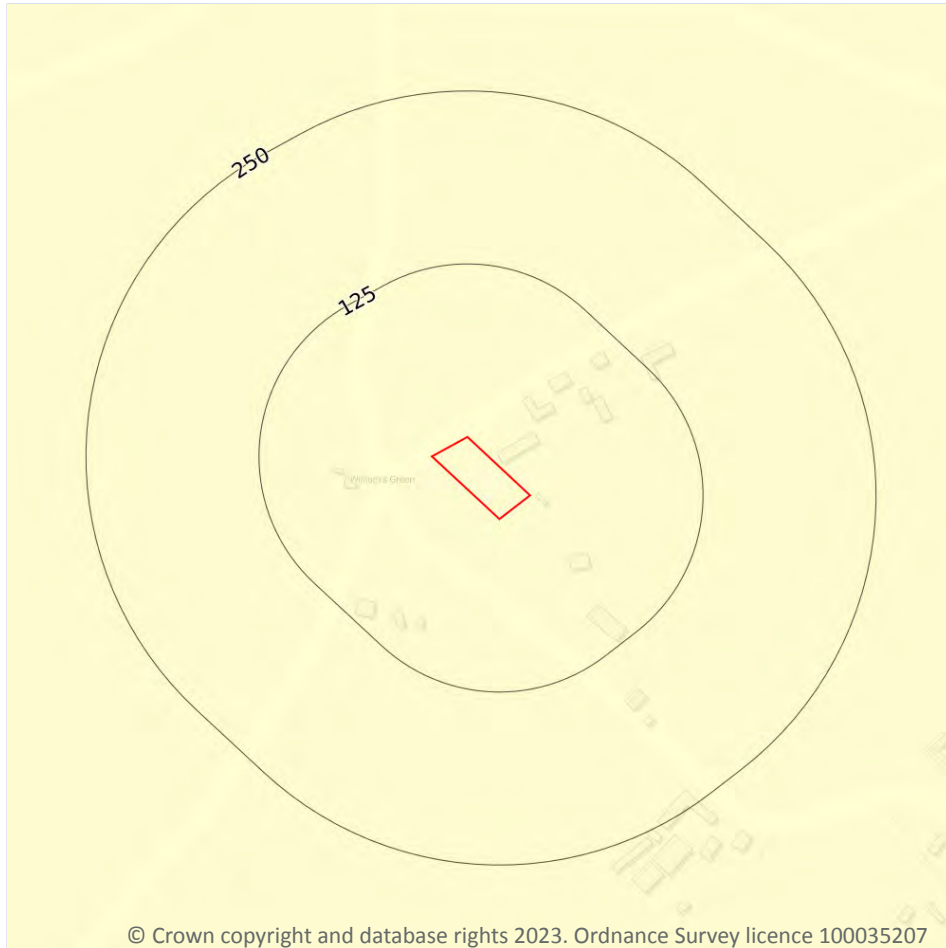
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 69**

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.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Compressible deposits



### 17.3 Compressible deposits

Records within 50m

1

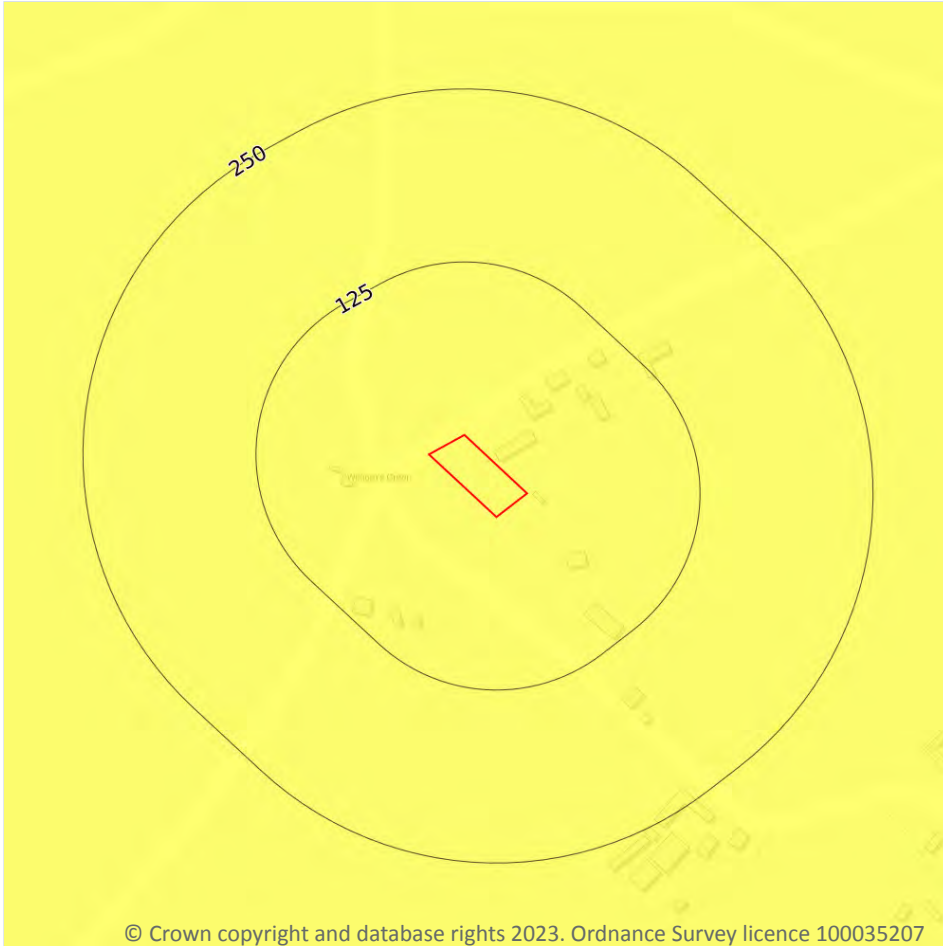
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 70**

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Collapsible deposits



— Site Outline

Search buffers in metres (m)

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

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### 17.4 Collapsible deposits

Records within 50m

1

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

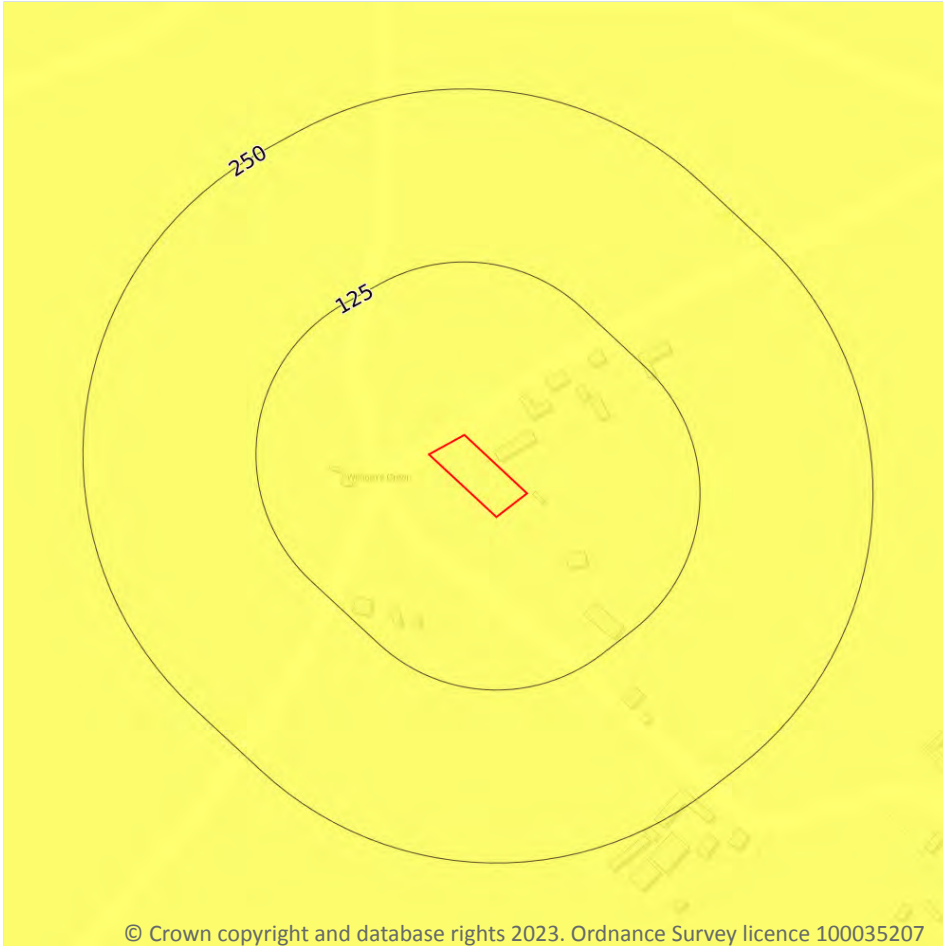
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 71**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

*This data is sourced from the British Geological Survey.*



## Natural ground subsidence - Landslides



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### 17.5 Landslides

Records within 50m

1

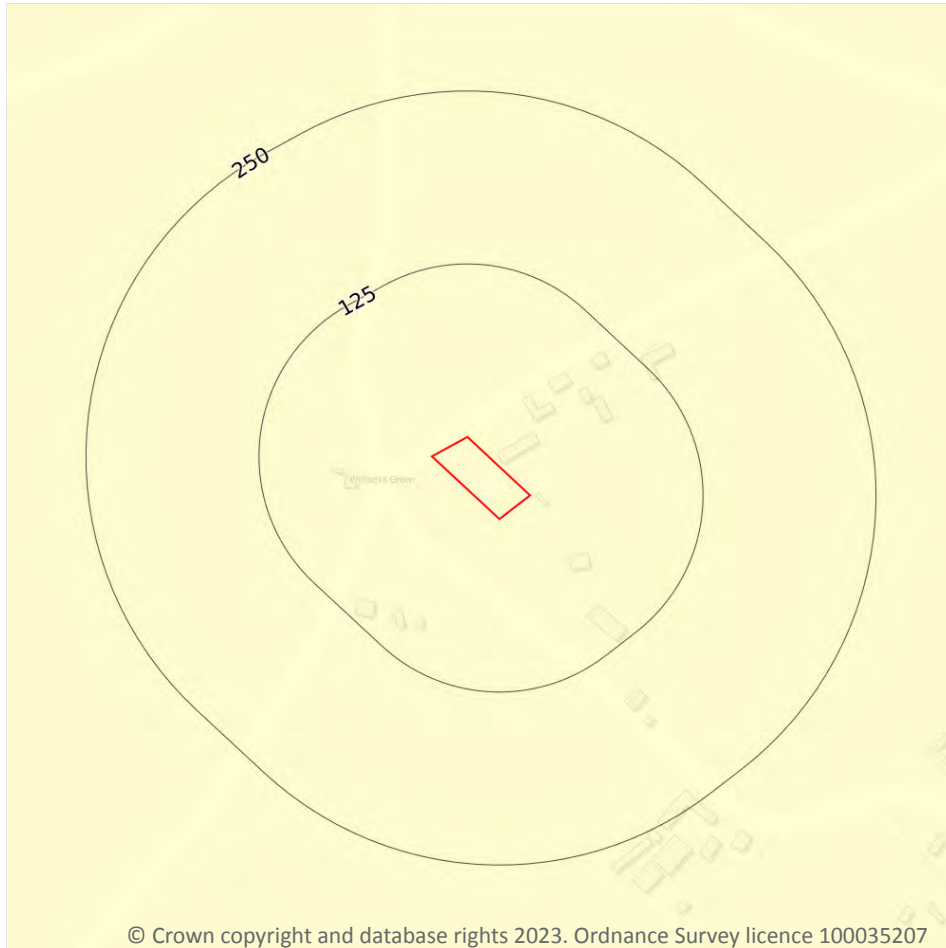
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 72**

