



CKConsulting
and Geotechnical

PRELIMINARY RISK ASSESSMENT

LAND OFF COWARDS LANE, CODICOTE
For
HAWRIDGE STRATEGIC LAND LTD

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EXECUTIVE SUMMARY

CK Consulting and Geotechnical (CK C&G) has been commissioned by Hawridge Strategic Land Ltd to carry out a Phase 1 Preliminary Risk Assessment (PRA) for a site located at land off Cowards Lane, Codicote, SG4 8UW. This report has been produced to evaluate the potential risks to human health and the environment as well as to identify potential environmental constraints associated with the proposed works. CK C&G are yet to see a proposed development plan.

The site comprises one sloped pasture fields, used for grazing horses with a stable building in the western corner. The site is set out over an area of about 1.3 hectares (ha).

The historical maps dating back to 1878 showed that the site has changed very little over the last c.150 years. With a small stable building now present in the west of the site.

The ground conditions are anticipated to comprise superficial deposits of Lowestoft Formation (Glacial clays) over a bedrock of the Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated) across the entire site. The Lowestoft Formation is designated as a Secondary undifferentiated aquifer, the chalk is a Principal aquifer and the site is in a Source Protection Zone 2 – Outer Catchment.

Based on the current and historical uses of the site and the surrounding area there is considered to be a very low to low risk of contamination affecting the site.

There are limited potential source-pathway-receptor linkages that may affect the site, and no further assessment is considered necessary for this type of development. Should the development change reassessment, may be required.

1. INTRODUCTION

CK Consulting and Geotechnical (CK C&G) has been commissioned by Hawridge Strategic Land Ltd to carry out a Phase 1 Preliminary Risk Assessment (PRA) for a site located on land off of Cowards Lane, Codicote, SG4 8UW . A walkover survey of the site was undertaken on the 1st April 2025 and the site comprises a single pasture field, used for grazing horses, with a stable building in the western corner of the site. The site is set out over an area of about 1.3 hectares (ha), as shown in Figure 1.

The objectives of this study were to:

- Establish the historical/current uses of the subject site and adjacent land including any areas located within a 250m radius of the subject site that have been used for heavy industry/landfill disposal purposes;
- Determine the environmental setting of the land as characterised by:
 - i. Geology;
 - ii. Hydrogeology;
 - iii. Hydrology;
 - iv. Licensed waste management activities;
 - v. Pollution controls and authorisations;
 - vi. Historical pollution incidents;
 - vii. Radon hazards; and
 - viii. Ecosystem designations.
- Comment on the potential for contamination of the soil and water environment in contact with the subject site arising from the proposed end use, surrounding land or as the result of other factors; and
- Identify the potential human health and environmental risks that may be associated with the subject site considering past, current and planned future uses of the land and its environmental setting.

Assessment of the risks that may be associated with potentially contaminated land are generally undertaken on a phased or tiered basis, in accordance with current UK policy and technical guidance given in Land Contamination Risk Management (2024) and British Standard BS10175 A1:2013 “Investigation of Potentially Contaminated Sites – Code of Practice” as well as other relevant documents.

The Preliminary Risk Assessment is a qualitative judgement about the potential human health and environment risks that may be related to a site and represents only the first of the three phases outlined above, but it may make recommendations with respect to the subsequent phases.

This PRA report is based upon a defined programme of work and terms and conditions agreed with the Client. In preparing this report, all reasonable skill and care has been taken, accounting for project objectives, agreed scope of work and prevailing site conditions. CK C&G accepts no liability to any parties whatsoever, following the issue of this report, for any matters arising outside the agreed scope of works. It should be noted that this report is issued in confidence to the Client and that CK C&G has no responsibility to any third parties to whom this report may be circulated, in part or in full and any such parties cannot rely on the contents of the report. Unless specifically assigned or transferred within the terms of the agreement, CK C&G asserts and retains all Copyright and other Intellectual Property Rights, in and over the report and its contents.

2. SITE LOCATION AND DESCRIPTION

2.1 Site Location

The site is located on land located off Cowards Lane, Codicote, SG4 8UW and is centred on grid reference 521595E 217810N. The site comprises one paddock used for grazing horses, with one stable building in the west of the site. The site is set out over an area of about 1.3 hectares (ha), as shown in Figure 1 below.

A copy of a Site Boundary Plan is available in Appendix A.



Figure 1: Site location. Land off Cowards Lane, Codicote. Photograph capture Date: 5th August 2022. (Reproduced with permission from Groundsure.)

2.2 Site Description and Walkover

The site description provided below is based on the available maps and a walkover survey undertaken by a CK C&G engineer on the 1st April 2025. Photographs from the site walkover are included in Appendix B.

The site is irregularly shaped and accessed via Cowards Lane to the northern corner of the site, between Field House and Marlin House. The site is a pasture field, currently used for grazing horses, with a small wooden stable building in the western corner. The level of the site slopes down from the western corner of the site at about 101m OD to about 93m OD to the east.

There is a public footpath that dissects the site from north to south.

The site is bordered to the north, northwest and northeast by residential dwellings and to the south by agricultural land. The boundaries are marked with either a wooden or barbed wire fence to the north and by hedgerow to the south.

2.3 Proposed Development

CK C&G are yet to see a proposed development plan. However, it is assumed for the purpose of this report that the development will include residential properties with associated infrastructure.

3. HISTORICAL DEVELOPMENT

3.1 Sources of Information

The history of the site has been traced from available Ordnance Survey maps dating from 1881 to 2025, as provided by Groundsure. These maps were produced on scales ranging from 1:2,500 to 1:10,560 and are included in Appendix C.

The following sources of information have been used in the production of this report:

- Groundsure. Enviro+Geo Insight, Cowards Lane, Codicote (2025). Ref: GS-QED-OB-3E1-CQM.

3.2 Site History

The earliest available maps of the site dated from 1881 to 1881 and showed the site to be open fields, with a footpath identified, as observed during the 2025 walkover survey. The site is bordered by trees. Cowards Lane is present to the north, and beyond that is an area marked as 'Labor in Vain Charity'. Allotment Gardens are located about 175m to the northeast. Two wells are noted, one at Rose Cottage, located about 50m to the north of the site and the other about 300m to the northeast. Several ponds are noted about 200m to the north of the site.

By the time of the publication of the 1898-1899 maps there was a building constructed next to the northern boundary. There was a chalk pit noted on the map about 500m to the east of the site. The site itself appeared unchanged.

The 1924-1925 maps showed the building adjacent to the site to the north had reduced in size. The chalk pit was no longer shown. A Saw mill was labelled about 150m to the north of the site and a Septic Tank was shown about 400m to the northeast. The Labour in Vain Charity area was marked as Recreation Ground.

By 1937 residential dwellings had been constructed alongside the site to the northeast and by 1947 there appeared to be a form of excavation/mining that had taken place about 600m to the southeast of the site. In 1964, the maps showed very little change other than the Septic Tank was no longer shown.

By 1972-1975, the excavation/mining to the south was marked as a Lime Quarry and it extended to the north to within about 450m of the site. Two houses either side of the entrance to the subject site had been constructed and the Saw Mill was noted as a Garage. The Ridings residential properties had been constructed alongside the northeastern boundary of the site. There were also some 'Works' located about 200m to the north of the site.

In 1990-1992, the garage had been replaced by housing. There were ponds located about 25m to the south of the site. There were no significant changes to maps until the issue of more recent maps whereupon the Lime Quarry was no longer noted.

The historical maps are available in Appendix C.

4. GROUND CONDITIONS

4.1 Geology

Reference to the publications of the British Geological Survey (BGS)¹ website indicates that the entire site is underlain by the Lowestoft Formation superficial deposits, which are recorded as comprising clays. This is underlain by the Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated). Descriptions of the anticipated geological sequences are shown in Table 4.1 below.

Table 4.1. Summary of Stratigraphical Layers.

Stratigraphical Layer	Strata Name	Description	Location Across Site
Superficial	Lowestoft Formation	Glacial clays	Entire site
Bedrock	Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated)	Chalk	Entire site at depth.

According to the BGS Geo-Index records and the Groundsure report there is a single borehole located on the site (Ref. TL21 NW/4).

The historical on-site borehole log showed soil to 0.3m, gravelly clay with occasional thin sand bands to 9.8m, 'clayey' sand and then gravel to a depth of 12m below ground level (bgl). From 12m the Upper chalk [Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated)] was encountered and proved to 12.2m. Copies of this exploratory hole log is included in Appendix D.

Table 4.2. Summary of Onsite Boreholes

Location	BGS Reference	Grid reference	Name	Depth (m)
On-site	TL21 NW/4	521650,217820	Codicote Village	12.2

4.2 Hydrogeology and Hydrology

4.2.1 Aquifer Designation

The Environment Agency (EA) has produced an aquifer designation system consistent with the requirements of the Water Framework Directive. The designations have been set for superficial/bedrock geology and are based on the importance of aquifers for potable water supply as well as the role that these features play in supporting surface water bodies and wetland ecosystems.

¹ British Geological Survey (BGS), www.bgs.ac.uk [Accessed January 2025]

The aquifer status of groundwater held on the site within the superficial and the bedrock geologies are described below in Table 5.

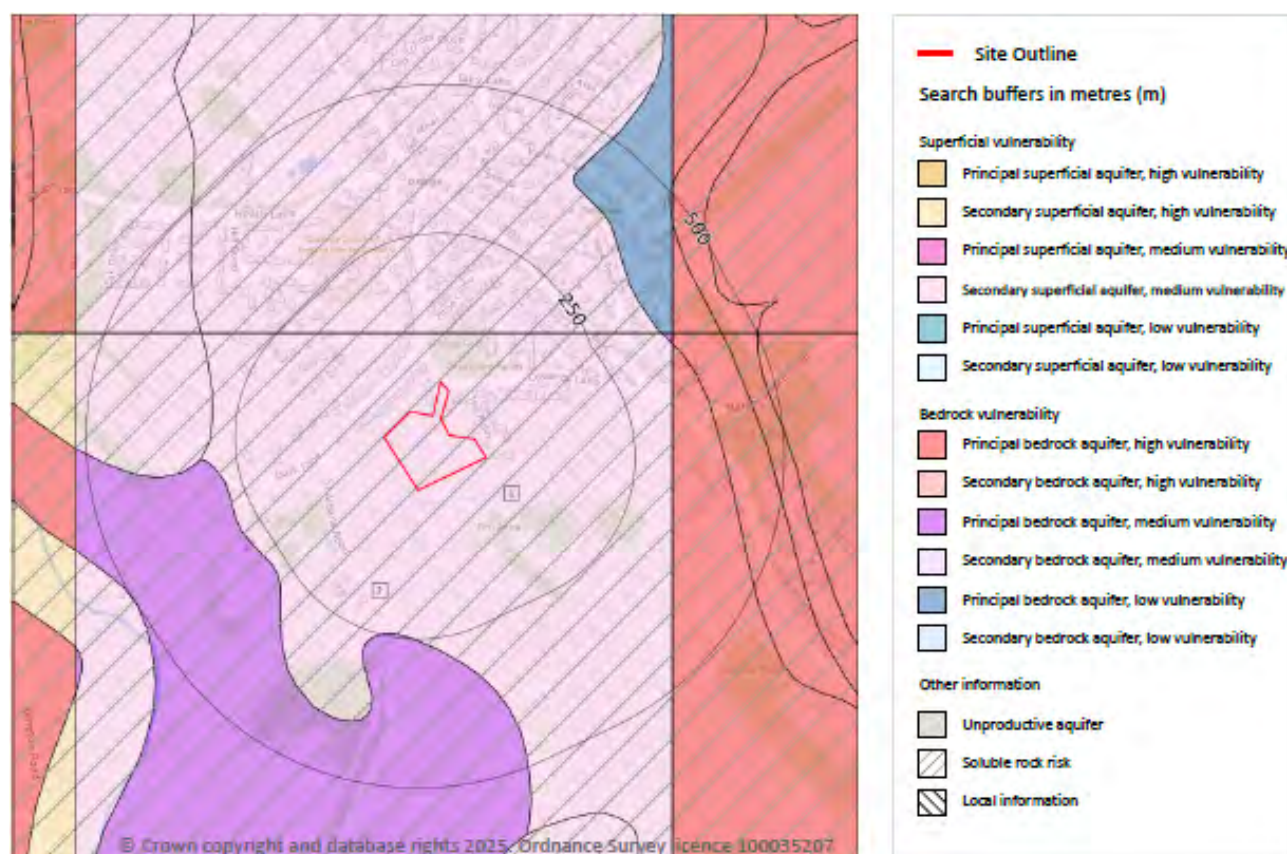
Table 4.3. The aquifer status of groundwater.

Aquifer	Location	Designation	Description
Lowestoft Formation	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.
Lewes Nodular Chalk Formation and Seaford Chalk Formation (undifferentiated)	On site	Principal aquifer	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.

4.2.2 Groundwater Vulnerability

Groundwater vulnerability across the site is designated as a “*Secondary superficial aquifer - Medium Vulnerability*”. Combined classification: “*Productive Bedrock Aquifer, Productive Superficial Aquifer*”, as displayed in the map extract Plate 1.

Plate 1. Groundwater vulnerability Map Extract



4.2.3 Groundwater Source Protection Zone (SPZ)

There are two groundwater Source Protection Zones (SPZ) listed within 500m of the site. One is located on the site and is in a Zone 2 Outer catchment. The second is a Zone 1 Inner Catchment, located about 170m to the south of the site.

4.2.4 Groundwater Abstraction Licences

The Groundsure report records four active groundwater abstraction licence within 2000m of the site: three for potable water supplies from the chalk and one for horticultural watering. The closest active location is about 600m to the southwest and is for Affinity Water Limited. The licence originally started on 20th September 1966 with an annual volume of about 240,000 cubic metres.

4.2.5 Surface Water Features and Water Framework Directive (WFD)

There are three surface water features listed in the Groundsure report as being within 250m of the site. These relate to features on a stream about 25m to the south of the site.

The site is listed as falling within a Water Framework Directive (WFD) surface water body catchment area. The WFD 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. The details of WFD surface water body catchments is provided below in Table 4.4.

Table 4.4. WFD Surface Water Body Catchment

Location	Type	Water Body Catchment	Water Body ID	Operational Catchment	Management Catchment
On-site	River	Mimram (Codicote Bottom to Lee)	GB106038033270	Lee Upper	Lee Upper

Surface water bodies under the WFD 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. Groundwater bodies are also covered by the WFD and the same regime of objectives.

There is one WFD groundwater body listed in the Groundsure report and the details are provided in Table 4.5 below.

Table 4.5. WFD Groundwater Bodies.

WFD Water Body	Location	Type	Name	Water Body ID	Overall Rating	Chemical Rating	Quantitative	Year
WFD Groundwater body	Onsite	Groundwater body	Upper Lee Chalk	GB40601G602900	Poor	Poor	Poor	2019

4.2.6 Flooding

The Groundsure report indicates that the risk of surface water flooding is negligible and equates to a less than 1 in 1000 year event over the site. There is a low chance of groundwater flooding over the site.

4.3 Mining and Ground Workings

4.3.1 BritPits

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. There are three records in the BritPits database within 500m of the site. These are detailed in Table 4.6 below:

Table 4.6: BritPits Database

Location	Name	Commodity	Surface or Underground	Status
277m S	First Spring Pit	Chalk	Surface working	Ceased
355m SW	Three Hills Pit	Chalk	Surface working	Ceased
494m SW	Codicote Quarry	Chalk	Surface working	Ceased

4.3.2 Surface Ground Workings

The Groundsure report notes two surface ground workings are recorded within 250m of the site. These are 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. It is not known what quantities were extracted or if any backfill/landfilling activities subsequently took place. The features listed on the Groundsure report are set out in Table 4.7 below:

Table 4.7: Surface ground workings

Location	Land Use	Year of mapping
146m N	Pond	1884
152m N	Pond	1922-1946

4.3.3 Non-Coal Mining

A total of two non-coal mining activities have been listed on the Groundsure report within 1000m of the site. One of these have been listed as being on the site for the commodity of chalk and listed as class A.

The other non-coal mining activity was also listed as being for the commodity of chalk and as class A, located about 625m to the southwest.

Class likelihood definitions are provided below:

- Class A: “Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.”
- Class B: “Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.”
- Class C: “Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.”

4.3.4 Mining Cavities

There is a record of a single mining cavity being present within 1000m of the site. The mining cavity was for chalk and is located about 300m to the north of the site.

4.3.5 Other mining

There have been no underground workings, underground mining extents, historical mineral planning areas, Johnson Poole and Bloomer mining areas, Coal Authority non-coal mining, researched mining, historical mineral planning areas, mining record office plans, BGS mine plans, coal mining, brine areas, gypsum areas, tin mining or clay mining locations noted on the Groundsure report.

4.4 Ground Hazards

The risks associated with potential hazards have been assessed using the Groundsure report.

Table 4.8. Geological Hazards.