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

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Ground dissolution of soluble rocks



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### 17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 73**

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

*This data is sourced from the British Geological Survey.*

## 18 Mining, ground workings and natural cavities

### 18.1 Natural cavities

Records within 500m

0

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

*This data is sourced from Stantec UK Ltd.*

### 18.2 BritPits

Records within 500m

0

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

*This data is sourced from the British Geological Survey.*

### 18.3 Surface ground workings

Records within 250m

0

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.

*This is data is sourced from Ordnance Survey/Groundsure.*

### 18.4 Underground workings

Records within 1000m

0

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

*This is data is sourced from Ordnance Survey/Groundsure.*



## 18.5 Historical Mineral Planning Areas

Records within 500m

0

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

*This data is sourced from the British Geological Survey.*

## 18.6 Non-coal mining

Records within 1000m

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.*

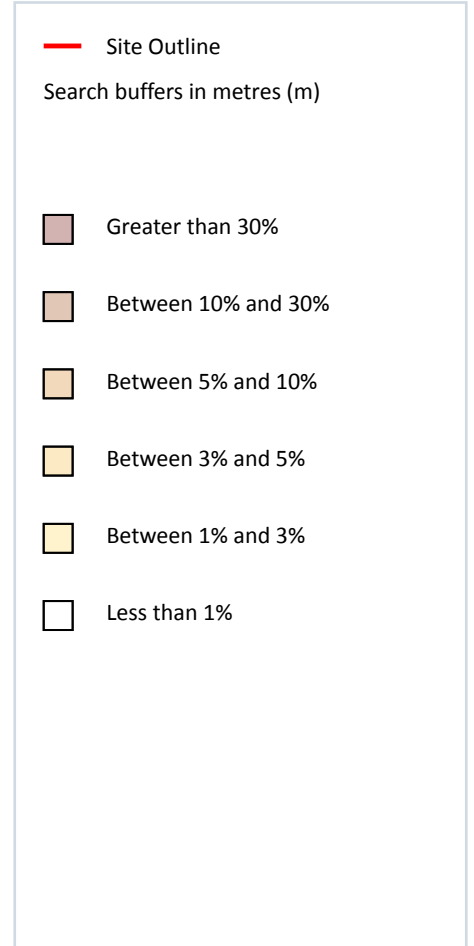
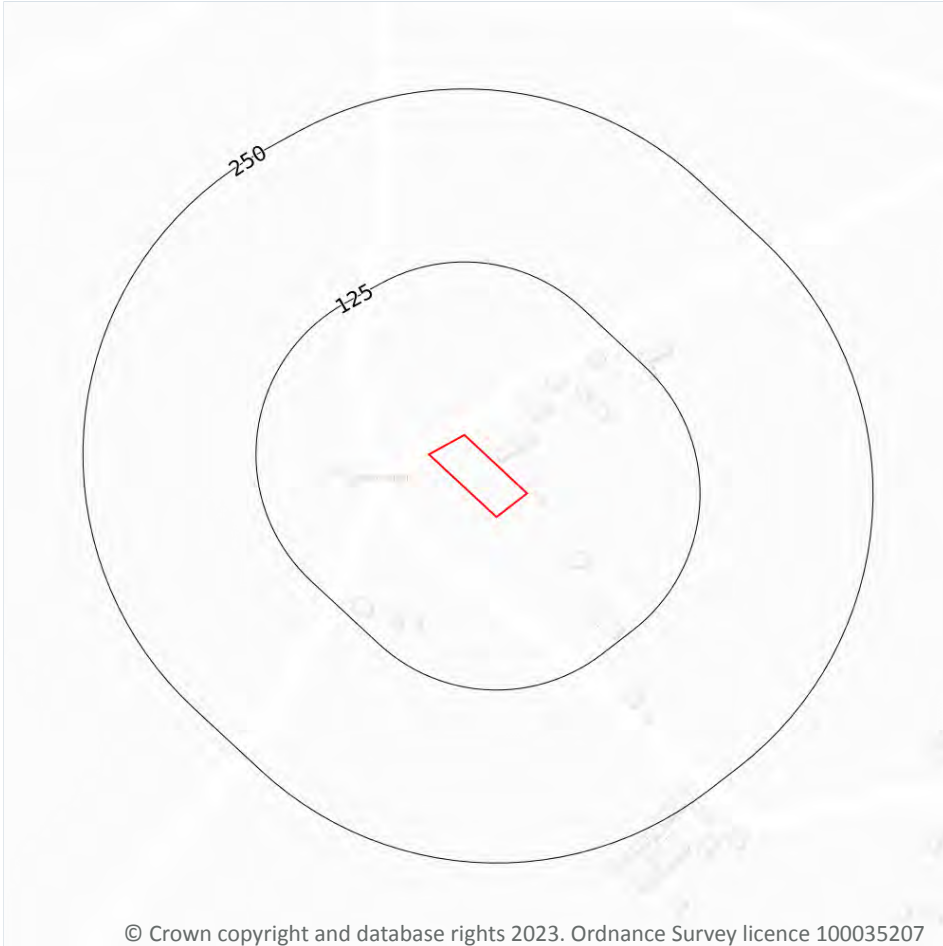
### 18.13 Clay mining

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



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### 19.1 Radon

#### Records on site

1

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

Features are displayed on the Radon map on **page 77**

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

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





## 20 Soil chemistry

### 20.1 BGS Estimated Background Soil Chemistry

Records within 50m

1

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km<sup>2</sup>. 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<sup>2</sup>; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 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<sup>2</sup>).

*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<sup>2</sup>.

*This data is sourced from the British Geological Survey.*



## 21 Railway infrastructure and projects

### 21.1 Underground railways (London)

Records within 250m 0

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

*This data is sourced from publicly available information by Groundsure.*

### 21.2 Underground railways (Non-London)

Records within 250m 0

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

*This data is sourced from publicly available information by Groundsure.*

### 21.3 Railway tunnels

Records within 250m 0

Railway tunnels taken from contemporary Ordnance Survey mapping.

*This data is sourced from the Ordnance Survey.*

### 21.4 Historical railway and tunnel features

Records within 250m 0

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

*This data is sourced from Ordnance Survey/Groundsure.*

### 21.5 Royal Mail tunnels

Records within 250m 0

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



*This data is sourced from Groundsure/the Postal Museum.*

## 21.6 Historical railways

**Records within 250m** **0**

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

*This data is sourced from OpenStreetMap.*

## 21.7 Railways

**Records within 250m** **0**

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

*This data is sourced from Ordnance Survey and OpenStreetMap.*

## 21.8 Crossrail 1

**Records within 500m** **0**

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

*This data is sourced from publicly available information by Groundsure.*

## 21.9 Crossrail 2

**Records within 500m** **0**

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

*This data is sourced from publicly available information by Groundsure.*

## 21.10 HS2

**Records within 500m** **0**

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

*This data is sourced from HS2 Ltd.*



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## Data providers

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

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**APPENDIX 4** - Groundsure Historical Maps

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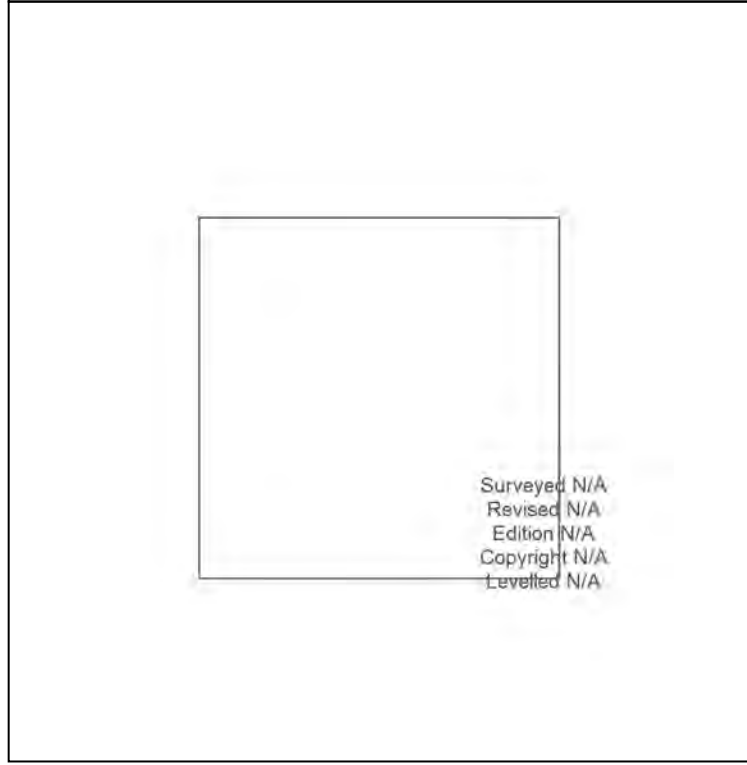
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Edition N/A  
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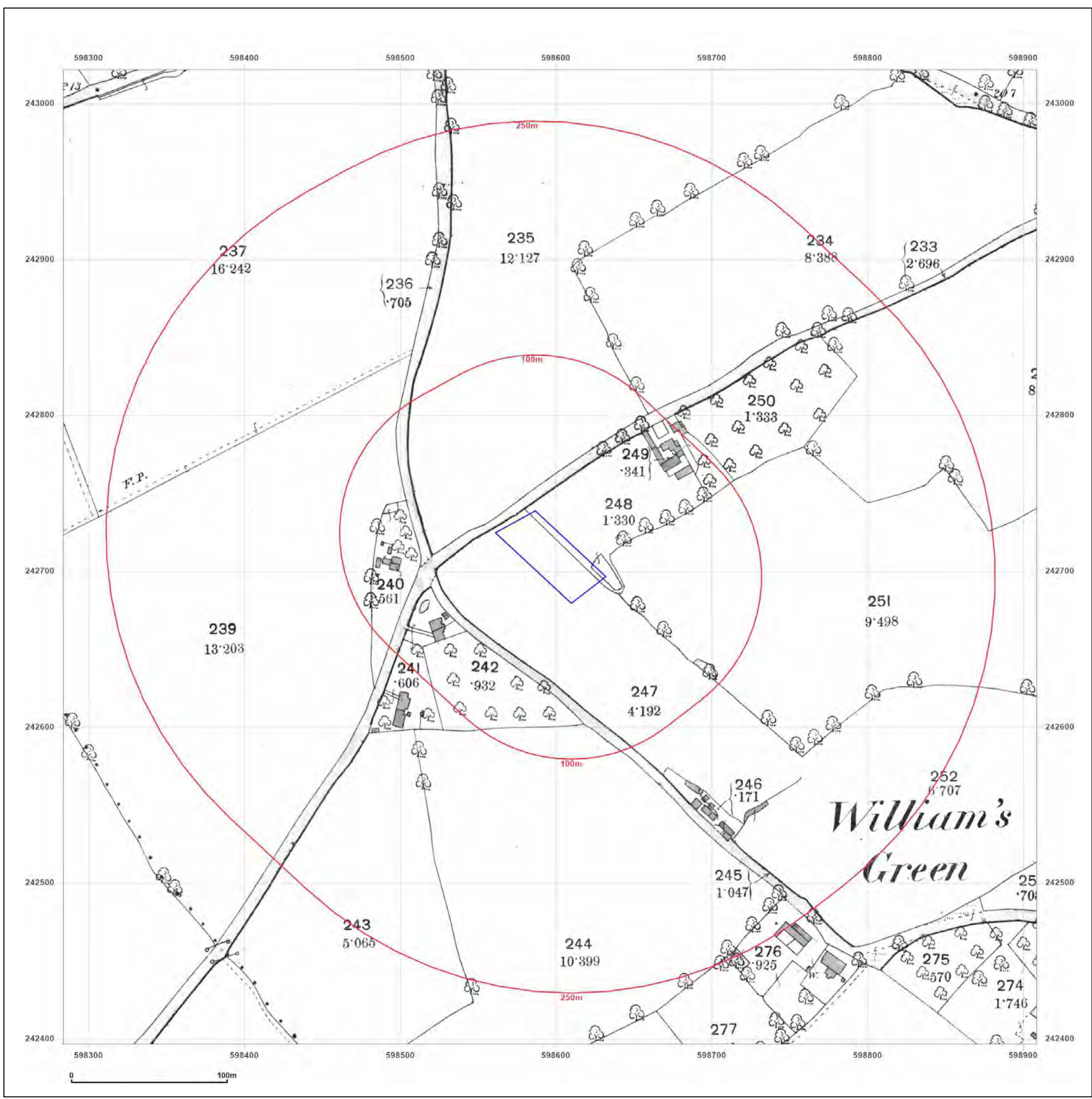


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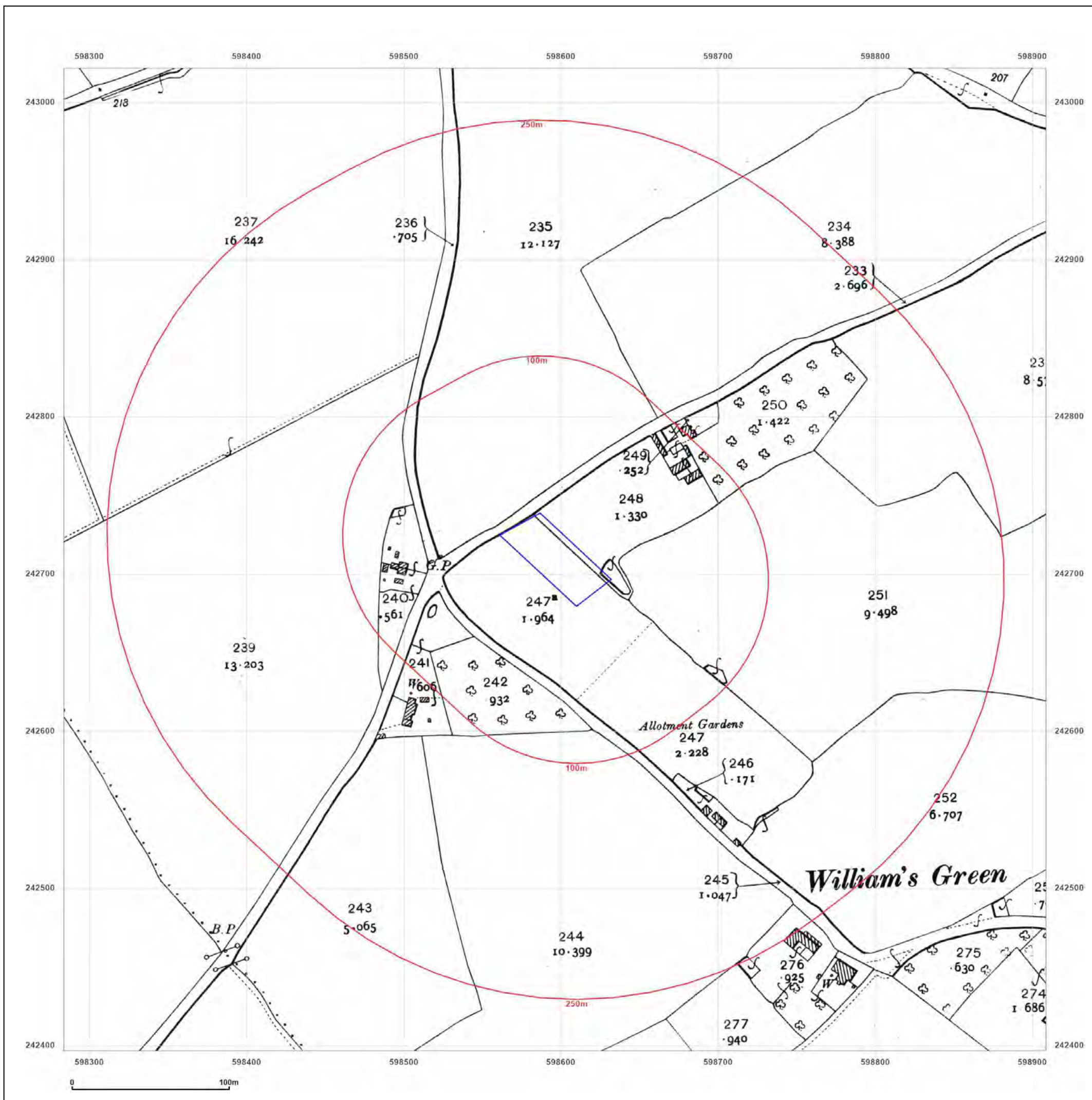


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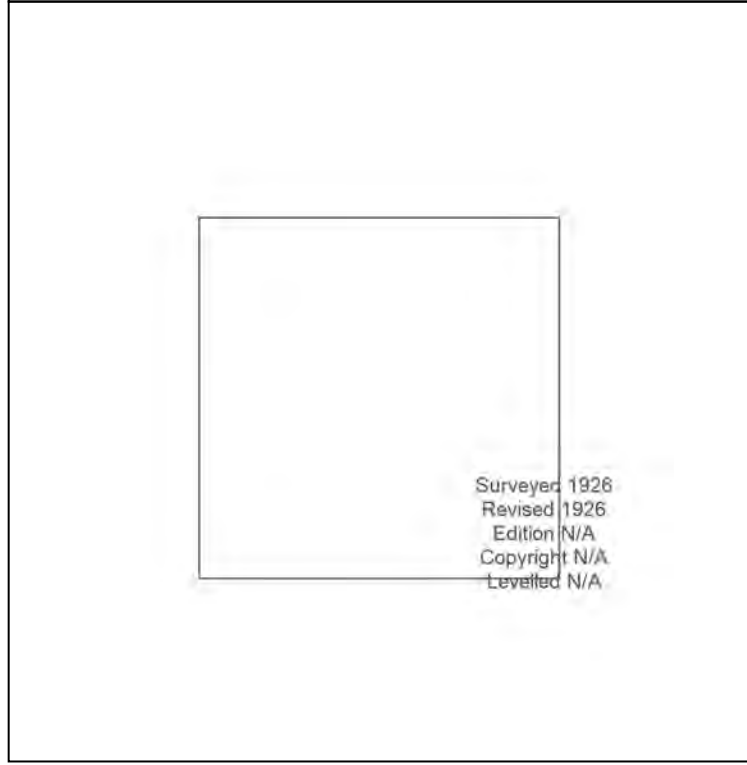
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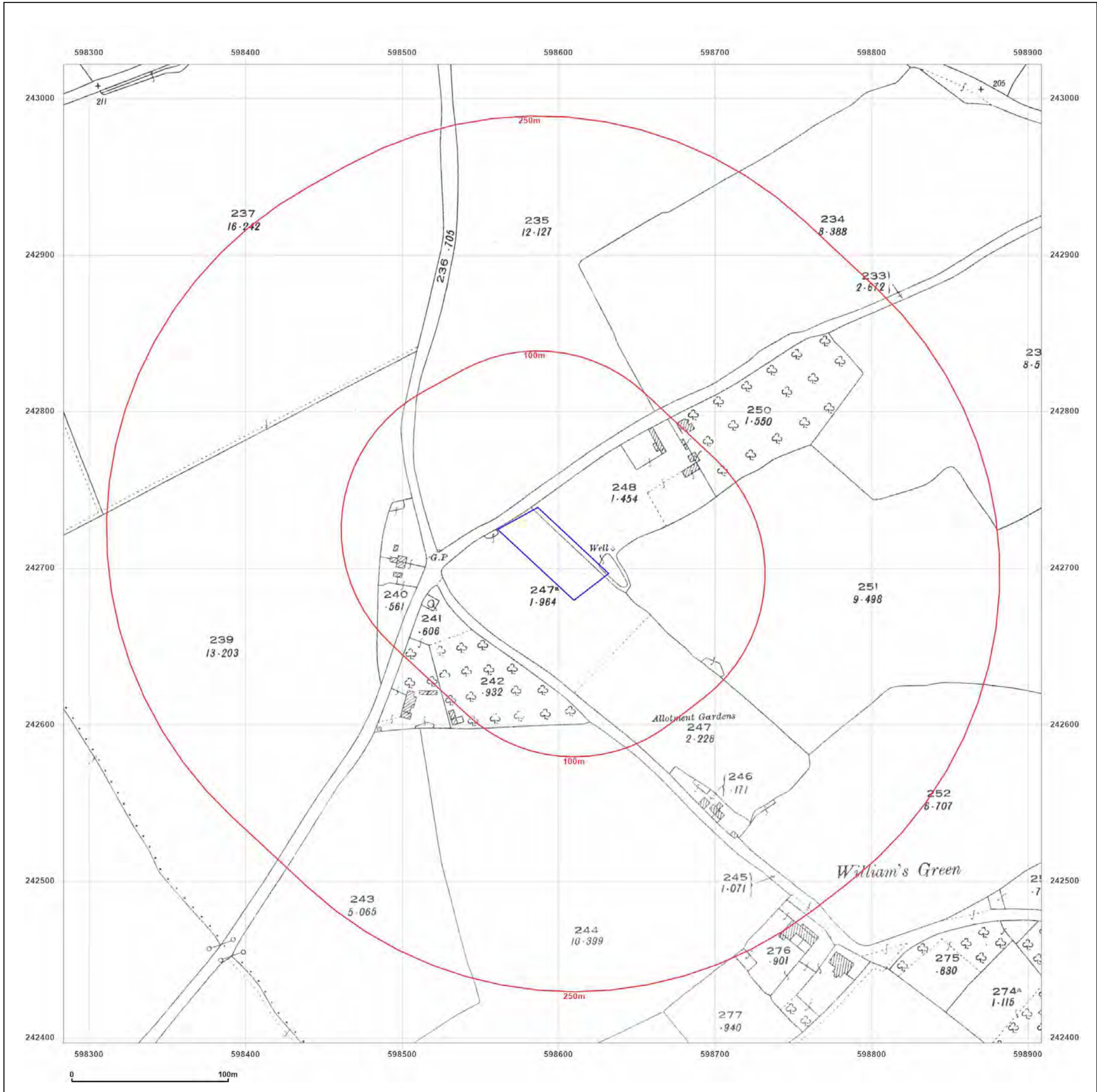