Hazard	Risk	Details
Shrink-swell clays	Low	Ground conditions predominantly non-plastic.
Landslides	Very low	Slope instability problems are not thought to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.
Ground Dissolution	Very low	Few dissolution features are likely to be present.
Compressible Deposits	Negligible	Compressible strata are not thought to occur.
Collapsible Deposits	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
Running Sands	Very low	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

4.5 Estimated Background Soil Chemistry

The estimated chemistry of possible topsoil provides the likely background concentration of potentially harmful elements such as arsenic, cadmium, chromium, lead and nickel. These values are estimated using data collected primarily from rural topsoil at a sample density of about 1 per 2km². Where rural soil samples are unavailable, data is collected from stream sediments at a sampling density of 1 per 2.5km². The stream sediment data are converted to soil-equivalent concentrations prior to the estimation. The estimated topsoil chemistry is included in Table 4.9 below:

Table 4.9. Geochemical baseline values

<i>Location</i>	<i>Arsenic (mg/kg)</i>	<i>Bioaccessible Arsenic (mg/kg)</i>	<i>Lead (mg/kg)</i>	<i>Bioaccessible lead (mg/kg)</i>	<i>Cadmium (mg/kg)</i>	<i>Chromium (mg/kg)</i>	<i>Nickel (mg/kg)</i>
On-site	15-25	No data	100	60	1.8	60 - 90	15 - 30

None of the estimated topsoil chemistry values that are shown in Table 9 exceeded Human Health Generic Assessment Criteria (GAC) for residential with home-grown produce end use.

5. ENVIRONMENTAL SETTING

5.1 Landfill, Potentially Infilled Land and Other Waste Sites

There are two historical landfills within 500m of the site noted in the Groundsure report. This information is sourced from Local Authority records and the Environment Agency. The closest site was located about 350m to the west of the site at Three Hills Pit, Heath Lane, Codicote and accepted inert and industrial waste from January 1980 to April 1993. The other record was located about 500m to the east at Sisserversness Hill Pit. There is no further information available for the latter record.

The locations of the historical landfill and waste exemptions are presented in Plate 5.1 below:

Plate 5.1: Locations of the historical landfill and waste exemptions.



5.2 Control of Major Accident Hazard (COMAH), Notifications of Installations Handling Hazardous Substances

There are no 'control of major accident hazard' (COMAH) listed on the site or within a 500m radius of the site.

5.3 Pollution Incidents and Discharge Consents

There are two licensed discharges to controlled water within 500m of the site. The closest is located at about 200m to the southwest of the site. Details of the licensed discharges are listed below in Table 5.1.

Table 5.1. Licensed Discharges to Controlled Waters

Location	Address	Effluent Type	Receiving Water	Status	Issue date	Effective Date	Revocation Date
About 200m SW	The Small Holding, St Albans, Codicote	Sewage Discharges - Final/Treated Effluent - Not Water Company	-	Transferred from WRA 1991	18/02/1981	18/02/1981	-
About 250m W	Three Hills, Dark Lane, Codicote, Herts, SG4 8UZ	Sewage Discharges - Final/Treated Effluent - Not Water Company	Land via borehole	New consent (WRA 91, S88 & Sched 10 as amended by Env Act 1995)	28/10/2003	28/10/2003	-

5.3.1 Pollution Incidents

There is a single recorded pollution incidents within 500m of the site. This was located about 150m to the southwest of the site and involved household waste on 24th April 2002. It was a Category 3 Land impact.

5.3.2 Sites determined as Contaminated Land

There is a single record of a site being determined as contaminated land under Part 2a of the Environmental Protection Act 1990. It was located about 110m to the north at 11 Tithe Close, Codicote and involved the excavation of hydrocarbon contamination and reinstatement with clean subsoil and topsoil. This remediation was undertaken in September 2008.

5.4 Environmental Designations

There are no Local Nature Reserves (LNR) or ancient woodland recorded within 500m of the site.

Land designated to prevent urban sprawl by keeping land permanently open are designated as “Green Belt” areas. The Groundsure report notes a green belt area on the site. It is referred to as the “London Green Belt” and is listed as falling under the authority of North Hertfordshire.

The site is also located in a Nitrate Vulnerable Zone.

Details of environmental designation areas are shown on Plate 5.2 below.

Plate 5.2. Environmental Designations



Sites of Special Scientific Interest (SSSI) Impact Risk Zones were developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. These define zones around each SSSI that reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal that could potentially have adverse impacts. The site is within two SSSI Impact Risk Zone and page 71 of the Groundsure report should be referred to for full details. The Groundsure report is available in Appendix C.

The village of Codicote, about 200m to the north is designated as a conservation area.

The site and surrounding area are given an agricultural designations. The site was given a Grade 3 Agricultural Land Classification that is described as *“Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2”*.

There is a single priority habitat listed within 250m of the site that is listed as deciduous woodland and located 85m to the southeast of the site.

5.5 Radon

The Groundsure report (Appendix C) has identified that less than 1% of properties are above Action Level. Therefore, in line with BRE Report BR 211² no radon protective measures are required.

² Scivyer, C. and Jaggs, M. (2023). Radon: Guidance on protective measures for new buildings (including supplementary advice for extensions, conversions and refurbishment projects) 2023 edition. Sixth edition 2023 ed. BRE Electronic Publications.

6. PRELIMINARY RISK ASSESSMENT

6.1 Introduction

Historical contamination of land may present harm to human health and the environment. Current UK legislation stipulates that the risk associated with potential land contamination is assessed and remediated, if deemed necessary. Under the Town and Country Planning Act 1990 (as amended), potential land contamination is a "*material planning consideration*" together with the National Planning Policy Framework (July 2018), which means that a planning authority must consider contamination when preparing development plans or considering individual applications for planning permission. It is the responsibility of the developer to carry out the remediation, where it is required and satisfy the Local Authority that the remediation has been carried out as agreed.

Additionally, Part 2A of the Environmental Protection Act 1990 requires that a significant source-pathway-receptor linkage exists to determine a site as contaminated land. This means that there must be a contaminant present, a receptor that could be harmed by this contaminant and a pathway linking the two. Part 2A deals with the contamination risk from a site's current use however the planning system requires that the proposed use must be considered. Where remediation is carried out under the planning system, it should be ensured that the site is in such a condition that it would still not meet the definition of contaminated land under Part 2A.

6.2 Initial Conceptual Site Model

An initial conceptual model has been compiled for the site with respect to the proposed new residential buildings and associated roads/pathways to identify the potential sources of contamination and the associated potential pollutant linkages. This model also informs the potential need for further investigation at the site. For receptors to be exposed to sources of contamination, an appropriate migration pathway must be in place to complete a source – pathway – receptor linkage.

6.2.1 *Potential Sources*

Potential contamination sources may include both current and historical on-site activities and those in the surrounding area. The following potential sources have been identified at the site:

On-site

- **Farming activity:** pesticides and herbicides associated with farming activities.
- **Construction of stable building:** polycyclic aromatic hydrocarbons (PAH), petroleum hydrocarbons, metals/metalloids and asbestos.

Off-site

- **Historical Saw Mill to the north:** metals/metalloids, polycyclic aromatic hydrocarbons (PAH), petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylenes (BTEX) and asbestos.
- **Historical contaminated land designation to the north:** petroleum hydrocarbons, benzene, toluene, ethylbenzene and xylenes (BTEX).
- **Neighbouring construction activities:** metals/metalloids, polycyclic aromatic hydrocarbons (PAH), petroleum hydrocarbons, benzene, toluene, ethylbenzene, xylenes (BTEX) and asbestos.

6.2.2 Potential Pathways

The potential migration pathways that may be present on the site include:

- Direct contact by site users - dermal contact, ingestion and inhalation of dust.
- Plant uptake.
- Overland flow into the off-site ponds.
- Infiltration with lateral and vertical migration.
- Ground gas and vapour migration through soils or groundwater to indoor air.

6.2.3 Potential Receptors

Based upon the identified area, the main receptors at the site are considered to be:

- Human health – site end users.
- On-site buildings and neighbouring properties.
- Controlled waters: the surrounding aquifers are potentially a receptor from contamination originating on the site.

6.3 Preliminary Qualitative Risk Assessment

A preliminary qualitative risk assessment has been undertaken based on the findings of the conceptual site model and the potential pollutant linkages that may exist at the site in accordance with Environment Agency (EA) guidance³. Using criteria broadly based on those presented in CIRIA Report C552⁴, the

³ Environment Agency (2020) Land Contamination Risk Management (LCRM). 8 October 2020. Accessed Online: <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

⁴ CIRIA (2001) Contaminated Land Risk Assessment. A guide to good practice. C552.

magnitude of the risk associated with potential pollutant linkages has been assessed and summarised below in Table 13. The risk assessment methodology is presented in Appendix E.

Table 6.1. Preliminary Qualitative Risk Assessment

Potential Source	Potential Exposure Route	Potential Receptor	Severity	Probability	Risk Rating	Comments
On Site						
Contaminants in the soils/groundwater associated with the historical farming use – Pesticides or herbicides	Dermal contact/ingestion/inhalation	Human health/Site users	Minor	Unlikely	Very low risk	Due to pasture usage it is unlikely any pesticides or herbicides were used on site and if they were the quantities would be low
	Overland flow	Controlled waters	Minor	Unlikely	Very low risk	
	Lateral and vertical migration	Controlled waters	Minor	Unlikely	Very low risk	
Contaminants associated with the construction of the stable building	Dermal contact/ingestion/inhalation	Human health/Site users	Minor	Unlikely	Very low risk	Low risk due to the age of the works and extent of the works.
	Overland flow	Controlled waters	Minor	Unlikely	Very low risk	Overland flow is unlikely due to the age of the historical contamination.
	Lateral and vertical migration	Controlled waters	Minor	Unlikely	Very low risk	Low risk due to the age of the works and extent of the works.
Asbestos fibres from insulation or asbestos containing materials (ACM) in the soils associated with farming use or the stable building	Inhalation of fugitive dust.	Human health/Site users and site neighbours	Medium	Unlikely	Low Risk	The age of the backfill predates the height of asbestos use and the amounts required are not likely to be high.
Off Site						
Contaminants in the soils/groundwater associated with the historical saw mill to the north.	Dermal contact/ingestion/inhalation	Human health/Site users	Minor	Unlikely	Very low risk	Low risk due to the age and time since the existence of the source.
	Overland flow	Controlled waters	Minor	Unlikely	Very low risk	
	Lateral and vertical migration	Controlled waters	Minor	Unlikely	Very low risk	
Contaminants from the historical contaminated land designation	Dermal contact/ingestion/inhalation	Human health/Site users	Minor	Unlikely	Very low risk	Remediation was completed 18 years ago over 100m to the north.
	Overland flow	Controlled waters	Minor	Unlikely	Very low risk	
	Lateral and vertical migration	Controlled waters	Minor	Unlikely	Very low risk	
Neighbouring construction activities	Dermal contact/ingestion/inhalation	Human health/Site users	Minor	Unlikely	Very low risk	No visual evidence of any construction activities affecting the site.
	Overland flow	Controlled waters	Minor	Unlikely	Very low risk	
	Lateral and vertical migration	Controlled waters	Minor	Unlikely	Very low risk	

6.4 Climate Change

Following the guidance set out in “Managing and reducing land contamination: guiding principles (GPLC2) FAQ 8⁵” (Environment Agency, 2010), and the National Planning Policy Framework (NPPF)⁶ (Ministry of Housing, Communities & Local Government, 2024), there is a requirement to consider the effects of future climate change within each risk assessment.

Based on the site information, it is considered that increased rainfall events in the winter and longer dry spells would have a limited impact on the conceptual model at the site and would not alter any of the conclusions.

⁵ GPLC2 – FAQs, technical information, detailed advice and references. (2010). [online] Environment Agency . Available at:
<https://claire.co.uk/useful-government-legislation-and-guidance-by-country/192-guiding-principles-for-land-contamination-gplc>

⁶ National Planning Policy Framework . (2024). [online] Ministry of Housing, Communities and Local Government . Available at:
<http://www.gov.uk/mhclg>.

7. CONCLUSIONS

The report has been produced to evaluate the potential risks to human health and the environment in relation to the proposed development on the site.

Risk assessment indicates that potential risks for the site are typically low to very low. This is due to the site being a pasture field for at least 150 years and any potential sources being located either too far away or downstream from the site.

7.1 Recommendations

Based on the findings of this report, no further assessment is required. However, a discovery strategy is recommended during the development phase to allow the management of unexpected contamination.

In addition, it is likely that a ground investigation will be required for geotechnical purposes to allow for design of the proposed development.

APPENDIX A

SITE BOUNDARY PLAN



APPENDIX B

SITE WALKOVER PHOTOGRAPHS

SITE WALKOVER PHOTOGRAPHS



Photograph 1: View from the entrance of the field to the entrance of the site.



Photograph 2: View from the entrance of the field.

SITE WALKOVER PHOTOGRAPHS



Photograph 3: View along the northern boundary.



Photograph 4: View from the northern boundary to the south.

SITE WALKOVER PHOTOGRAPHS



Photograph 5: View of the stable building.



Photograph 6: View to the south of stable buildings.

SITE WALKOVER PHOTOGRAPHS



Photograph 7: View of the footpath in the southeastern corner.



Photograph 8: View of the southern footpath access to the site.

SITE WALKOVER PHOTOGRAPHS



Photograph 9: View towards the landfilled area.



Photograph 10: View towards the children's play area.

SITE WALKOVER PHOTOGRAPHS



Photograph 11: View towards the landfilled area.



Photograph 12: View towards the children's play area.

APPENDIX C

GROUNDSURE REPORT & MAPS

COWARDS LANE, CODICOTE, HERTFORDSHIRE, SG4 8UW

Order Details

Date: 01/04/2025
Your ref: GI-201
Our Ref: GS-QED-OB-3E1-CQM

Site Details

Location: 521595 217810
Area: 1.31 ha
Authority: [North Hertfordshire District Council](#) ↗



[Summary of findings](#)

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

[p. 9 >](#)

[OS MasterMap site plan](#)

[p.14 >](#) [Insight User Guide](#) ↗

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

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	0	0	1	6	-
16 >	1.2 >	Historical tanks >	0	0	0	4	-
16 >	1.3 >	Historical energy features >	0	0	3	16	-
17	1.4	Historical petrol stations	0	0	0	0	-
18 >	1.5 >	Historical garages >	0	0	5	7	-
18	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
19 >	2.1 >	Historical industrial land uses >	0	0	2	7	-
20 >	2.2 >	Historical tanks >	0	0	0	7	-
20 >	2.3 >	Historical energy features >	0	0	3	26	-
22	2.4	Historical petrol stations	0	0	0	0	-
22 >	2.5 >	Historical garages >	0	0	6	7	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
25 >	3.4 >	Historical landfill (EA/NRW records) >	0	0	0	2	-
25	3.5	Historical waste sites	0	0	0	0	-
26	3.6	Licensed waste sites	0	0	0	0	-
26 >	3.7 >	Waste exemptions >	0	0	1	2	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
27 >	4.1 >	Recent industrial land uses >	0	0	3	-	-
28 >	4.2 >	Current or recent petrol stations >	0	0	0	2	-
28	4.3	Electricity cables	0	0	0	0	-
28	4.4	Gas pipelines	0	0	0	0	-
28 >	4.5 >	Sites determined as Contaminated Land >	0	0	1	0	-



29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.7	Regulated explosive sites	0	0	0	0	-
29	4.8	Hazardous substance storage/usage	0	0	0	0	-
29	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
30	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30 >	4.11 >	<u>Licensed pollutant release (Part A(2)/B) ></u>	0	0	0	3	-
30	4.12	Radioactive Substance Authorisations	0	0	0	0	-
31 >	4.13 >	<u>Licensed Discharges to controlled waters ></u>	0	0	1	1	-
31	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
32	4.16	List 1 Dangerous Substances	0	0	0	0	-
32	4.17	List 2 Dangerous Substances	0	0	0	0	-
32 >	4.18 >	<u>Pollution Incidents (EA/NRW) ></u>	0	0	1	0	-
32	4.19	Pollution inventory substances	0	0	0	0	-
33	4.20	Pollution inventory waste transfers	0	0	0	0	-
33	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	<u>Hydrogeology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
34 >	5.1 >	<u>Superficial aquifer ></u>	Identified (within 500m)				
36 >	5.2 >	<u>Bedrock aquifer ></u>	Identified (within 500m)				
37 >	5.3 >	<u>Groundwater vulnerability ></u>	Identified (within 50m)				
38 >	5.4 >	<u>Groundwater vulnerability- soluble rock risk ></u>	Identified (within 0m)				
38	5.5	Groundwater vulnerability- local information	None (within 0m)				
39 >	5.6 >	<u>Groundwater abstractions ></u>	0	0	0	0	17
43 >	5.7 >	<u>Surface water abstractions ></u>	0	0	0	0	14
46 >	5.8 >	<u>Potable abstractions ></u>	0	0	0	0	13
49 >	5.9 >	<u>Source Protection Zones ></u>	1	0	1	0	-
50	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	<u>Hydrology ></u>	On site	0-50m	50-250m	250-500m	500-2000m
51 >	6.1 >	<u>Water Network (OS MasterMap) ></u>	0	3	9	-	-