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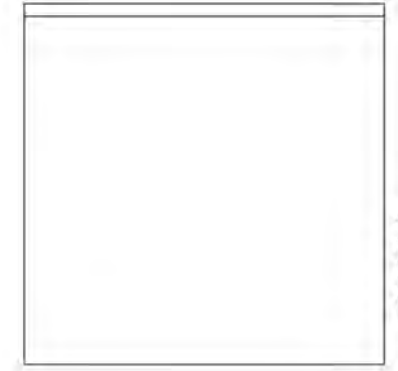
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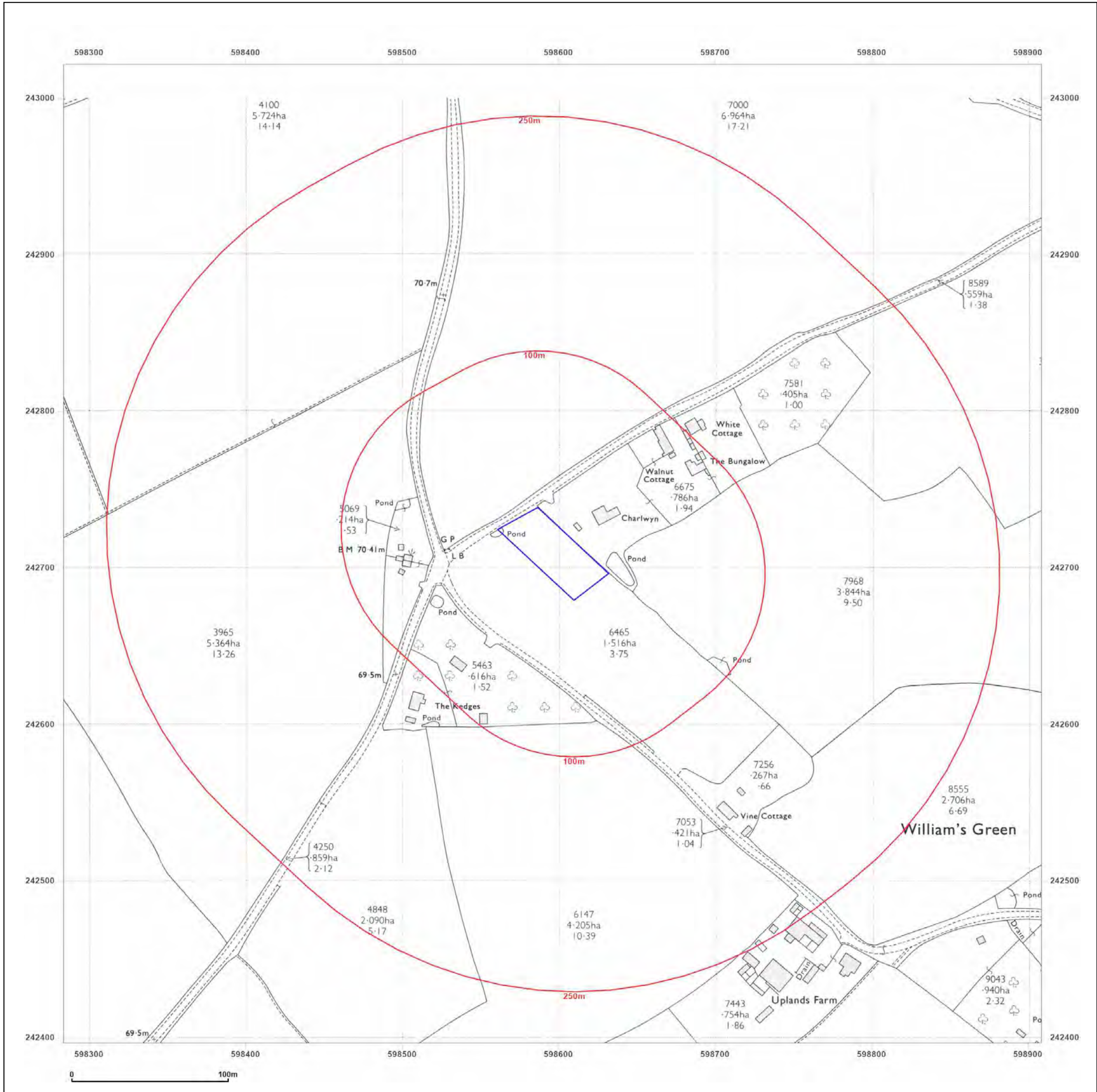


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Edition N/A  
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Revised N/A  
Edition N/A  
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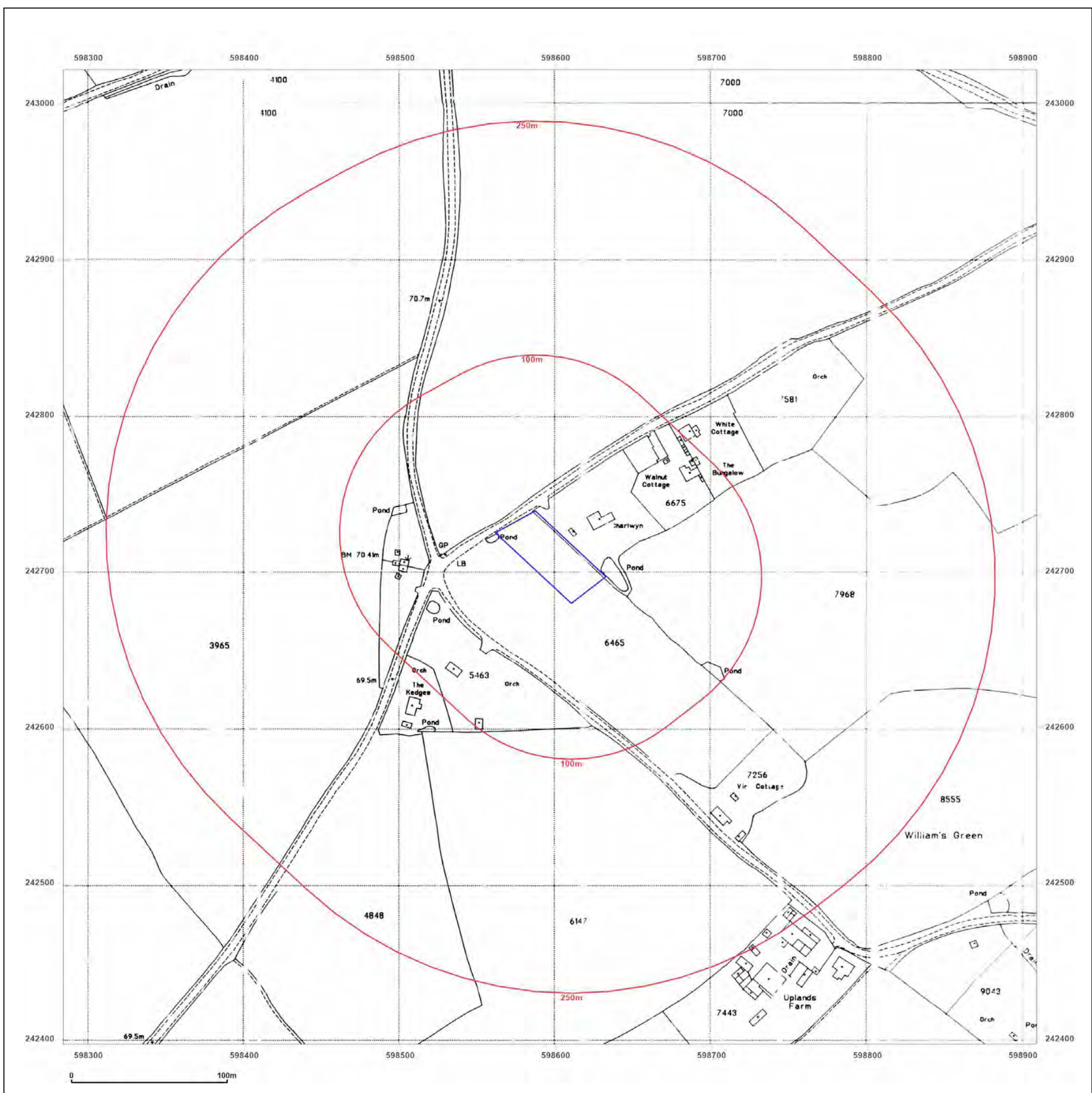


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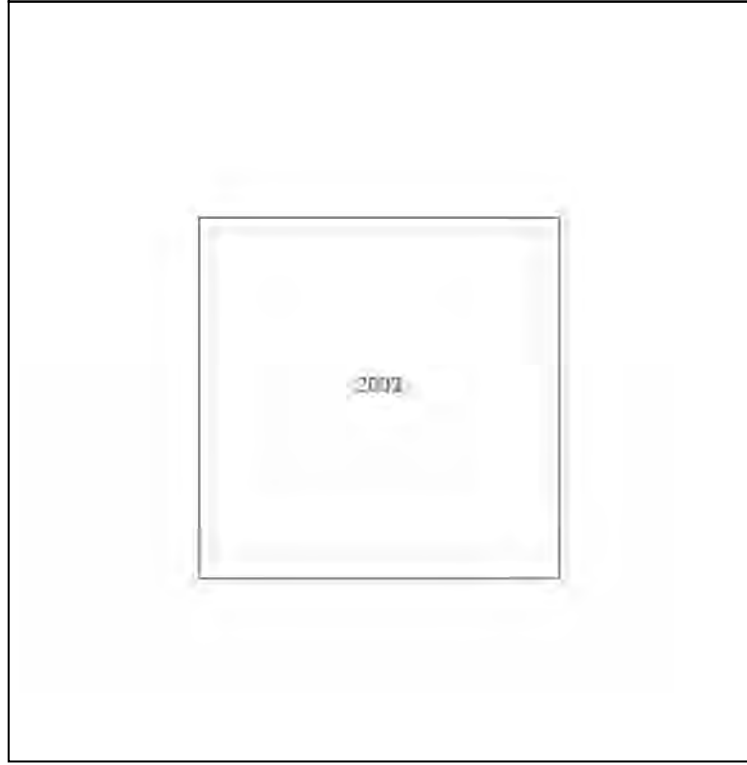
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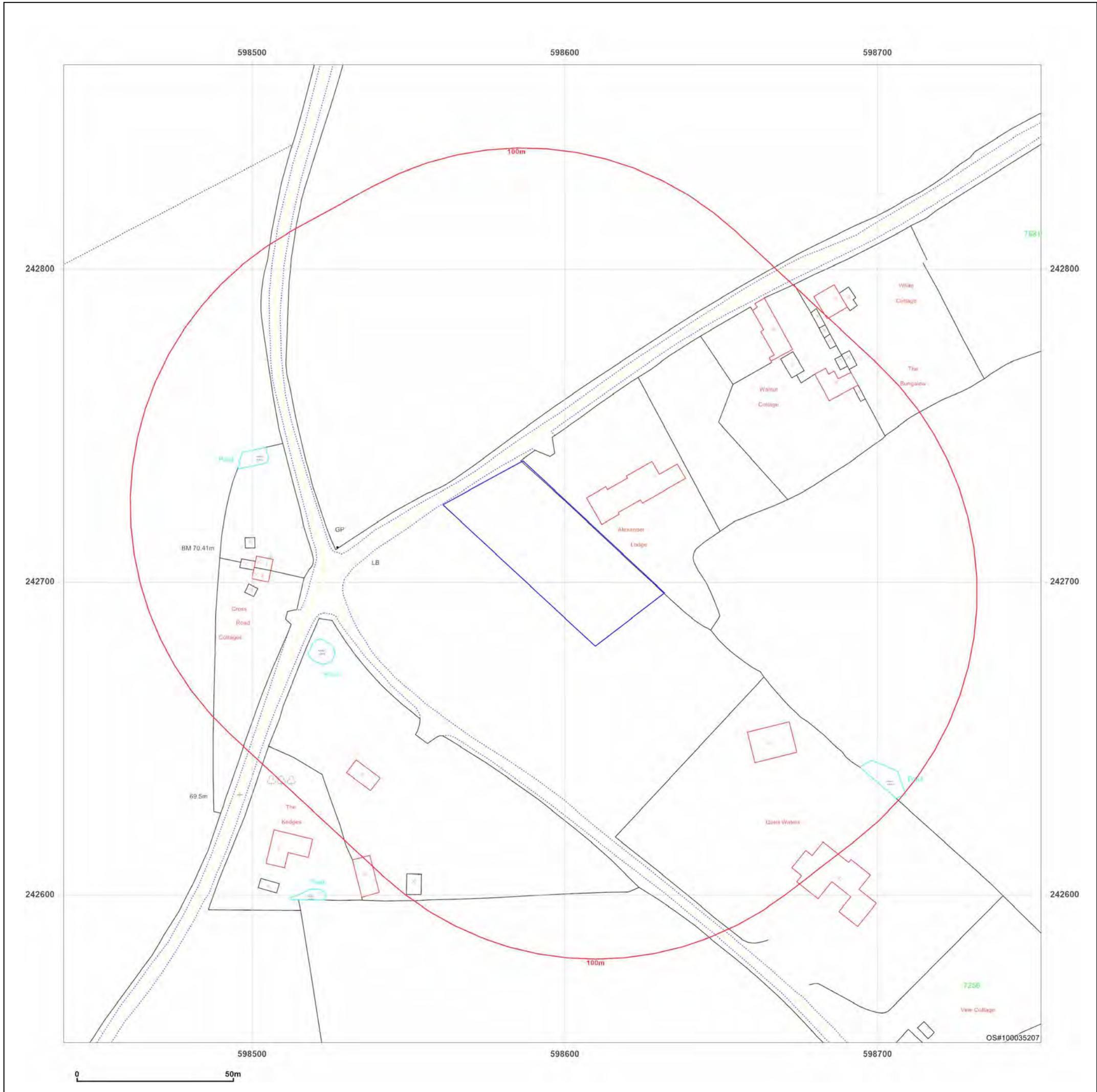


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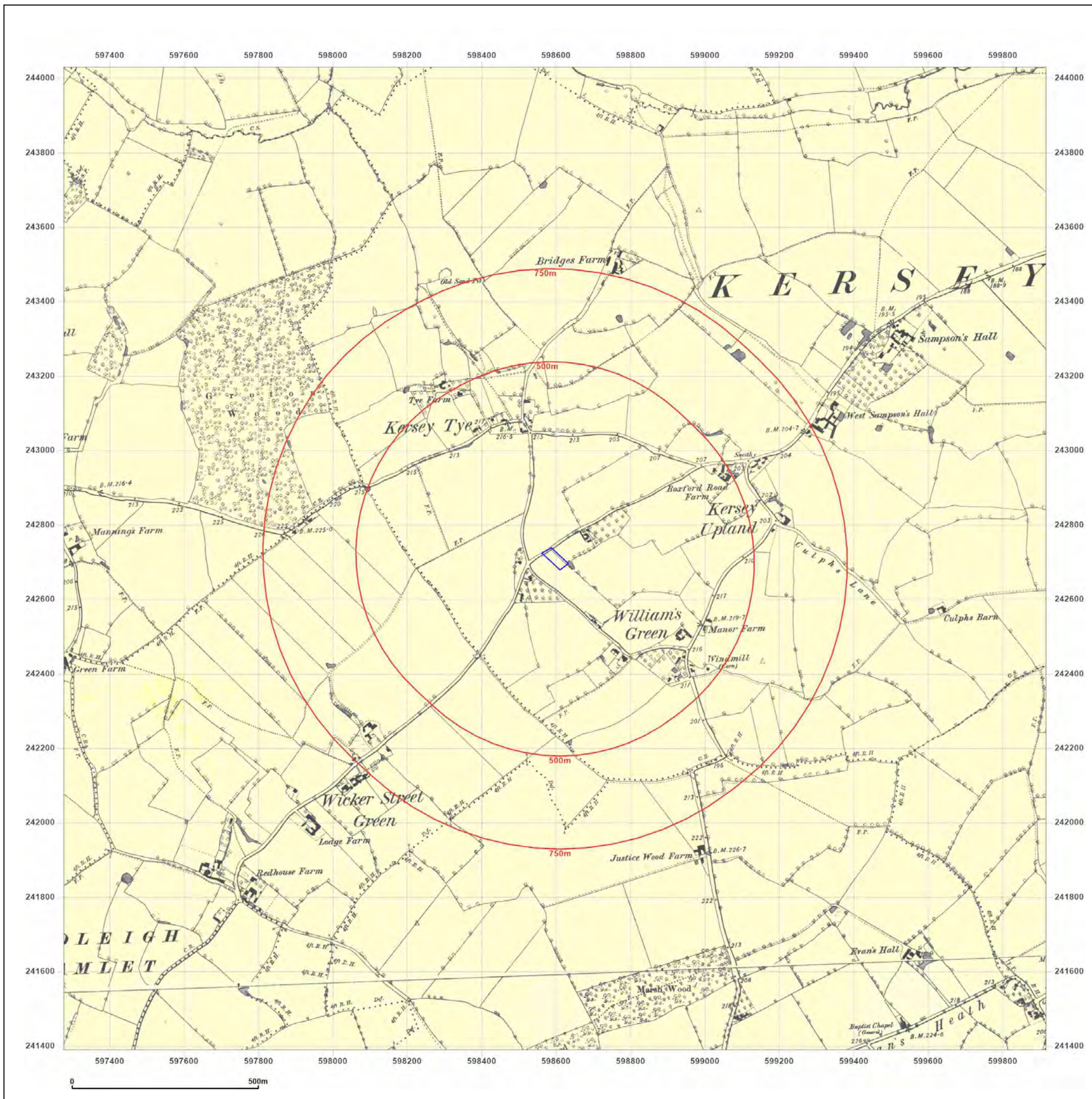