53 >	6.2 >	Surface water features >	0	1	5	-	-
53 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
53 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
54 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
55	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
55	7.2	Historical Flood Events	0	0	0	-	-
55	7.3	Flood Defences	0	0	0	-	-
56	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
56	7.5	Flood Storage Areas	0	0	0	-	-
57	7.6	Flood Zone 2	None (within 50m)				
57	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
58 >	8.1 >	Surface water flooding >	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding >					
60 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
61	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
62	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
62	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
62	10.4	Special Protection Areas (SPA)	0	0	0	0	0
62	10.5	National Nature Reserves (NNR)	0	0	0	0	0
63 >	10.6 >	Local Nature Reserves (LNR) >	0	0	0	0	4
63 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	2
63	10.8	Biosphere Reserves	0	0	0	0	0
64	10.9	Forest Parks	0	0	0	0	0
64	10.10	Marine Conservation Zones	0	0	0	0	0
64 >	10.11 >	Green Belt >	1	0	0	0	1
64	10.12	Proposed Ramsar sites	0	0	0	0	0



65	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
65	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
65	10.15	Nitrate Sensitive Areas	0	0	0	0	0
65 >	10.16 >	Nitrate Vulnerable Zones >	1	0	0	0	2
67 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
68	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
69	11.1	World Heritage Sites	0	0	0	-	-
70	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
70	11.3	National Parks	0	0	0	-	-
70 >	11.4 >	Listed Buildings >	0	0	4	-	-
71 >	11.5 >	Conservation Areas >	0	0	1	-	-
71	11.6	Scheduled Ancient Monuments	0	0	0	-	-
71	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
72 >	12.1 >	Agricultural Land Classification >	Grade 3 (within 250m)				
73	12.2	Open Access Land	0	0	0	-	-
73	12.3	Tree Felling Licences	0	0	0	-	-
73 >	12.4 >	Environmental Stewardship Schemes >	0	0	2	-	-
73 >	12.5 >	Countryside Stewardship Schemes >	0	1	1	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
75 >	13.1 >	Priority Habitat Inventory >	0	0	1	-	-
76	13.2	Habitat Networks	0	0	0	-	-
76	13.3	Open Mosaic Habitat	0	0	0	-	-
76	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
77 >	14.1 >	10k Availability >	Identified (within 500m)				
78	14.2	Artificial and made ground (10k)	0	0	0	0	-
79	14.3	Superficial geology (10k)	0	0	0	0	-

79	14.4	Landslip (10k)	0	0	0	0	-
80	14.5	Bedrock geology (10k)	0	0	0	0	-
80	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
81 >	15.1 >	50k Availability >	Identified (within 500m)				
82	15.2	Artificial and made ground (50k)	0	0	0	0	-
82	15.3	Artificial ground permeability (50k)	0	0	-	-	-
83 >	15.4 >	Superficial geology (50k) >	1	0	0	2	-
84 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
84	15.6	Landslip (50k)	0	0	0	0	-
84	15.7	Landslip permeability (50k)	None (within 50m)				
85 >	15.8 >	Bedrock geology (50k) >	2	0	0	0	-
86 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
86	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
87 >	16.1 >	BGS Boreholes >	1	0	0	-	-
Page	Section	Natural ground subsidence >					
88 >	17.1 >	Shrink swell clays >	Low (within 50m)				
89 >	17.2 >	Running sands >	Very low (within 50m)				
90 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
91 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
92 >	17.5 >	Landslides >	Very low (within 50m)				
93 >	17.6 >	Ground dissolution of soluble rocks >	Very low (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
95 >	18.1 >	BritPits >	0	0	0	3	-
96 >	18.2 >	Surface ground workings >	0	0	3	-	-
97	18.3	Underground workings	0	0	0	0	0
97	18.4	Underground mining extents	0	0	0	0	-
97 >	18.5 >	Historical Mineral Planning Areas >	0	0	0	3	-



98 >	18.6 >	Non-coal mining >	1	0	0	0	1
98	18.7	JPB mining areas	None (within 0m)				
98	18.8	The Coal Authority non-coal mining	0	0	0	0	-
99	18.9	Researched mining	0	0	0	0	-
99	18.10	Mining record office plans	0	0	0	0	-
99	18.11	BGS mine plans	0	0	0	0	-
99	18.12	Coal mining	None (within 0m)				
99	18.13	Brine areas	None (within 0m)				
100	18.14	Gypsum areas	None (within 0m)				
100	18.15	Tin mining	None (within 0m)				
100	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes >	On site	0-50m	50-250m	250-500m	500-2000m
101	19.1	Natural cavities	0	0	0	0	-
102 >	19.2 >	Mining cavities >	0	0	0	1	0
102	19.3	Reported recent incidents	0	0	0	0	-
102	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
103 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
105 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	2	-	-	-
105	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
106	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
107	22.1	Underground railways (London)	0	0	0	-	-
107	22.2	Underground railways (Non-London)	0	0	0	-	-
107	22.3	Railway tunnels	0	0	0	-	-
107	22.4	Historical railway and tunnel features	0	0	0	-	-
107	22.5	Royal Mail tunnels	0	0	0	-	-
108	22.6	Historical railways	0	0	0	-	-



108	22.7	Railways	0	0	0	-	-
108	22.8	Crossrail 2	0	0	0	0	-
108	22.9	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 05/08/2022

Site Area: 1.31ha



Recent site history - 2020 aerial photograph



Capture Date: 09/04/2020

Site Area: 1.31ha



Recent site history - 2014 aerial photograph



Capture Date: 01/06/2014

Site Area: 1.31ha



Recent site history - 2010 aerial photograph



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Capture Date: 27/04/2010

Site Area: 1.31ha



Recent site history - 2000 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2025. All Rights Reserved.

Capture Date: 10/06/2000

Site Area: 1.31ha



OS MasterMap site plan

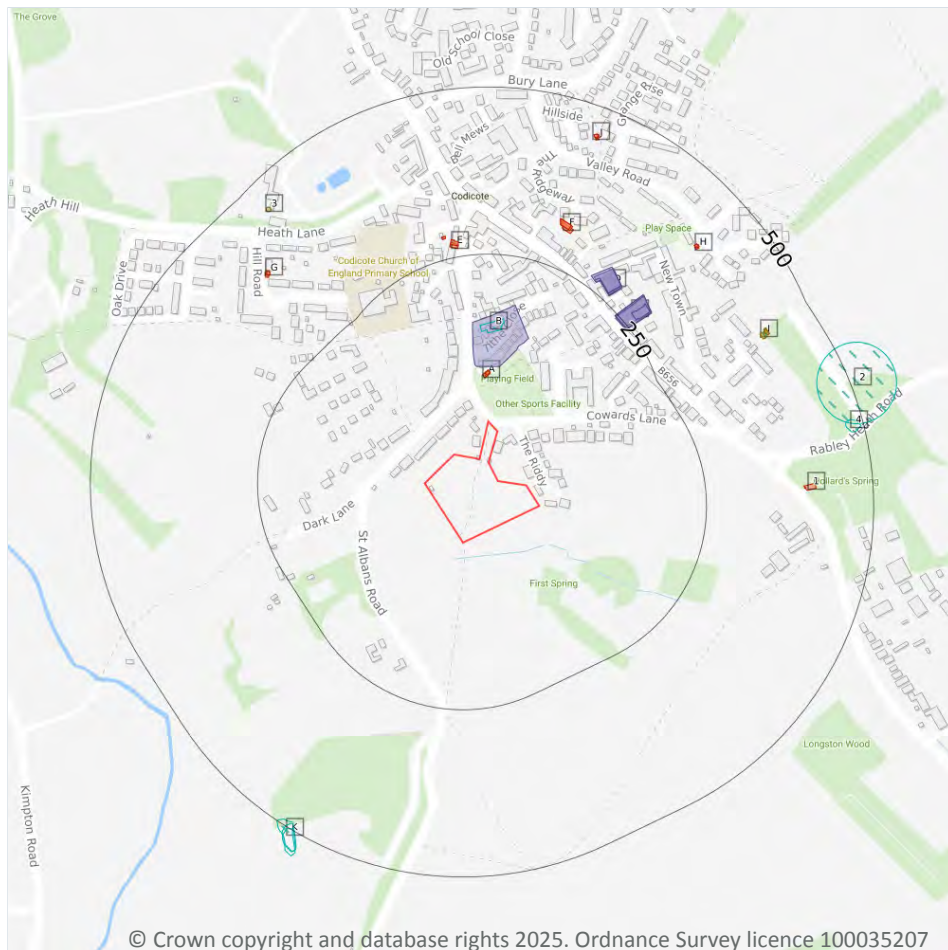


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Site Area: 1.31ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

7

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

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

ID	Location	Land use	Dates present	Group ID
B	132m N	Sawmill	1922 - 1946	2128697



ID	Location	Land use	Dates present	Group ID
I	420m NE	Septic Tank	1922 - 1947	2122405
2	449m E	Chalk Pit	1897	2094582
4	474m E	Gravel Pit	1947	2095183
K	489m SW	Unspecified Pit	1946	2138442
K	491m SW	Chalk Pit	1897	2094469
K	498m SW	Unspecified Pit	1922	2126006

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

4

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

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

ID	Location	Land use	Dates present	Group ID
I	414m NE	Septic Tank	1924 - 1937	370827
I	423m NE	Septic Tank	1970 - 1990	372437
I	423m NE	Septic Tank	1993	369040
3	453m NW	Unspecified Tank	1881	361553

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

19

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

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



ID	Location	Land use	Dates present	Group ID
A	65m N	Electricity Substation	1990	255866
A	67m N	Electricity Substation	1995	255061
A	69m N	Electricity Substation	1972	262177
E	263m N	Electricity Substation	1993	253547
E	266m N	Electricity Substation	1983	253960
E	281m N	Electricity Substation	1958	253776
E	281m N	Electricity Substation	1990	263233
F	306m N	Electricity Substation	1993	261366
F	310m N	Electricity Substation	1958 - 1983	251539
F	311m N	Electricity Substation	1990	255097
G	383m NW	Electricity Substation	1983 - 1993	253320
G	385m NW	Electricity Substation	1958	260287
1	397m E	Electricity Substation	1970 - 1993	261460
H	402m NE	Electricity Substation	1993	262312
H	404m NE	Electricity Substation	1958	257993
H	404m NE	Electricity Substation	1979 - 1990	258557
J	450m N	Electricity Substation	1993	257661
J	453m N	Electricity Substation	1979 - 1990	265093
J	453m N	Electricity Substation	1958	254153

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

12

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

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

ID	Location	Land use	Dates present	Group ID
B	82m N	Garage	1971	76918
C	244m NE	Garage	1993	78060
C	246m NE	Garage	1979 - 1990	78502
C	246m NE	Garage	1958	79207
C	246m NE	Garage	1983	78603
D	260m NE	Garage	1993	77376
D	262m NE	Garage	1971	77890
D	262m NE	Garage	1983	78513
D	263m NE	Garage	1990	77854
D	263m NE	Garage	1958	80313
D	263m NE	Garage	1979	80669
C	266m NE	Garage	1971	79879

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

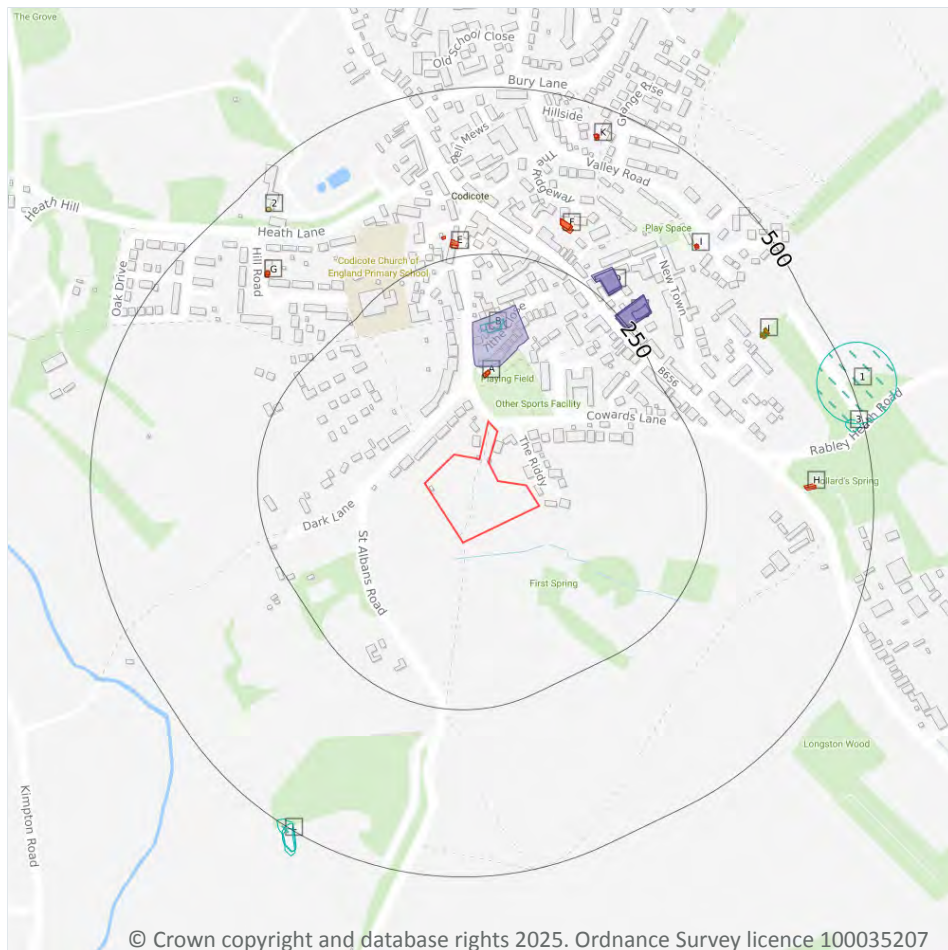
0

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

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

9

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

Features are displayed on the Past land use - un-grouped map on [page 19](#) >

ID	Location	Land Use	Date	Group ID
B	132m N	Sawmill	1946	2128697
B	132m N	Sawmill	1922	2128697
J	420m NE	Septic Tank	1947	2122405



ID	Location	Land Use	Date	Group ID
J	420m NE	Septic Tank	1922	2122405
1	449m E	Chalk Pit	1897	2094582
3	474m E	Gravel Pit	1947	2095183
L	489m SW	Unspecified Pit	1946	2138442
L	491m SW	Chalk Pit	1897	2094469
L	498m SW	Unspecified Pit	1922	2126006

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

7

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

Features are displayed on the Past land use - un-grouped map on [page 19](#) >

ID	Location	Land Use	Date	Group ID
J	414m NE	Septic Tank	1924	370827
J	416m NE	Septic Tank	1937	370827
J	423m NE	Septic Tank	1970	372437
J	423m NE	Septic Tank	1993	369040
J	424m NE	Septic Tank	1989	372437
J	424m NE	Septic Tank	1990	372437
2	453m NW	Unspecified Tank	1881	361553

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

29

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



Features are displayed on the Past land use - un-grouped map on [page 19](#) >

ID	Location	Land Use	Date	Group ID
A	65m N	Electricity Substation	1990	255866
A	67m N	Electricity Substation	1995	255061
A	69m N	Electricity Substation	1972	262177
E	263m N	Electricity Substation	1993	253547
E	266m N	Electricity Substation	1983	253960
E	281m N	Electricity Substation	1958	253776
E	281m N	Electricity Substation	1990	263233
F	306m N	Electricity Substation	1993	261366
F	310m N	Electricity Substation	1971	251539
F	310m N	Electricity Substation	1983	251539
F	311m N	Electricity Substation	1979	251539
F	311m N	Electricity Substation	1958	251539
F	311m N	Electricity Substation	1990	255097
G	383m NW	Electricity Substation	1993	253320
G	385m NW	Electricity Substation	1958	260287
G	385m NW	Electricity Substation	1990	253320
G	386m NW	Electricity Substation	1983	253320
H	397m E	Electricity Substation	1970	261460
H	398m E	Electricity Substation	1993	261460
I	402m NE	Electricity Substation	1993	262312
I	404m NE	Electricity Substation	1979	258557
I	404m NE	Electricity Substation	1958	257993
I	404m NE	Electricity Substation	1990	258557
I	404m NE	Electricity Substation	1983	258557
K	450m N	Electricity Substation	1993	257661
K	453m N	Electricity Substation	1983	265093
K	453m N	Electricity Substation	1979	265093



ID	Location	Land Use	Date	Group ID
K	453m N	Electricity Substation	1958	254153
K	453m N	Electricity Substation	1990	265093

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	13
----------------------------	-----------

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

Features are displayed on the Past land use - un-grouped map on [page 19 >](#)

ID	Location	Land Use	Date	Group ID
B	82m N	Garage	1971	76918
C	244m NE	Garage	1993	78060
C	246m NE	Garage	1990	78502
C	246m NE	Garage	1979	78502
C	246m NE	Garage	1958	79207
C	246m NE	Garage	1983	78603
D	260m NE	Garage	1993	77376
D	262m NE	Garage	1971	77890
D	262m NE	Garage	1983	78513
D	263m NE	Garage	1990	77854
D	263m NE	Garage	1979	80669



ID	Location	Land Use	Date	Group ID
D	263m NE	Garage	1958	80313
C	266m NE	Garage	1971	79879

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m	0
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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	2
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Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on [page 24 >](#)

ID	Location	Details		
2	358m W	Site Address: Three Hills Pit, Heath Lane, Codicote, Hertfordshire Licence Holder Address: -	Waste Licence: Yes Site Reference: 80/85 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 07/01/1980 Licence Surrender: 19/04/1993	Operator: M and P Bridge Licence Holder: J Murphy and Sons First Recorded 07/01/1980 Last Recorded: 19/04/1993
3	496m E	Site Address: Sisserversness Hill Pit, Codicote, Hertfordshire Licence Holder Address: -	Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

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

3.5 Historical waste sites

Records within 500m	0
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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**3**

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

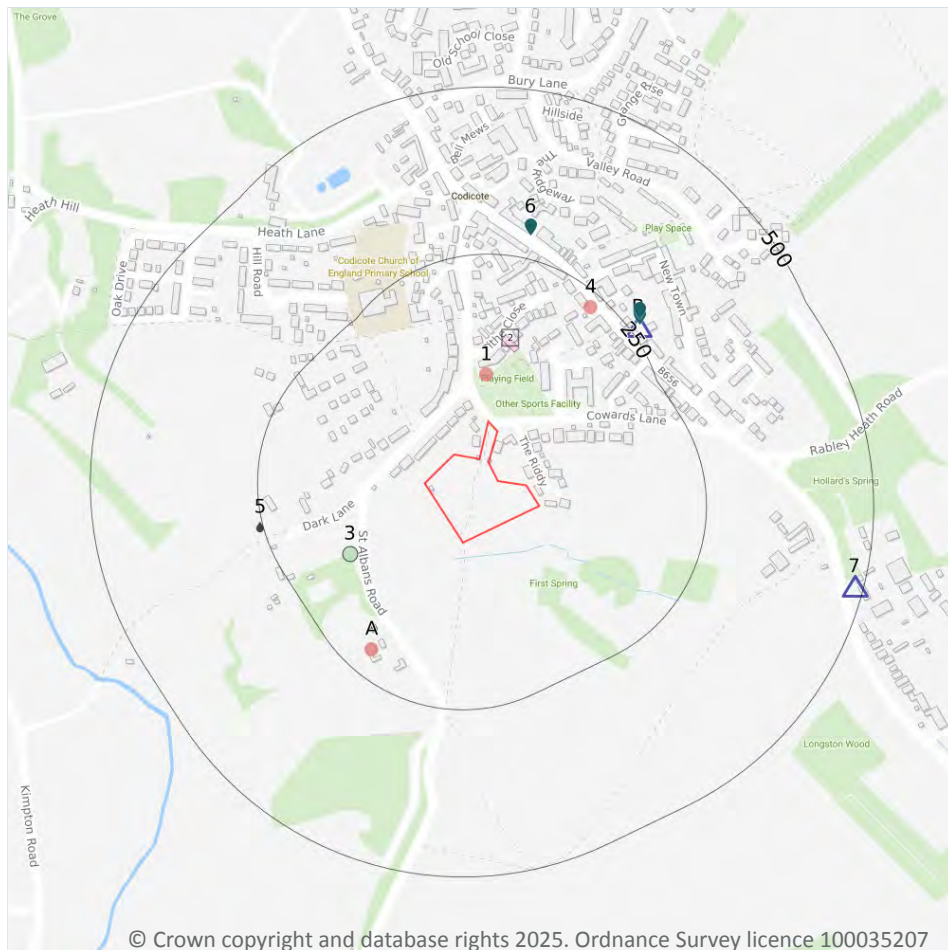
Features are displayed on the Waste and landfill map on [page 24 >](#)

ID	Location	Site	Reference	Category	Sub-Category	Description
1	236m NE	123 High Street Hitchin Hertfordshire Sg4 8ub	EPR/AF0503FL /A001	Treating waste exemption	Non-agricultural waste only	Sorting and de-naturing of controlled drugs for disposal
A	256m NE	123, High Street, Codicote, Hitchin, Sg4 8ub	WEX378262	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	258m NE	123, High Street, Codicote, Hitchin, Sg4 8ub	WEX249330	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Sites determined as Contaminated Land
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

3

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 27](#) >

ID	Location	Company	Address	Activity	Category
1	70m N	Electricity Sub Station	Hertfordshire, SG4	Electrical Features	Infrastructure and Facilities
A	210m SW	E T B	Codicote Barn, St Albans Road, Codicote, Hertfordshire, SG4 8WH	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products



ID	Location	Company	Address	Activity	Category
4	230m NE	Pump	Hertfordshire, SG4	Water Pumping Stations	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	2
----------------------------	----------

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Company	Address	LPG	Status
B	262m NE	GULF	139-141, High Street, Codicote, Welwyn, Hertfordshire, SG4 8XE	Not Applicable	Obsolete
7	486m E	UK	113-115, Codicote Road, Codicote, Welwyn Garden City, Hertfordshire, AL6 9TY	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
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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	1
----------------------------	----------

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

Features are displayed on the Current industrial land use map on [page 27 >](#)



ID	Location	Description	Site name	Category	Year identified
2	111m N	Excavation of hydrocarbon contamination and reinstatement with clean sub-soil and topsoil 8th-12th September 2008	11 Tithe Close, Codicote, Hertfordshire, SG4 8UX	Contaminated Land (Remediated)	2008

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

3

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.

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Address	Details	
B	273m NE	Lion Motor Co, High St, Codicote, SG4 8UB	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
B	278m NE	Codicote Service Station, Hitchin, Hertfordshire, SG4 8XA	Process: Petrol Vapour Recovery Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
6	298m N	Premier Dry Cleaning, 93 High Street, Codicote, Hertfordshire, SG4 8XE	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

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
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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 27 >](#)

ID	Location	Address	Details	
A	184m SW	THESMALLHOLDING,STAL BANS,CODICOTE,HITCHIN ,HERTFORDSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTLU.0703 Permit Version: 1 Receiving Water: -	Status: TRANSFERRED FROM WRA 1963 Issue date: 18/02/1981 Effective Date: 18/02/1981 Revocation Date: -
5	255m W	THREEHILLS,DARKLANE,C ODICOTE,HERTS,HERTS,S G48UZ	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CANM.0655 Permit Version: 1 Receiving Water: LAND VIA BOREHOLE	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 28/10/2003 Effective Date: 28/10/2003 Revocation Date: -

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

4.14 Pollutant release to surface waters (Red List)

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

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

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

4.15 Pollutant release to public sewer

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

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m**0**

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

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

4.17 List 2 Dangerous Substances

Records within 500m**0**

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m**1**

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

Features are displayed on the Current industrial land use map on [page 27 >](#)

ID	Location	Details	
3	151m SW	Incident Date: 24/04/2002 Incident Identification: 74206 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m**0**

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

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



4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m

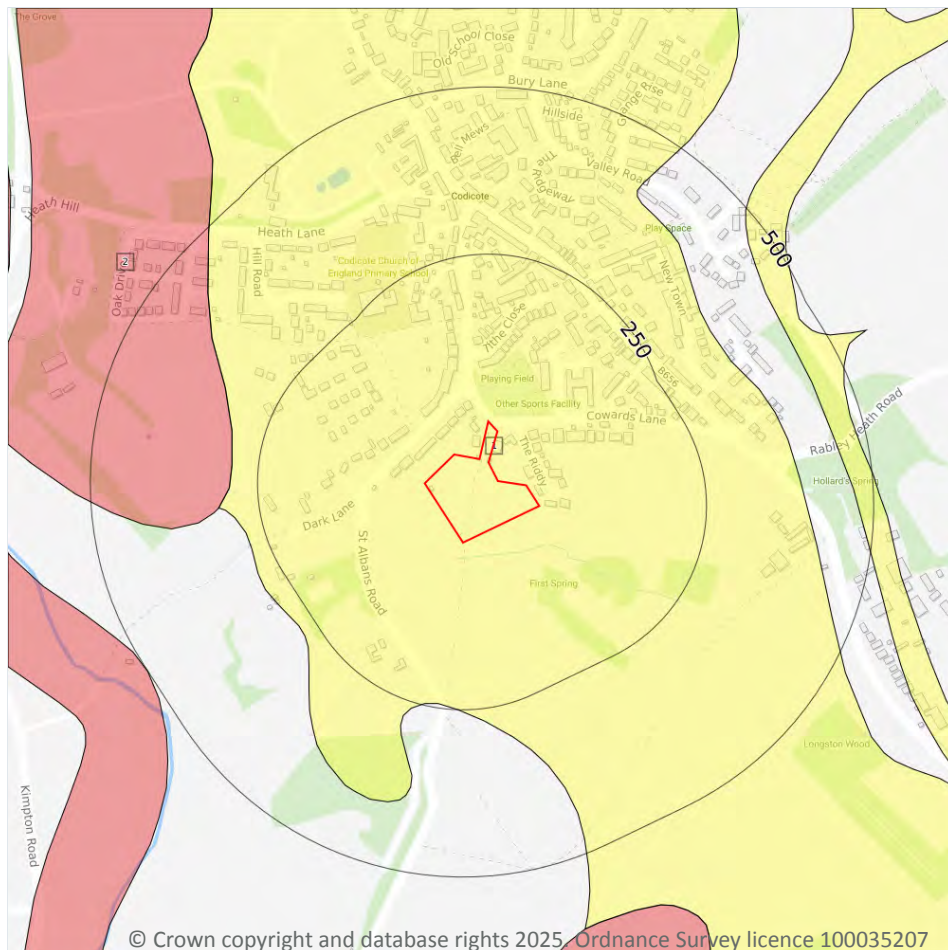
0

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

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



5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 34](#) >

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
2	289m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



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



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

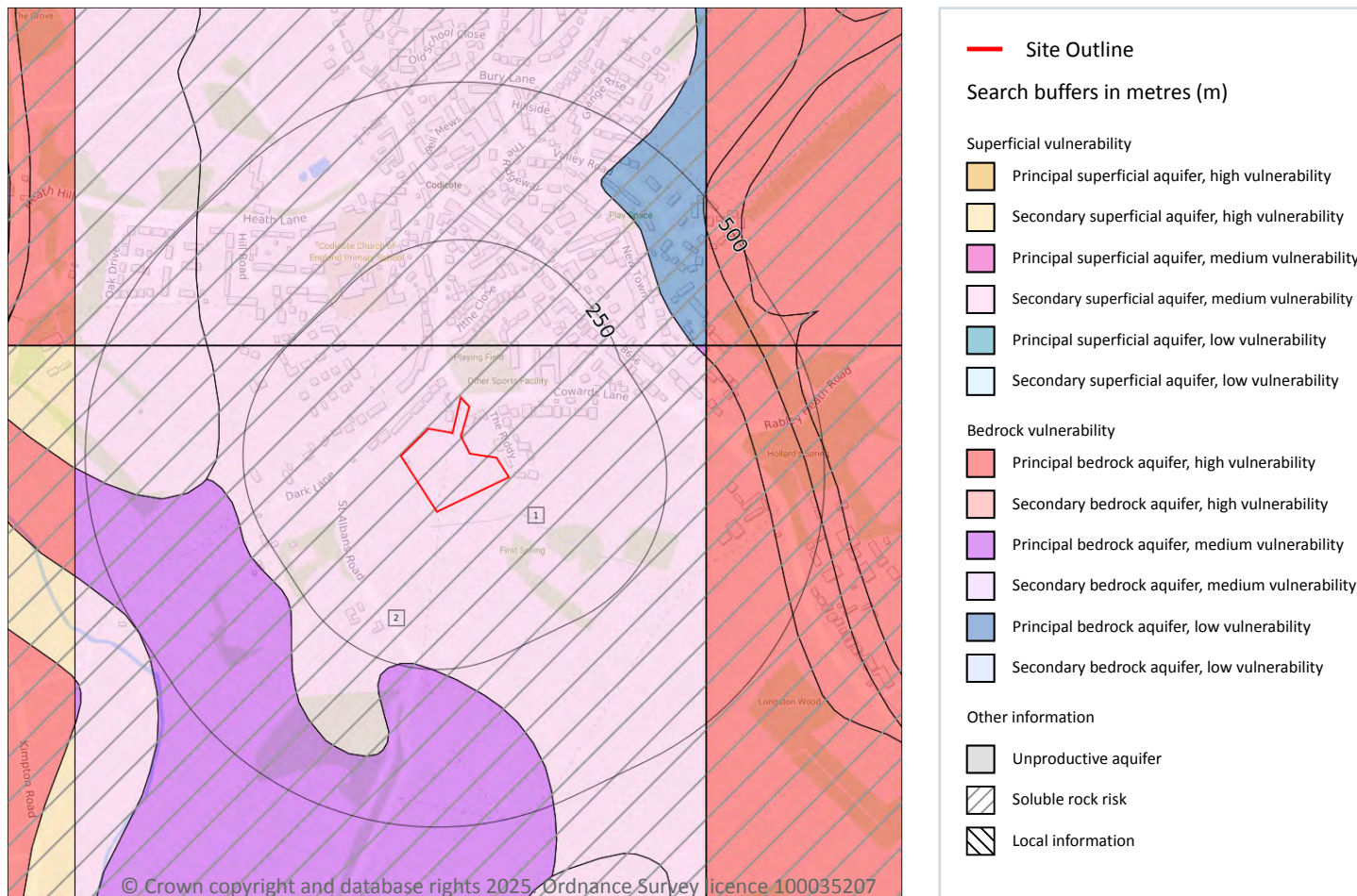
Features are displayed on the Bedrock aquifer map on [page 36 >](#)

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

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

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

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

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: <300mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Medium Aquifer type: Principal Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	1
------------------------	----------

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	Significant soluble rocks are likely to be present. Low possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, but may be possible in adverse conditions such as high surface or subsurface water flow.	23.0%

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

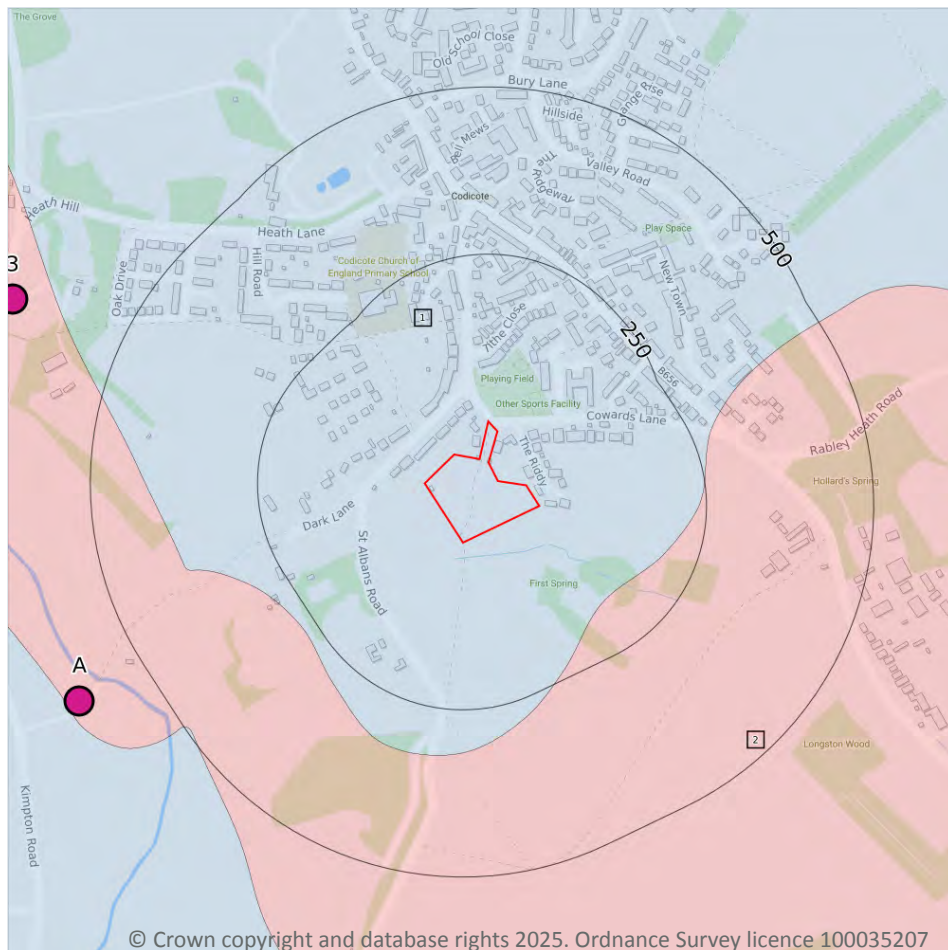
5.5 Groundwater vulnerability- local information