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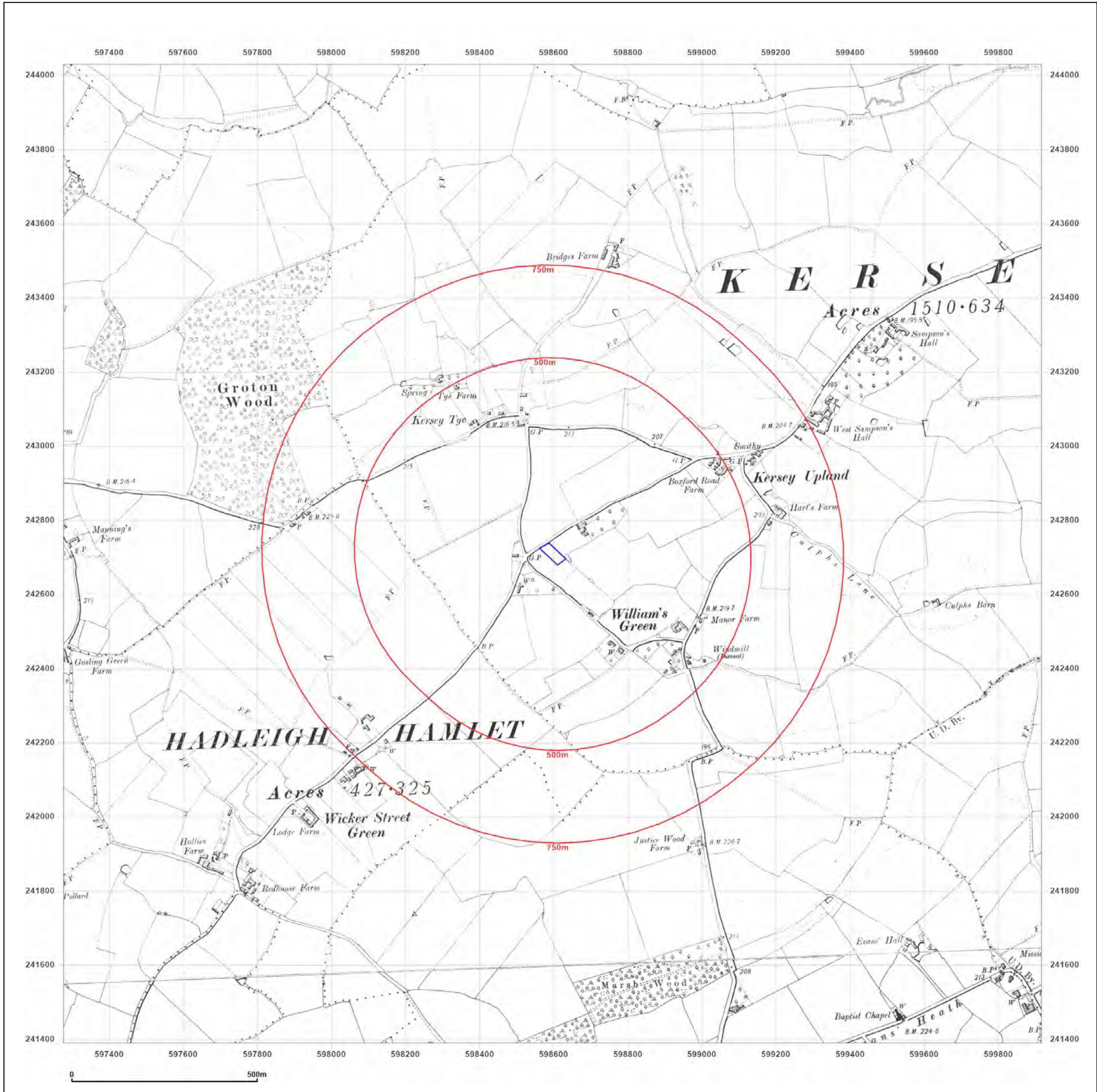


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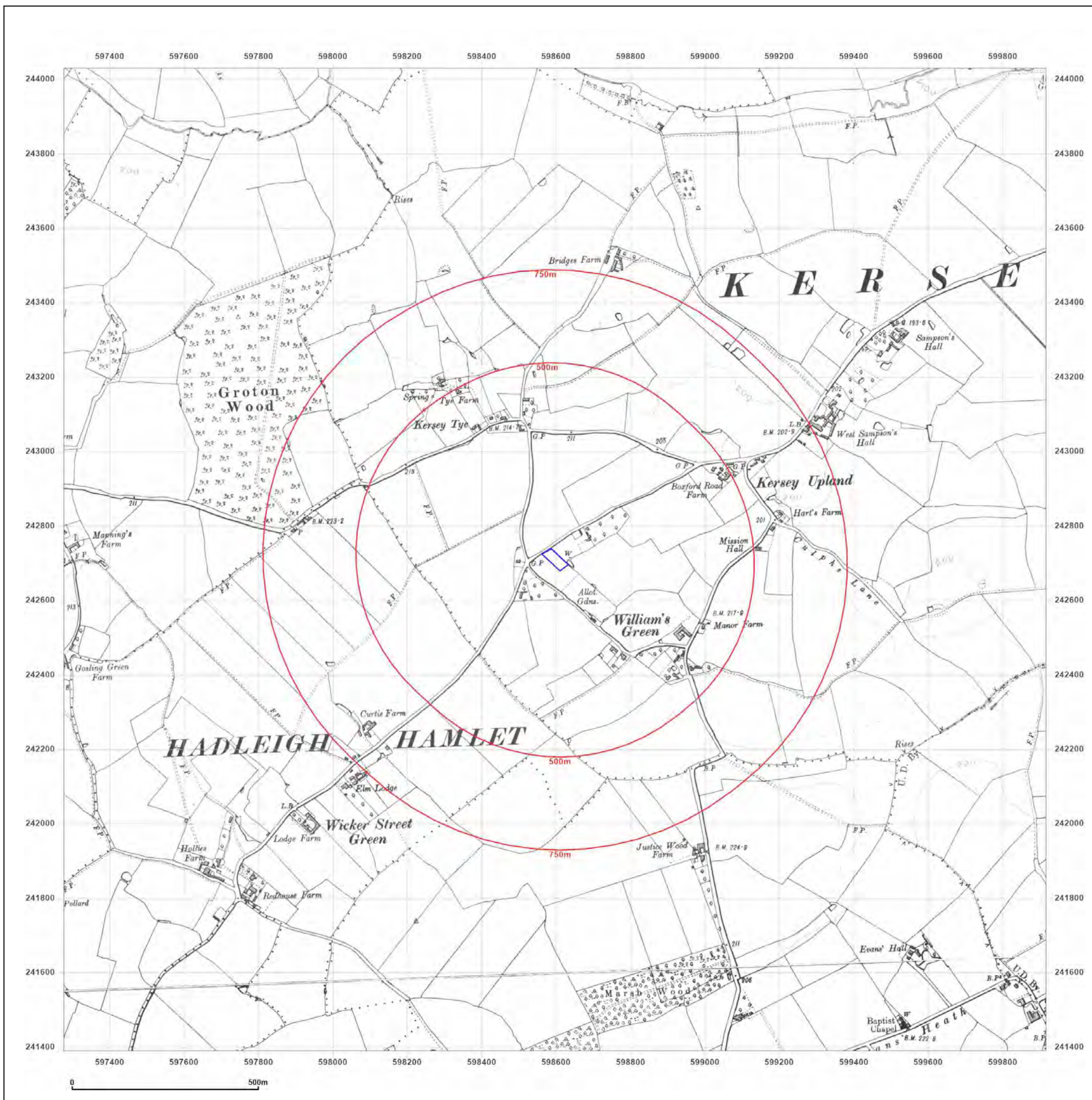


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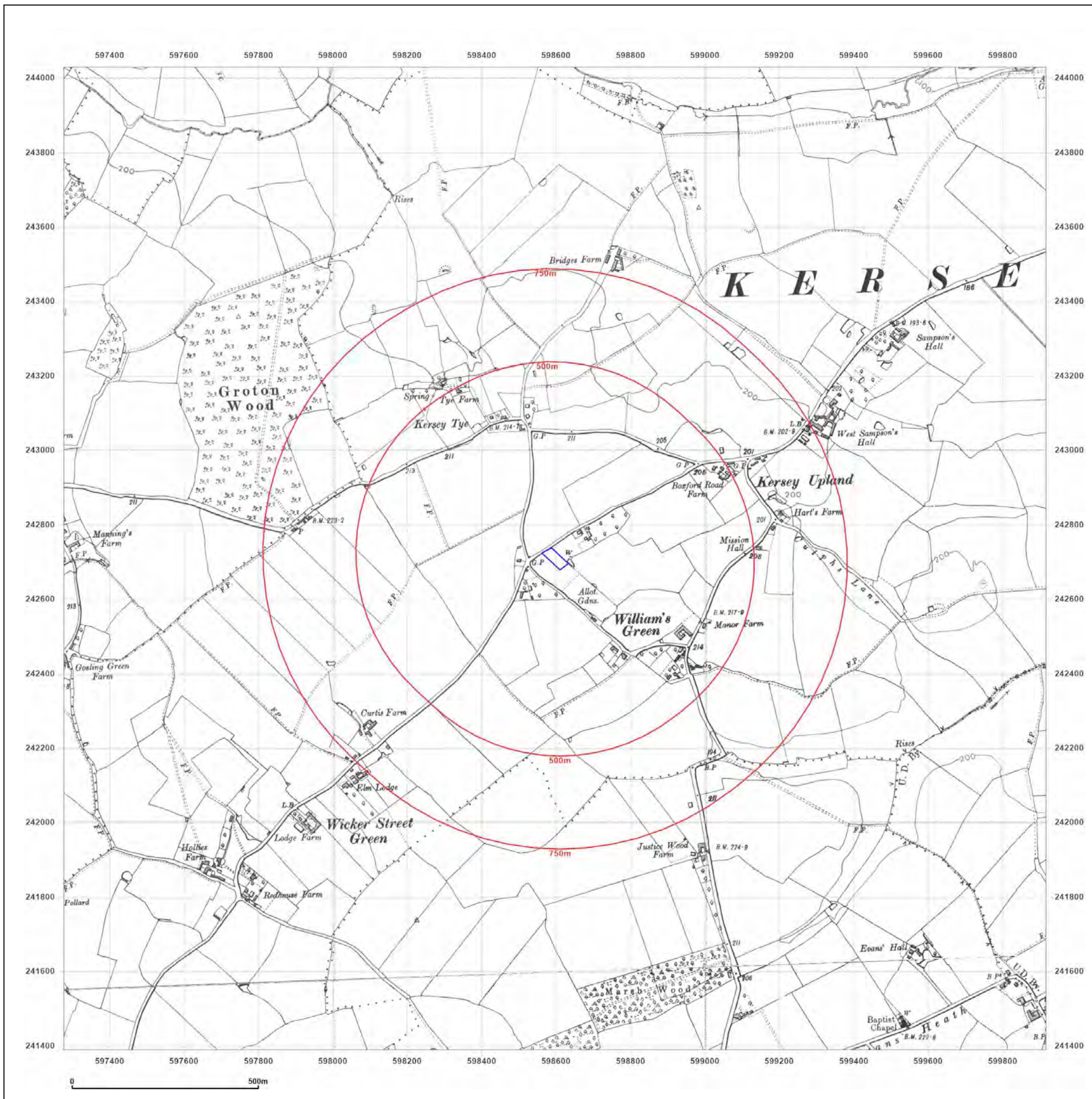