Records on site	0
------------------------	----------

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

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

Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)**
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Point features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

17

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 39](#) >



ID	Location	Details	
A	610m SW	Status: Active Licence No: 29/38/02/0045 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: CODICOTE PUMPING STATION Data Type: Point Name: Affinity Water Limited Easting: 521000 Northing: 217500	Annual Volume (m ³): 238942 Max Daily Volume (m ³): 654.64 Original Application No: NPS/WR/011805 Original Start Date: 20/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 14/11/2012 Version End Date: -
3	675m NW	Status: Historical Licence No: 29/38/02/0075 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: HEATH LANE, CODICTOE - BOREHOLE Data Type: Point Name: BRIDGE Easting: 520900 Northing: 218100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 24/08/1993 Expiry Date: - Issue No: 100 Version Start Date: 24/08/1993 Version End Date: -
-	916m W	Status: Historical Licence No: 29/38/02/0030 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: BOTTOM FARM, CODICOTE - WELL Data Type: Point Name: SAPSED Easting: 520600 Northing: 217800	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/03/1966 Version End Date: -
-	1276m SE	Status: Historical Licence No: 29/38/02/0073 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'A' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522600 Northing: 216900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 31/12/2001 Issue No: 100 Version Start Date: 22/07/1991 Version End Date: -
-	1276m SE	Status: Historical Licence No: 29/38/02/0084 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILLPUMPING STATION AT POINT A Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522600 Northing: 216900	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 26/11/2001 Expiry Date: 31/03/2008 Issue No: 1 Version Start Date: 01/01/2007 Version End Date: -



ID	Location	Details	
-	1276m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'A' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522600 Northing: 216900	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/09/1966 Version End Date: -
-	1312m SE	Status: Active Licence No: 29/38/02/0047/1 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'A' Data Type: Point Name: Affinity Water Limited Easting: 522650 Northing: 216900	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: NPS/WR/011805 Original Start Date: 20/09/1966 Expiry Date: - Issue No: 1 Version Start Date: 01/04/2018 Version End Date: -
-	1312m SE	Status: Historical Licence No: 29/38/02/0089 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'A' Data Type: Point Name: Affinity Water Limited Easting: 522650 Northing: 216900	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 20/05/2008 Expiry Date: 31/03/2015 Issue No: 3 Version Start Date: 14/11/2012 Version End Date: -
-	1312m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'A' Data Type: Point Name: Affinity Water Limited Easting: 522650 Northing: 216900	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 14/11/2012 Version End Date: -
-	1608m SE	Status: Historical Licence No: 29/38/02/0084 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION AT POINT B Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522800 Northing: 216630	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 26/11/2001 Expiry Date: 31/03/2008 Issue No: 1 Version Start Date: 01/01/2007 Version End Date: -



ID	Location	Details	
-	1630m SE	Status: Historical Licence No: 29/38/02/0073 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'B' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522800 Northing: 216600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 31/12/2001 Issue No: 100 Version Start Date: 22/07/1991 Version End Date: -
-	1630m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'B' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522800 Northing: 216600	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/09/1966 Version End Date: -
-	1665m SE	Status: Active Licence No: 29/38/02/0047/1 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'B' Data Type: Point Name: Affinity Water Limited Easting: 522880 Northing: 216630	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: NPS/WR/011805 Original Start Date: 20/09/1966 Expiry Date: - Issue No: 1 Version Start Date: 01/04/2018 Version End Date: -
-	1665m SE	Status: Historical Licence No: 29/38/02/0089 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'B' Data Type: Point Name: Affinity Water Limited Easting: 522880 Northing: 216630	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 20/05/2008 Expiry Date: 31/03/2015 Issue No: 3 Version Start Date: 14/11/2012 Version End Date: -
-	1665m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'B' Data Type: Point Name: Affinity Water Limited Easting: 522880 Northing: 216630	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 14/11/2012 Version End Date: -



ID	Location	Details	
-	1727m NE	Status: Active Licence No: 29/38/02/0017 Details: Horticultural Watering Direct Source: THAMES GROUNDWATER Point: OLD WELWYN NURSERIES, WELWYN - BOREHOLE Data Type: Point Name: DAY Easting: 523100 Northing: 218800	Annual Volume (m ³): 1300.16 Max Daily Volume (m ³): 34.1 Original Application No: W/246 Original Start Date: 20/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 13/10/1967 Version End Date: -
-	1727m NE	Status: Historical Licence No: 29/38/02/0017 Details: Horticultural Watering Direct Source: THAMES GROUNDWATER Point: OLD WELWYN NURSERIES, WELWYN - BOREHOLE Data Type: Point Name: DAY Easting: 523100 Northing: 218800	Annual Volume (m ³): 1300.16 Max Daily Volume (m ³): 34.09 Original Application No: W/246 Original Start Date: 20/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 13/10/1967 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

14

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 39 >](#)

ID	Location	Details	
-	1917m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: POINT 'C' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519730 Northing: 218520	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -



ID	Location	Details	
-	1917m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'C' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519730 Northing: 218520	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 03/11/1999 Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1922m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: POINT 'F' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519720 Northing: 218510	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1922m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'F' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519720 Northing: 218510	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 03/11/1999 Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1926m W	Status: Historical Licence No: 29/38/02/0081/R01 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'B' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519727 Northing: 218538	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 04/11/2014 Expiry Date: 31/03/2030 Issue No: 1 Version Start Date: 04/11/2014 Version End Date: -
-	1929m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: POINT 'B' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519720 Northing: 218530	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -



ID	Location	Details	
-	1929m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'B' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519720 Northing: 218530	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 03/11/1999 Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1933m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: POINT 'A' AT KIMPTON MILL, HERTFORDSHIRE Data Type: Point Name: SANSOM & SONS Easting: 519720 Northing: 218540	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1933m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'A' AT KIMPTON MILL, HERTFORDSHIRE Data Type: Point Name: SANSOM & SONS Easting: 519720 Northing: 218540	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 03/11/1999 Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1934m W	Status: Historical Licence No: 29/38/02/0081/R01 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'A' AT KIMPTON MILL, HERTFORDSHIRE Data Type: Point Name: SANSOM & SONS Easting: 519725 Northing: 218555	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 04/11/2014 Expiry Date: 31/03/2030 Issue No: 1 Version Start Date: 04/11/2014 Version End Date: -
-	1939m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: POINT 'E' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519710 Northing: 218530	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -



ID	Location	Details	
-	1939m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'E' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519710 Northing: 218530	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 03/11/1999 Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1942m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: POINT 'D' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519710 Northing: 218540	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -
-	1942m W	Status: Historical Licence No: 29/38/02/0081 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER MIMRAM AT POINT 'D' AT KIMPTON MILLS, HERTS Data Type: Point Name: SANSOM & SONS Easting: 519710 Northing: 218540	Annual Volume (m ³): 829280 Max Daily Volume (m ³): 2272 Original Application No: - Original Start Date: 03/11/1999 Expiry Date: 03/11/2014 Issue No: 1 Version Start Date: 03/11/1999 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

13

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 39](#) >



ID	Location	Details	
A	610m SW	Status: Active Licence No: 29/38/02/0045 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: CODICOTE PUMPING STATION Data Type: Point Name: Affinity Water Limited Easting: 521000 Northing: 217500	Annual Volume (m ³): 238942 Max Daily Volume (m ³): 654.64 Original Application No: NPS/WR/011805 Original Start Date: 20/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 14/11/2012 Version End Date: -
-	1276m SE	Status: Historical Licence No: 29/38/02/0073 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'A' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522600 Northing: 216900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 31/12/2001 Issue No: 100 Version Start Date: 22/07/1991 Version End Date: -
-	1276m SE	Status: Historical Licence No: 29/38/02/0084 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION AT POINT A Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522600 Northing: 216900	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 26/11/2001 Expiry Date: 31/03/2008 Issue No: 1 Version Start Date: 01/01/2007 Version End Date: -
-	1276m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'A' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522600 Northing: 216900	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/09/1966 Version End Date: -
-	1312m SE	Status: Active Licence No: 29/38/02/0047/1 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'A' Data Type: Point Name: Affinity Water Limited Easting: 522650 Northing: 216900	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: NPS/WR/011805 Original Start Date: 20/09/1966 Expiry Date: - Issue No: 1 Version Start Date: 01/04/2018 Version End Date: -



ID	Location	Details	
-	1312m SE	Status: Historical Licence No: 29/38/02/0089 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'A' Data Type: Point Name: Affinity Water Limited Easting: 522650 Northing: 216900	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 20/05/2008 Expiry Date: 31/03/2015 Issue No: 3 Version Start Date: 14/11/2012 Version End Date: -
-	1312m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'A' Data Type: Point Name: Affinity Water Limited Easting: 522650 Northing: 216900	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 14/11/2012 Version End Date: -
-	1608m SE	Status: Historical Licence No: 29/38/02/0084 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION AT POINT B Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522800 Northing: 216630	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 26/11/2001 Expiry Date: 31/03/2008 Issue No: 1 Version Start Date: 01/01/2007 Version End Date: -
-	1630m SE	Status: Historical Licence No: 29/38/02/0073 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'B' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522800 Northing: 216600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 31/12/2001 Issue No: 100 Version Start Date: 22/07/1991 Version End Date: -
-	1630m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION 'B' Data Type: Point Name: THREE VALLEYS WATER PLC Easting: 522800 Northing: 216600	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 20/09/1966 Version End Date: -



ID	Location	Details	
-	1665m SE	Status: Active Licence No: 29/38/02/0047/1 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'B' Data Type: Point Name: Affinity Water Limited Easting: 522880 Northing: 216630	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: NPS/WR/011805 Original Start Date: 20/09/1966 Expiry Date: - Issue No: 1 Version Start Date: 01/04/2018 Version End Date: -
-	1665m SE	Status: Historical Licence No: 29/38/02/0089 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'B' Data Type: Point Name: Affinity Water Limited Easting: 522880 Northing: 216630	Annual Volume (m ³): 6196198 Max Daily Volume (m ³): 20457 Original Application No: - Original Start Date: 20/05/2008 Expiry Date: 31/03/2015 Issue No: 3 Version Start Date: 14/11/2012 Version End Date: -
-	1665m SE	Status: Historical Licence No: 29/38/02/0047 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FULLING MILL PUMPING STATION - POINT 'B' Data Type: Point Name: Affinity Water Limited Easting: 522880 Northing: 216630	Annual Volume (m ³): 2045743 Max Daily Volume (m ³): 9092.19 Original Application No: - Original Start Date: 20/09/1966 Expiry Date: - Issue No: 102 Version Start Date: 14/11/2012 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	2
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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 39](#) >

ID	Location	Type	Description
1	On site	2	Outer catchment
2	170m SE	1	Inner catchment

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



5.10 Source Protection Zones (confined aquifer)

Records within 500m

0

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

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



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

12

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

Features are displayed on the Hydrology map on [page 51](#) >

ID	Location	Type of water feature	Ground level	Permanence	Name
B	24m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-



ID	Location	Type of water feature	Ground level	Permanence	Name
C	26m S	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	28m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	56m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	59m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	113m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	129m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	157m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	162m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	186m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	190m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	220m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.



6.2 Surface water features

Records within 250m

6

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

Features are displayed on the Hydrology map on [page 51 >](#)

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on [page 51 >](#)

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Mimram (Codicote Bottom to Lee)	GB106038033270	Lee Upper	Lee Upper

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

6.4 WFD Surface water bodies

Records identified

1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on [page 51 >](#)

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	516m SW	River	Mimram (Codicote Bottom to Lee)	GB106038033270 ↗	Moderate	Fail	Moderate	2019



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

6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on [page 51](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Upper Lee Chalk	GB40601G602900 ↗	Poor	Poor	Poor	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

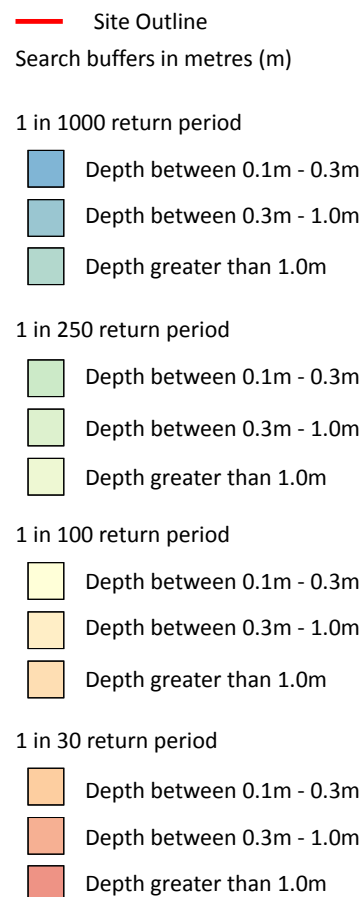
0

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 30 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 58](#) >

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.

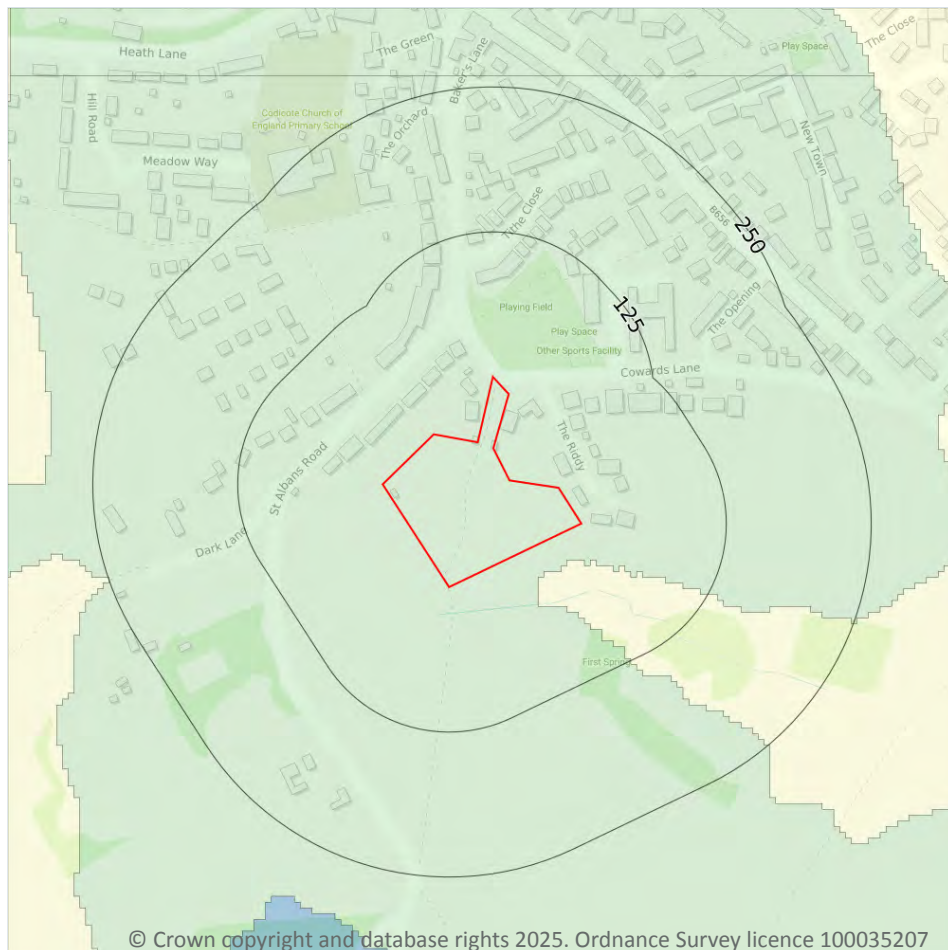
The table below shows the maximum flood depths for a range of return periods for the site.

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 Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

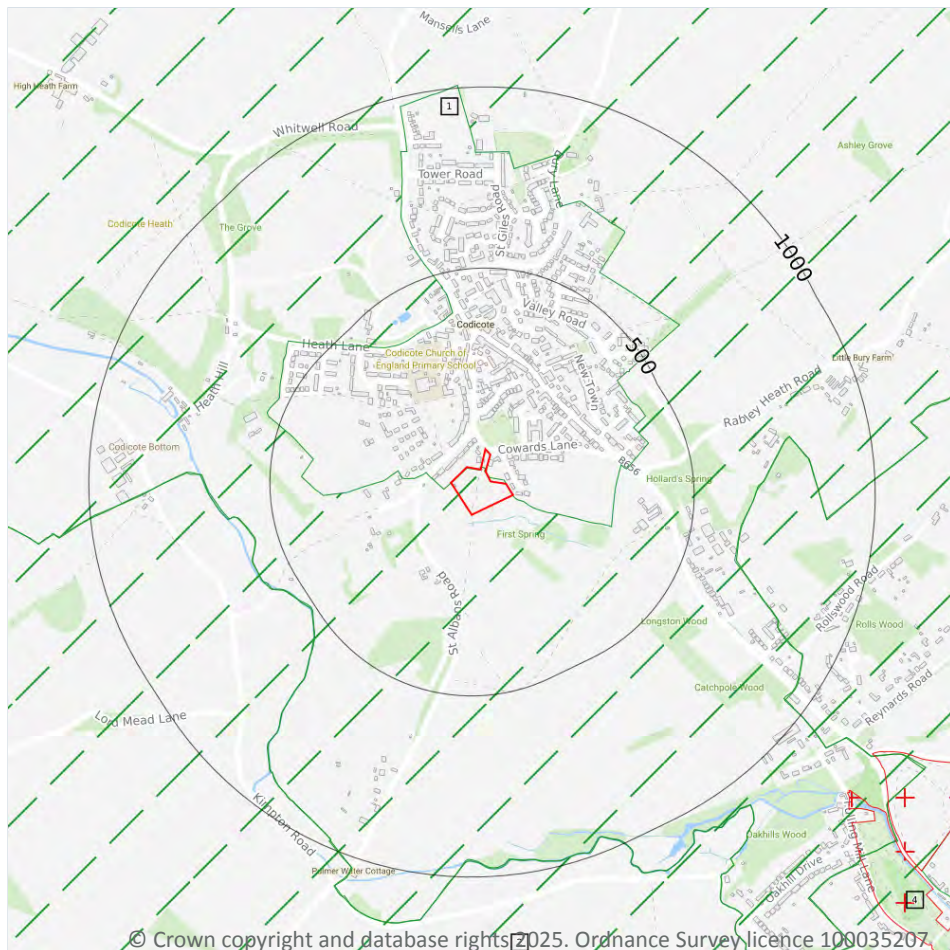
Moderate

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 60 >](#)

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- X Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

4

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

Features are displayed on the Environmental designations map on [page 61 >](#)

ID	Location	Name	Data source
3	1223m SE	Danesbury Park	Natural England
4	1236m SE	Singlers Marsh	Natural England
-	1824m SE	Danesbury Park	Natural England
-	1858m E	Danesbury Park	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

2

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

Features are displayed on the Environmental designations map on [page 61 >](#)

ID	Location	Name	Woodland Type
-	1698m SW	Hurstlings Wood	Ancient & Semi-Natural Woodland
-	1852m N	Node Wood	Ancient Replanted Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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



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

10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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

10.11 Green Belt

Records within 2000m

2

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

Features are displayed on the Environmental designations map on [page 61](#) >

ID	Location	Name	Local Authority name
1	On site	London Green Belt	North Hertfordshire
2	513m SW	London Green Belt	Welwyn Hatfield

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

3

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	LEE NVZ	Surface Water	443	Existing

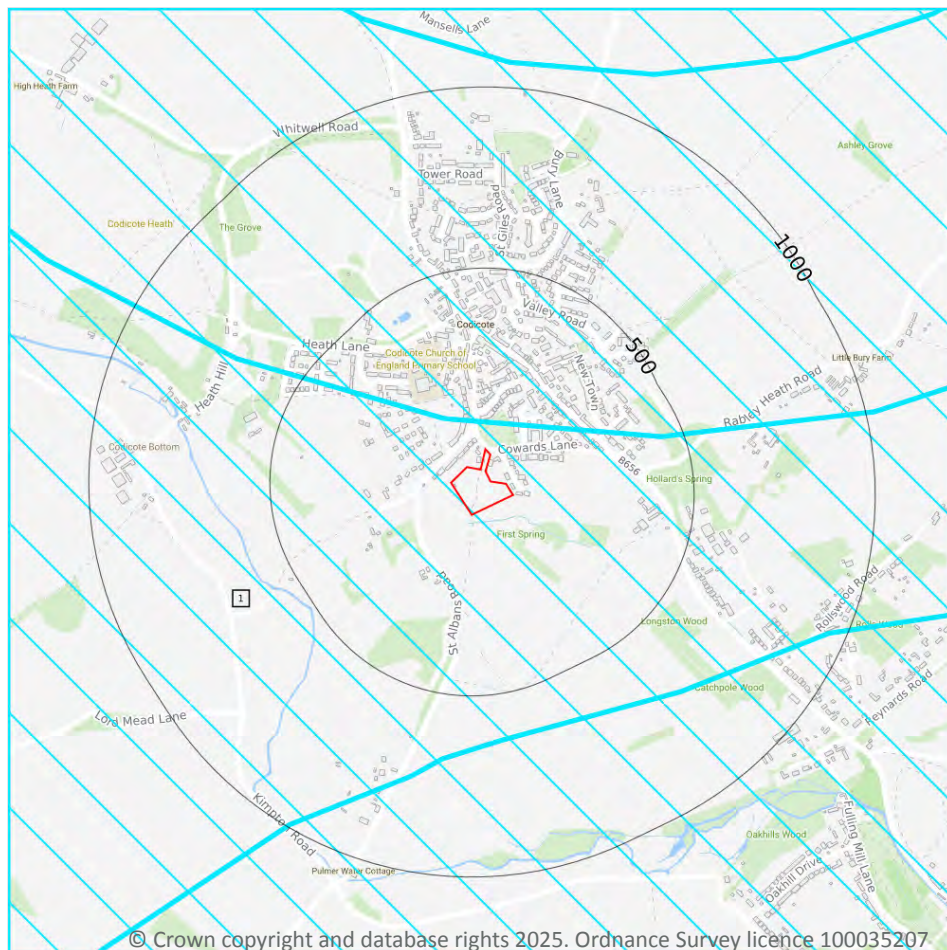


Location	Name	Type	NVZ ID	Status
1755m S	LEE NVZ	Surface Water	443	Existing
1761m NW	Luton Chalk	Groundwater	146	Existing

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on [page 67](#) >

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t. Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.



This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

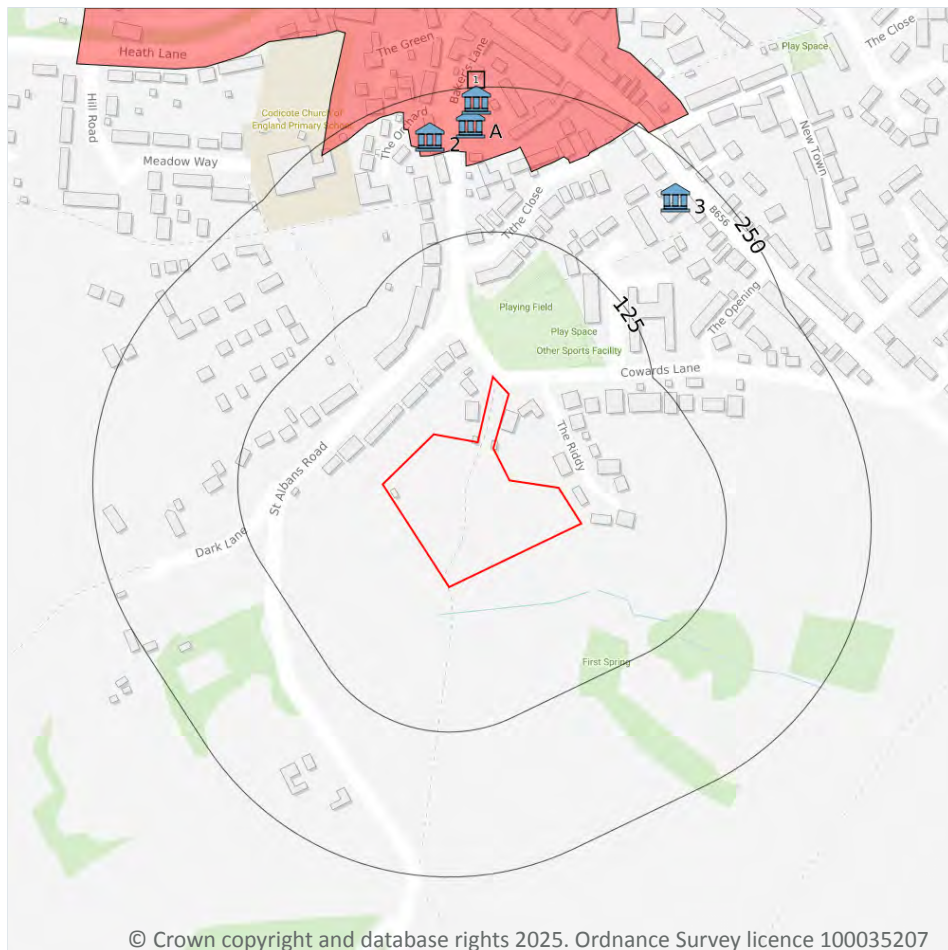
0

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

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



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m**0**

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

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

11.3 National Parks

Records within 250m**0**

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

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

11.4 Listed Buildings

Records within 250m**4**

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

Features are displayed on the Visual and cultural designations map on [page 69 >](#)

ID	Location	Name	Grade	Reference Number	Listed date
2	214m N	26-34, St Albans Road	II	1102776	21/03/1984
A	219m N	Tithe Farmhouse	II	1102832	15/03/1974
3	220m NE	Rosebank	II	1102808	21/03/1984
A	239m N	Tythe Barn	II	1347252	15/03/1974

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



11.5 Conservation Areas

Records within 250m

1

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

Features are displayed on the Visual and cultural designations map on [page 69](#) >

ID	Location	Name	District	Date of designation
1	180m N	Codicote	North Hertfordshire	08/06/1970

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

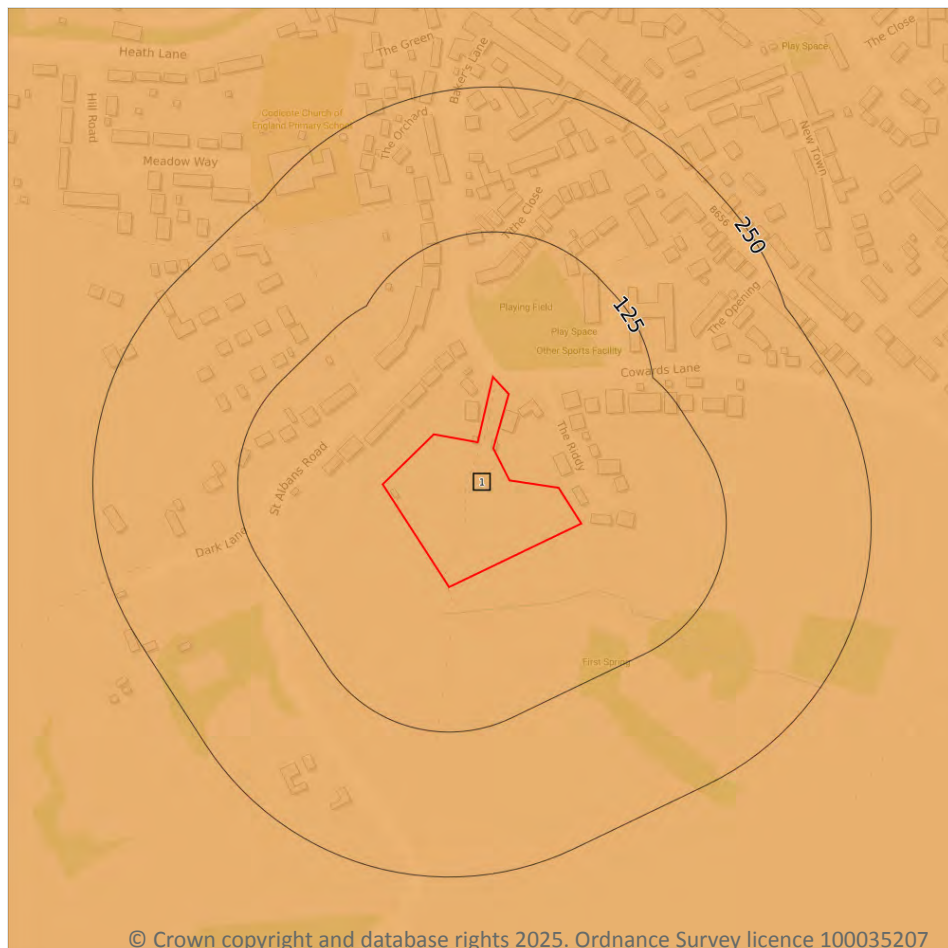
0

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

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 72](#) >

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

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m

0

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

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

12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

2

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
110m W	AG00313655	Entry Level plus Higher Level Stewardship	01/06/2011	31/05/2021
111m W	AG00313655	Entry Level plus Higher Level Stewardship	01/06/2011	31/05/2021

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

2

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

Location	Reference	Scheme	Start Date	End Date
33m S	1233203	Countryside Stewardship (Middle Tier)	01/01/2022	31/12/2026



Location	Reference	Scheme	Start Date	End Date
111m W	1461370	Countryside Stewardship (Middle Tier)	01/01/2023	31/12/2027

This data is sourced from Natural England.



13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

1

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 75 >](#)

ID	Location	Main Habitat	Other habitats
1	84m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.



13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline**
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on [page 77](#) >

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

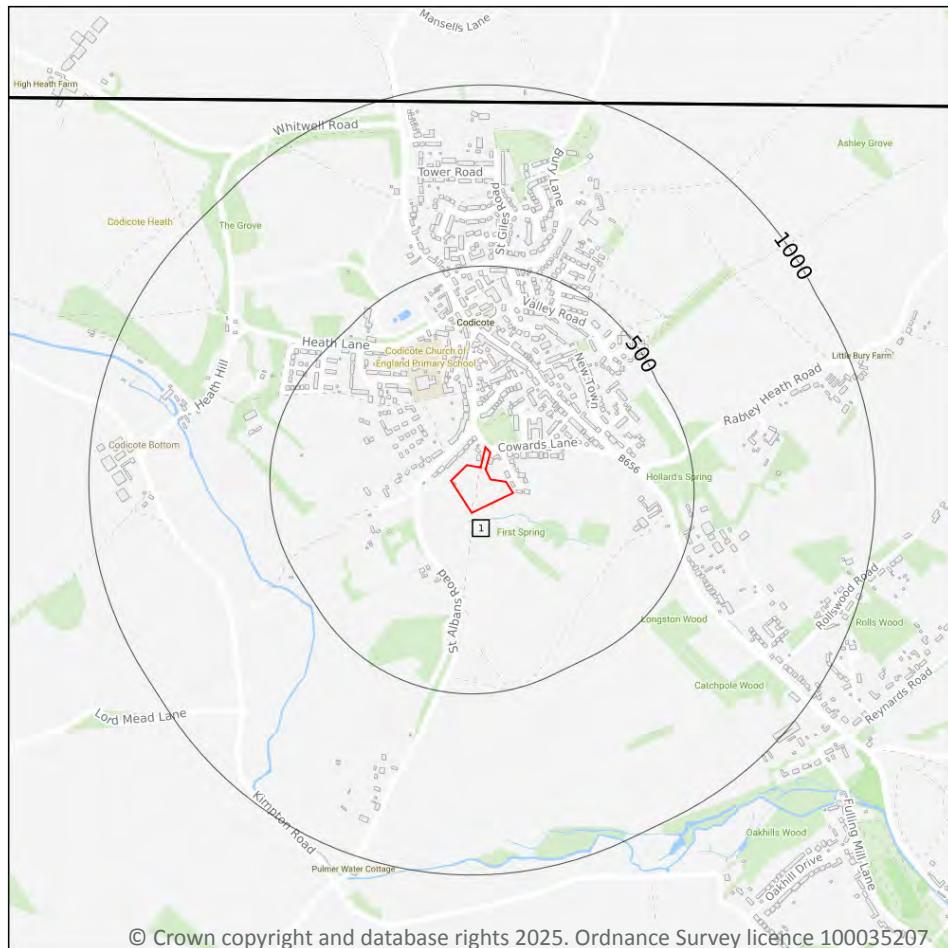
0

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

1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on [page 81](#) >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW239_hertford_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

3

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 83](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	LOFT-DMTN	LOWESTOFT FORMATION	DIAMICTON
2	289m W	GFDMP-XSV	GLACIOFLUVIAL DEPOSITS, MID PLEISTOCENE	SAND AND GRAVEL
3	447m E	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL



This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

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

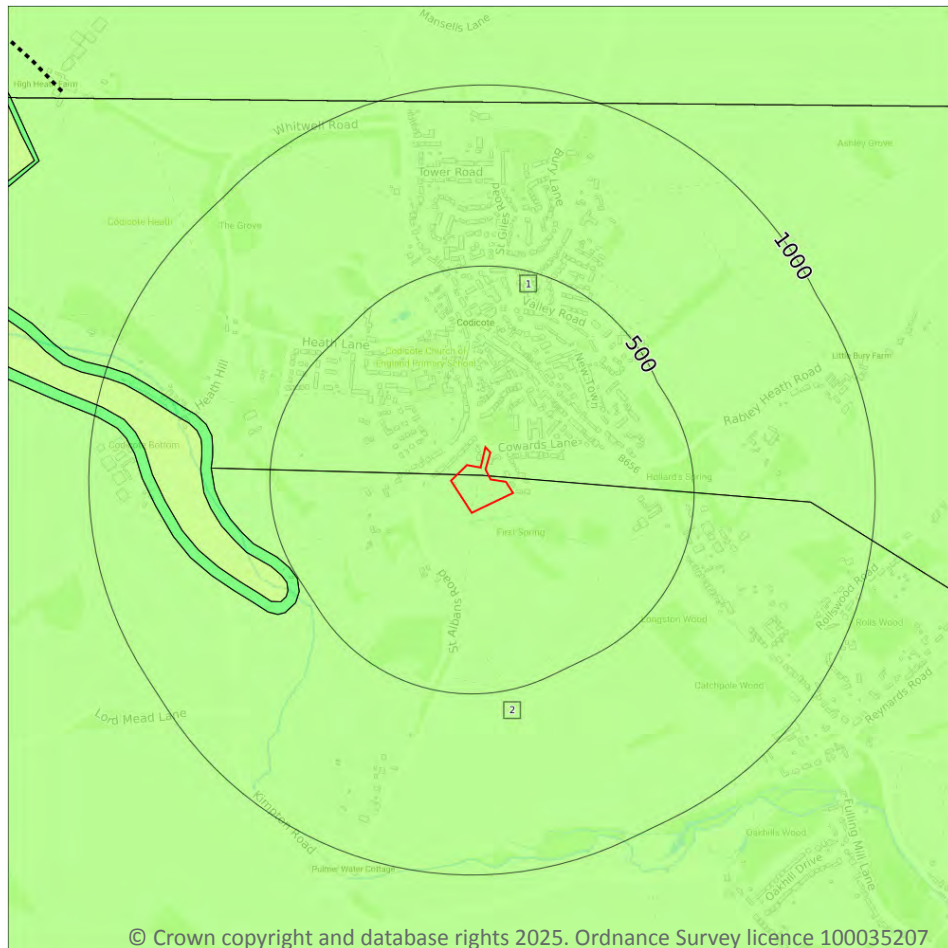
0

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

2

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 85](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	LESE-CHLK	LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION (UNDIFFERENTIATED) - CHALK	TURONIAN
2	On site	LESE-CHLK	LEWES NODULAR CHALK FORMATION AND SEAFORD CHALK FORMATION (UNDIFFERENTIATED) - CHALK	TURONIAN

This data is sourced from the British Geological Survey.