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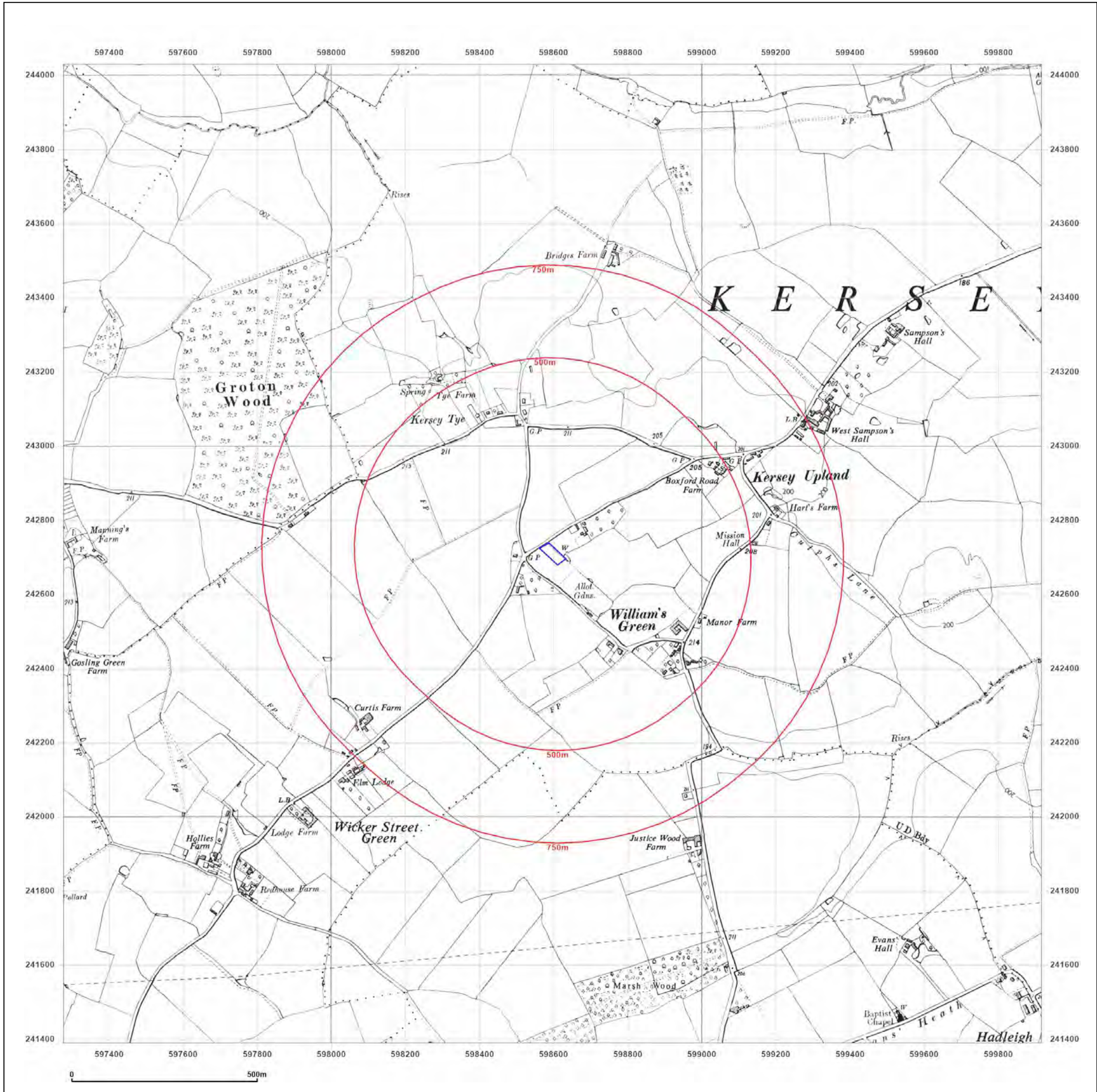


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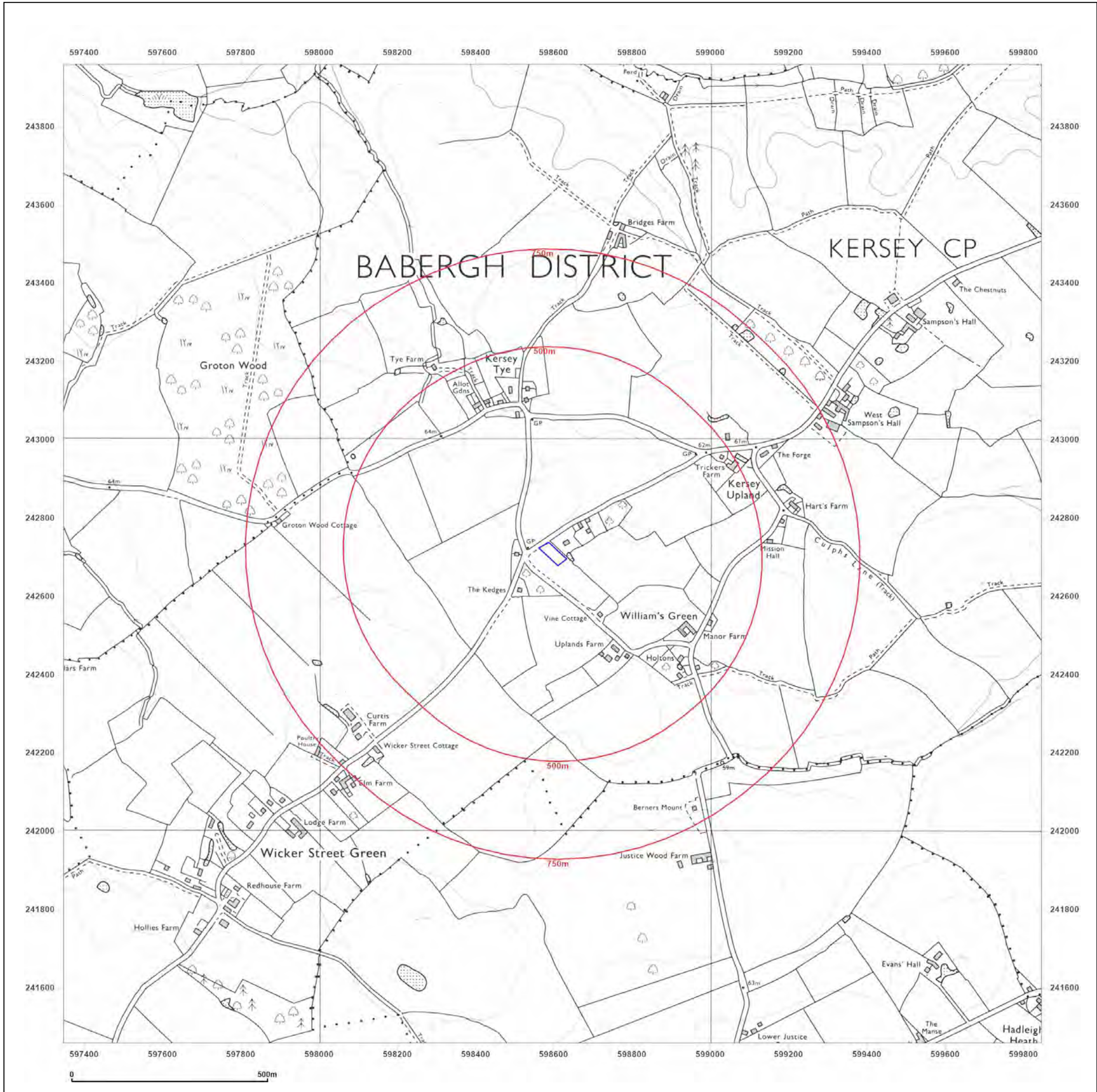