15.9 Bedrock permeability (50k)

Records within 50m

1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Very High	Very High

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



16 Boreholes



Site Outline
Search buffers in metres (m)

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

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16.1 BGS Boreholes

Records within 250m

1

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

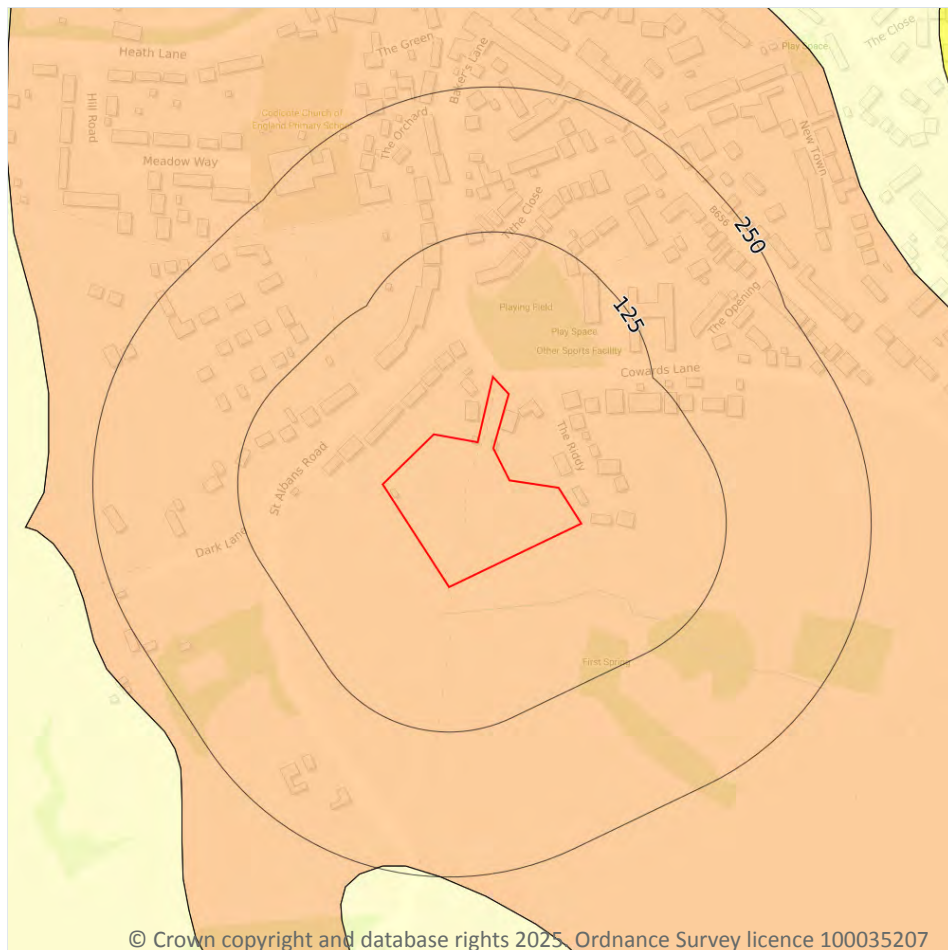
Features are displayed on the Boreholes map on [page 87](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	521650 217820	CODICOTE VILLAGE	12.2	N	533021 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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

17.1 Shrink swell clays

Records within 50m

1

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

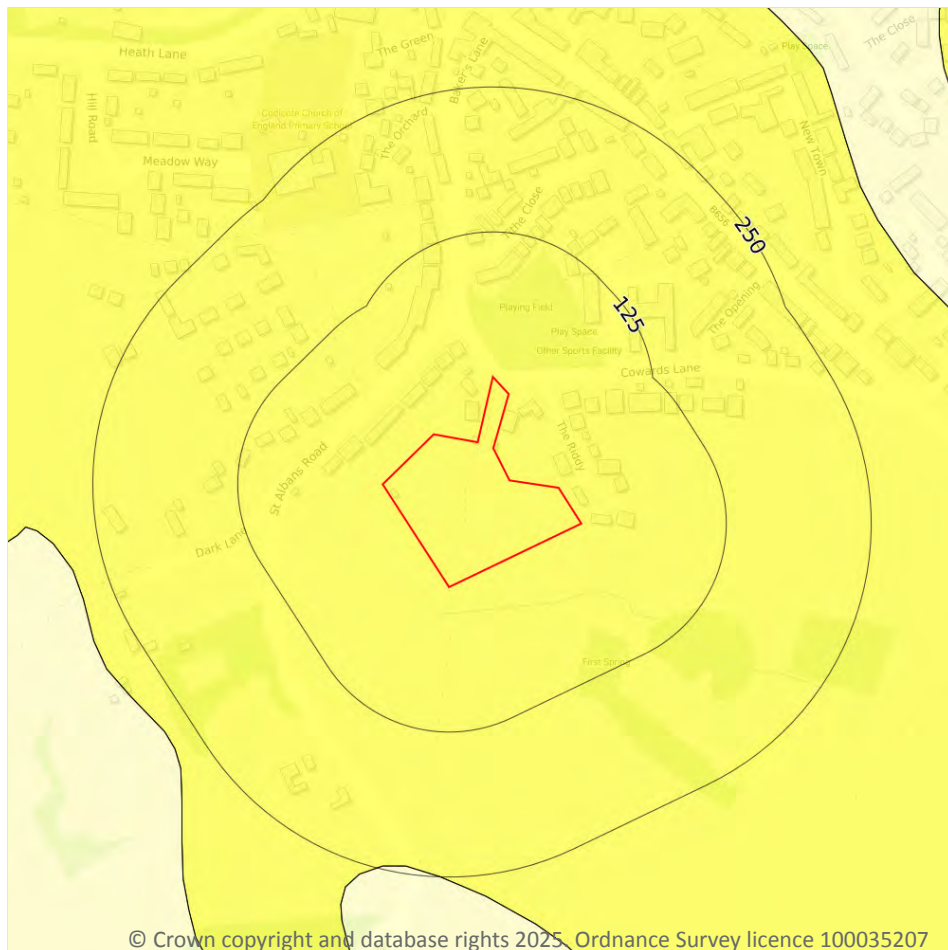
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 88](#) >

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



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

17.2 Running sands

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Running sands map on [page 89](#) >

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



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

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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.

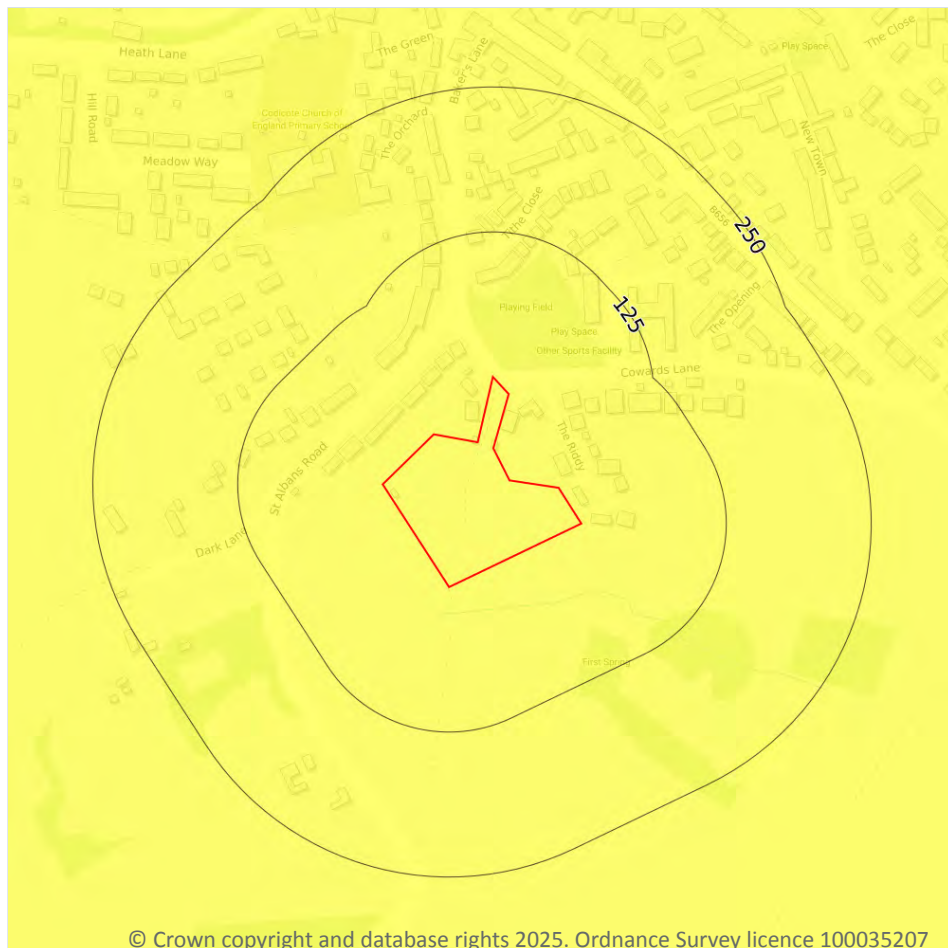
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 90 >](#)

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.

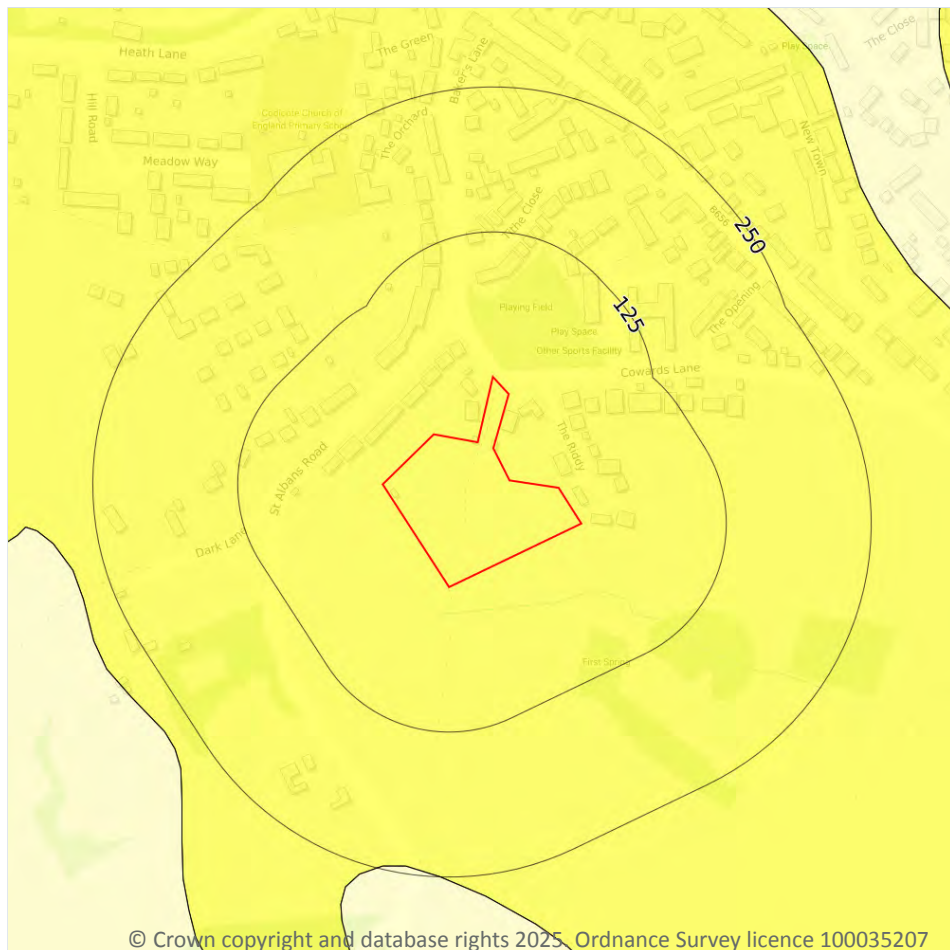
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 91](#) >

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



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

17.5 Landslides

Records within 50m

1

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

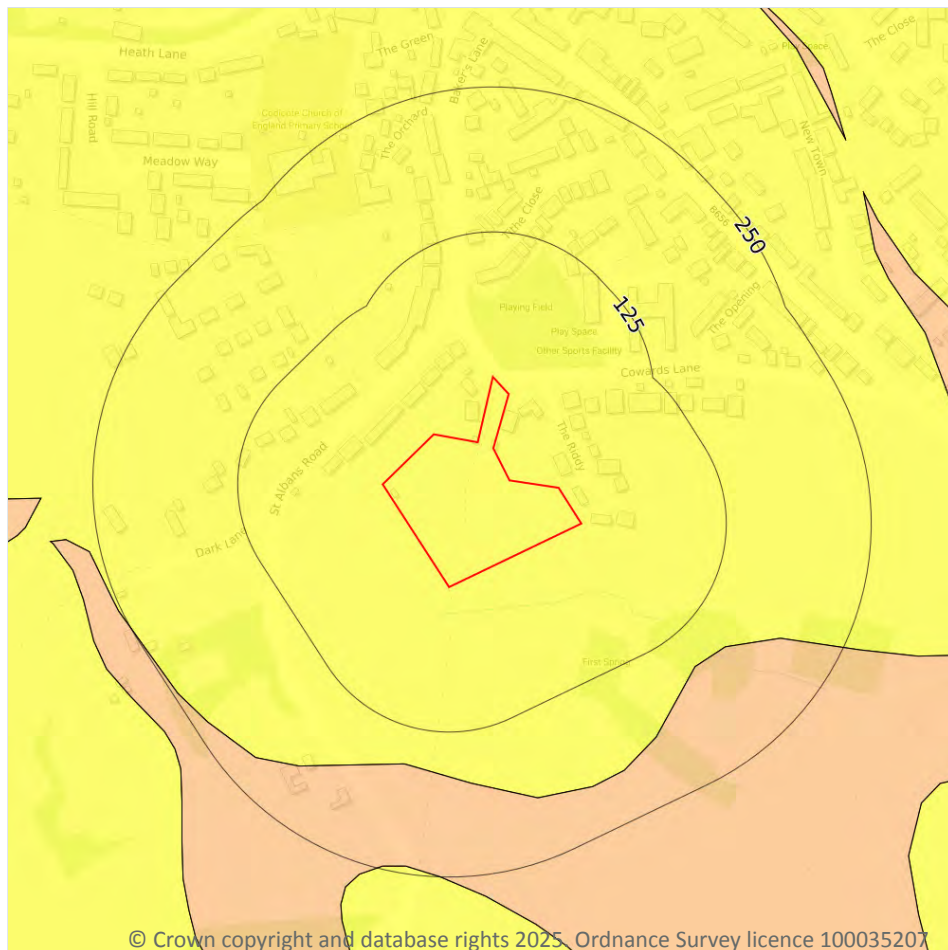
Features are displayed on the Natural ground subsidence - Landslides map on [page 92](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 93](#)