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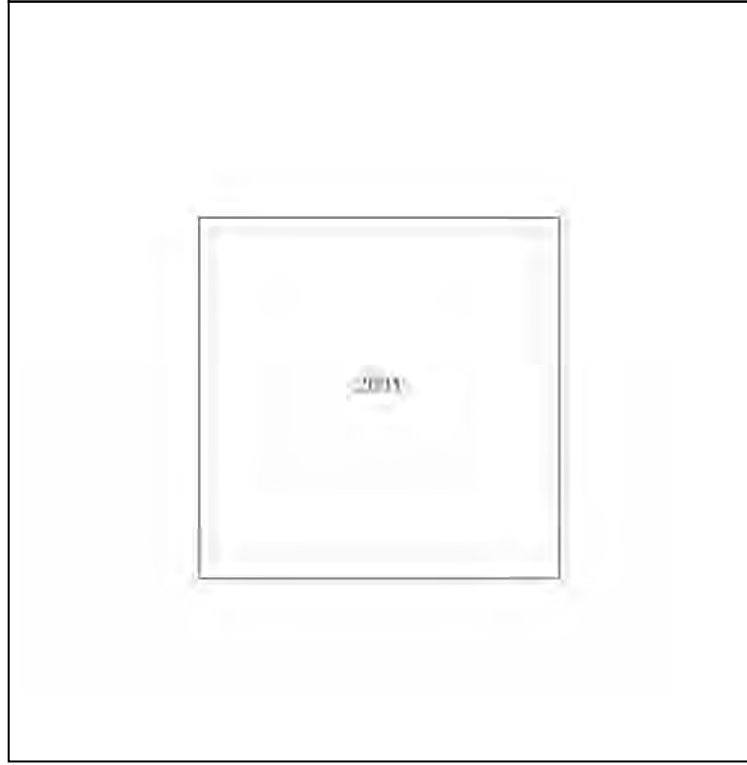
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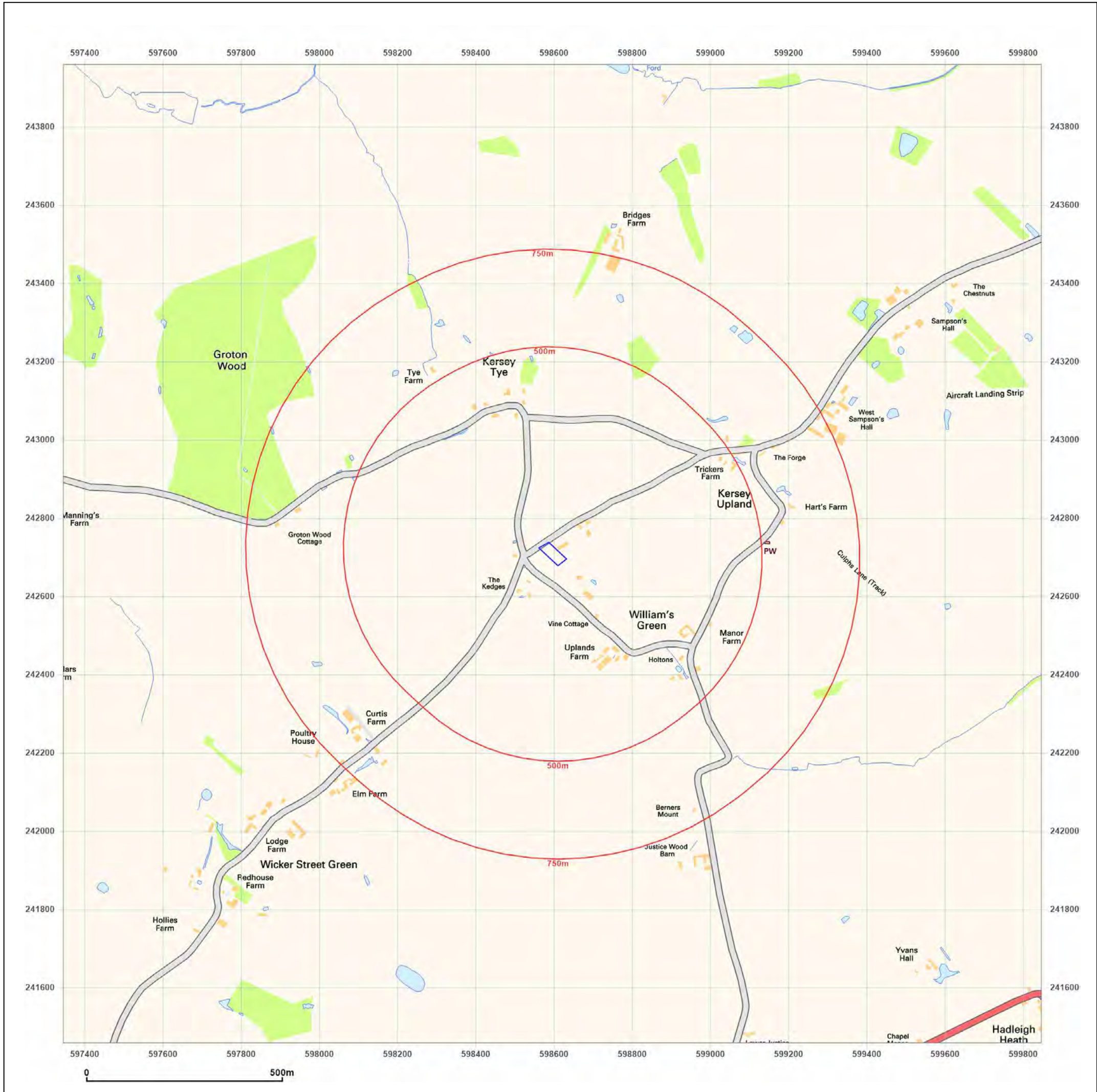


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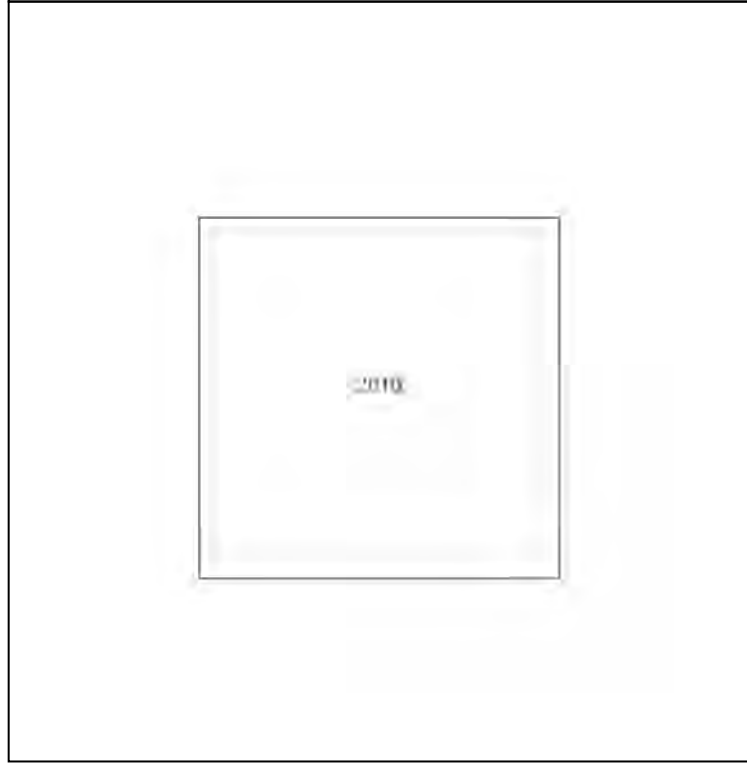
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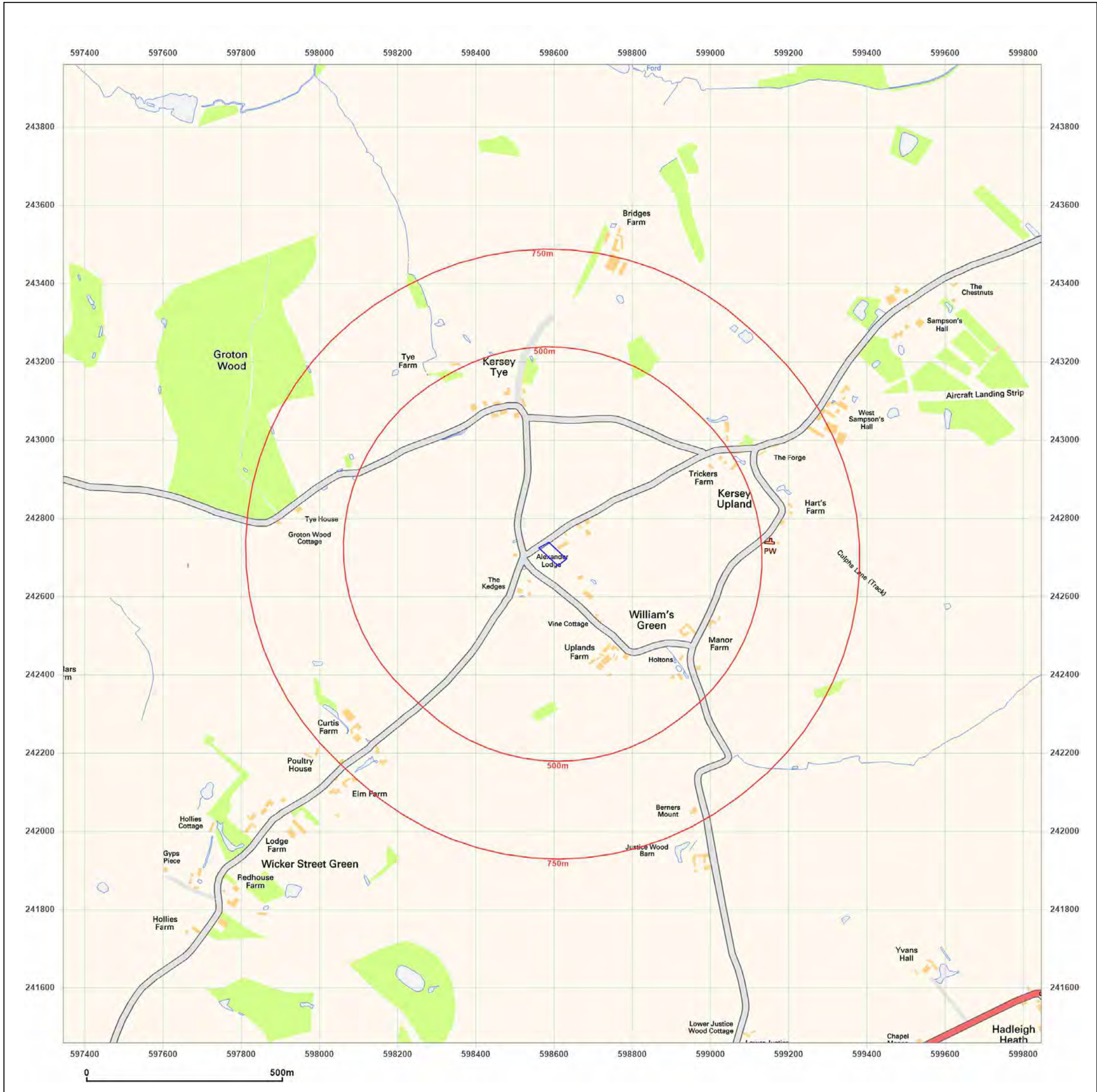


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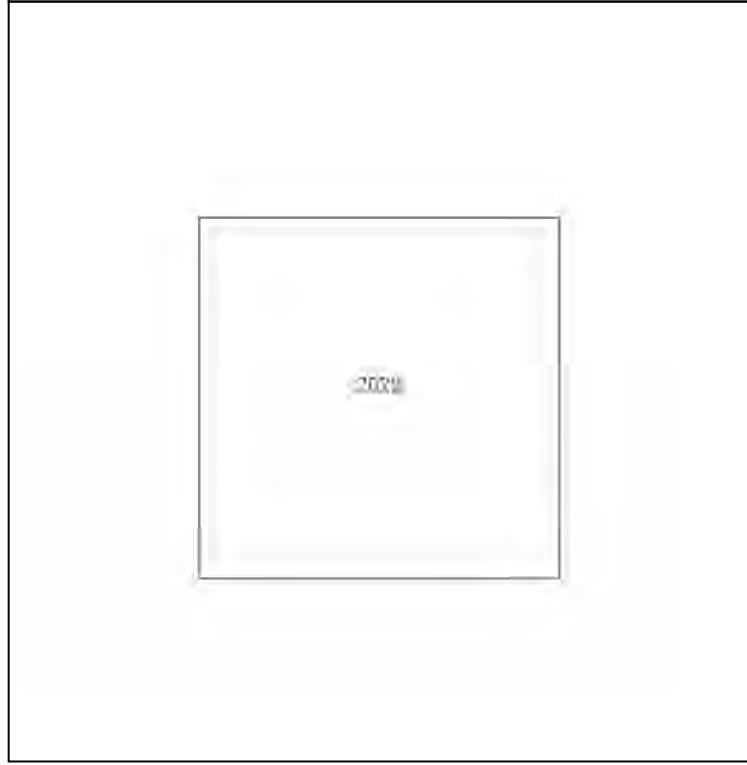
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