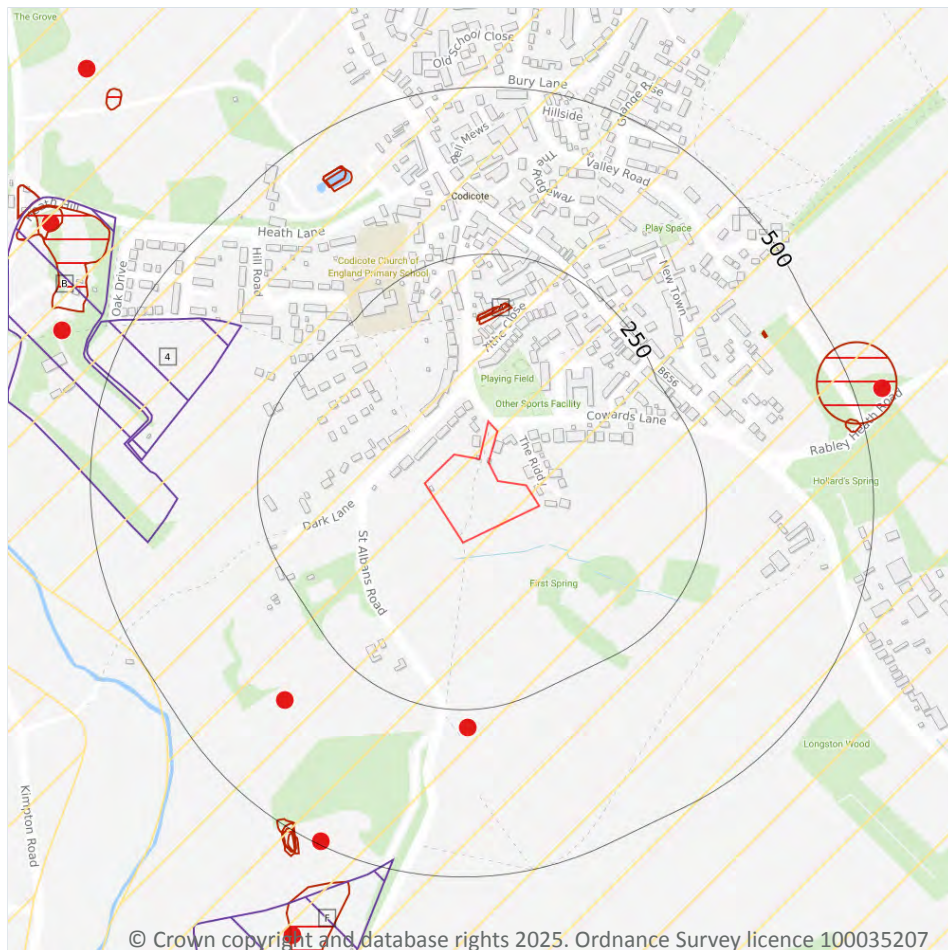
Location	Hazard rating	Details
On site	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- Surface ground workings
- Underground workings
- Underground mining extents
- Historical mineral planning areas
- TCA non-coal mining
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m

3

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

Features are displayed on the Mining and ground workings map on [page 95 >](#)

ID	Location	Details	Description
2	277m S	Name: First Spring Pit Address: Codicote, STEVENAGE, Hertfordshire Commodity: Chalk Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
3	355m SW	Name: Three Hills Pit Address: Codicote, STEVENAGE, Hertfordshire Commodity: Chalk Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
G	494m SW	Name: Codicote Quarry Address: Codicote, HITCHIN, Hertfordshire Commodity: Chalk Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

3

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

Features are displayed on the Mining and ground workings map on [page 95 >](#)

ID	Location	Land Use	Year of mapping	Mapping scale
A	146m N	Pond	1884	1:10560
A	152m N	Pond	1946	1:10560
A	152m N	Pond	1922	1:10560

This is data is sourced from Ordnance Survey/Groundsure.



18.3 Underground workings

Records within 1000m**0**

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

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m**0**

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m**3**

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

Features are displayed on the Mining and ground workings map on [page 95 >](#)

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
4	358m NW	Three Hills	Sand and gravel	Surface mineral working	Refused	09/07/68
B	371m W	Three Hills	Sand and gravel	Surface mineral working	Valid	04/06/54
F	486m S	Codicote Quarry	Chalk	Surface mineral working	Valid	Not available

This data is sourced from the British Geological Survey.



18.6 Non-coal mining

Records within 1000m

2

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

Features are displayed on the Mining and ground workings map on [page 95](#) >

ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Chalk	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
6	625m SW	Not available	Chalk	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.



18.9 Researched mining

Records within 500m**0**

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m**0**

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m**0**

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site**0**

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site**0**

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

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



18.14 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0
-----------------	---

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

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



19 Ground cavities and sinkholes



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- Mining cavities
- Reported recent incidents
- Historical incidents

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

1

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.

Features are displayed on the Ground cavities and sinkholes map on [page 101](#) >

ID	Location	Mine Address	Mineral	Data source	Publisher
1	303m N	Codicote, Hertfordshire	Chalk	-	-

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

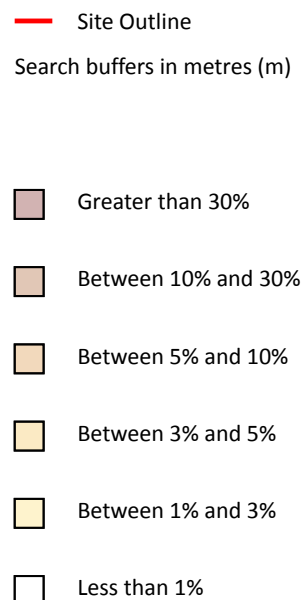
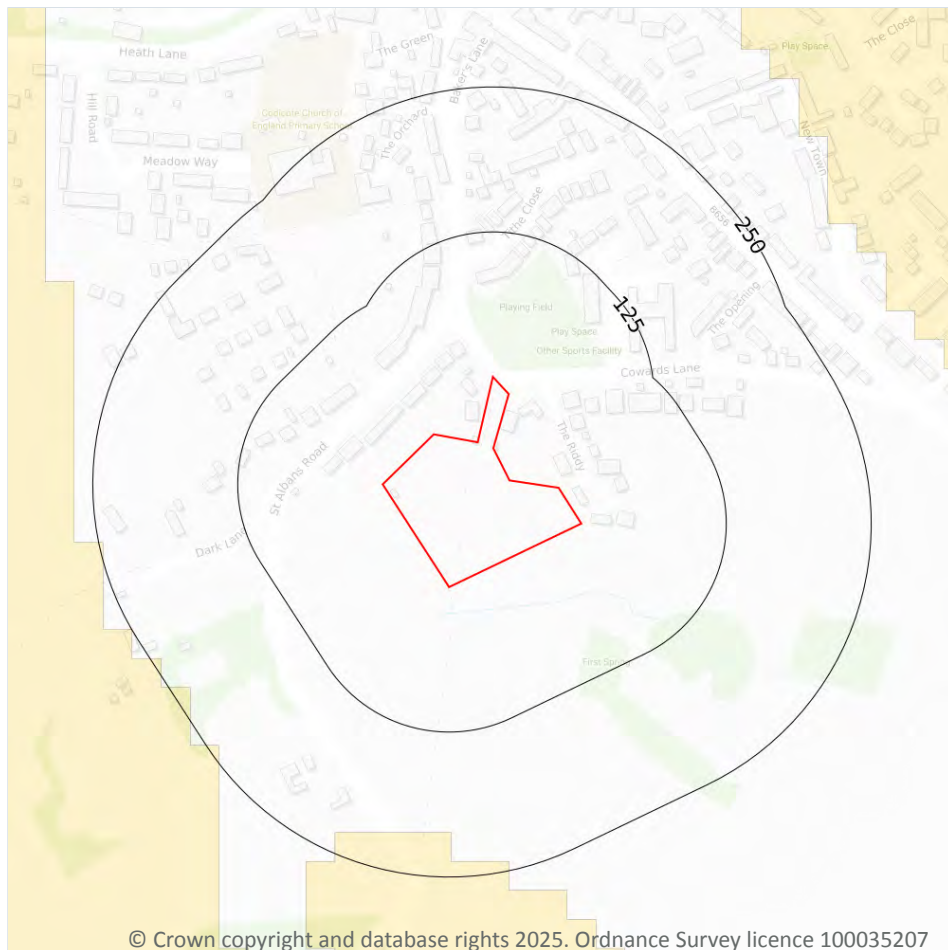
This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.

This data is sourced from Groundsure.



20 Radon



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20.1 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 103](#) >

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



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

4

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
16m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
24m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.



21.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects

22.1 Underground railways (London)

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

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

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

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

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

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

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

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

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

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

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

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Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: County Series

Map date: 1881

Scale: 1:2,500

Printed at: 1:2,500



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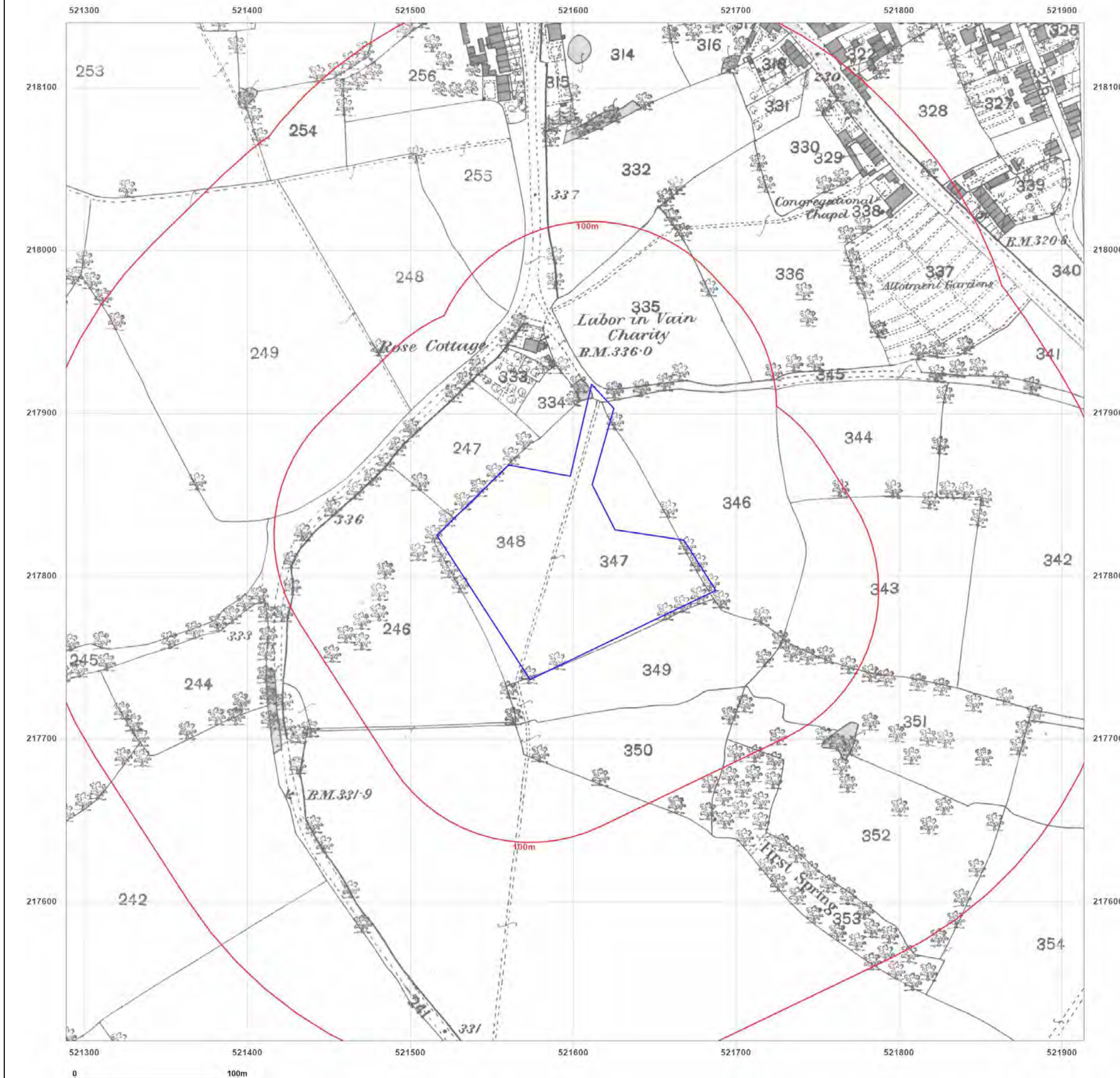


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Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



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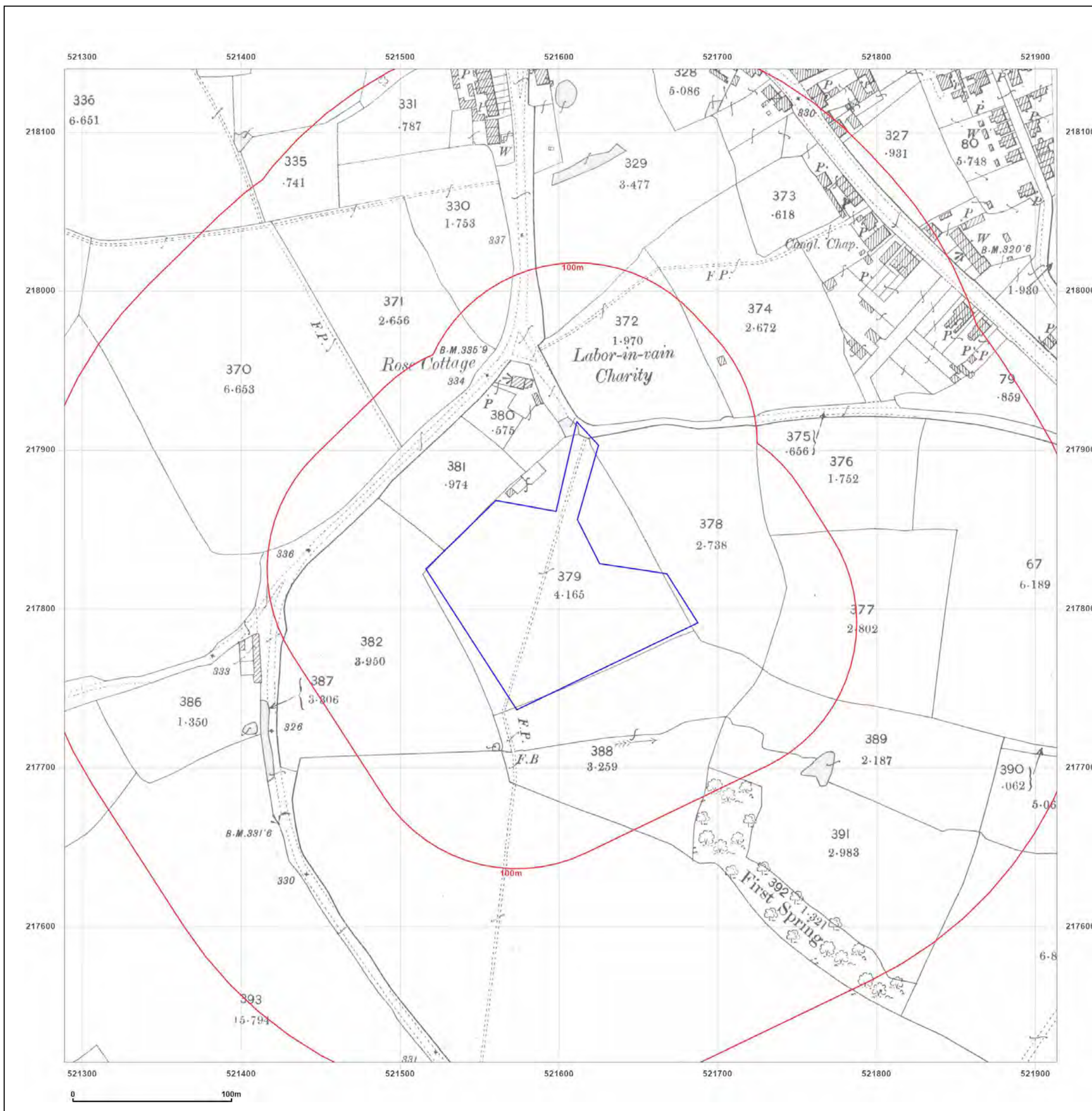


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Grid Ref: 521601, 217827

Map Name: County Series

Map date: 1924

Scale: 1:2,500

Printed at: 1:2,500



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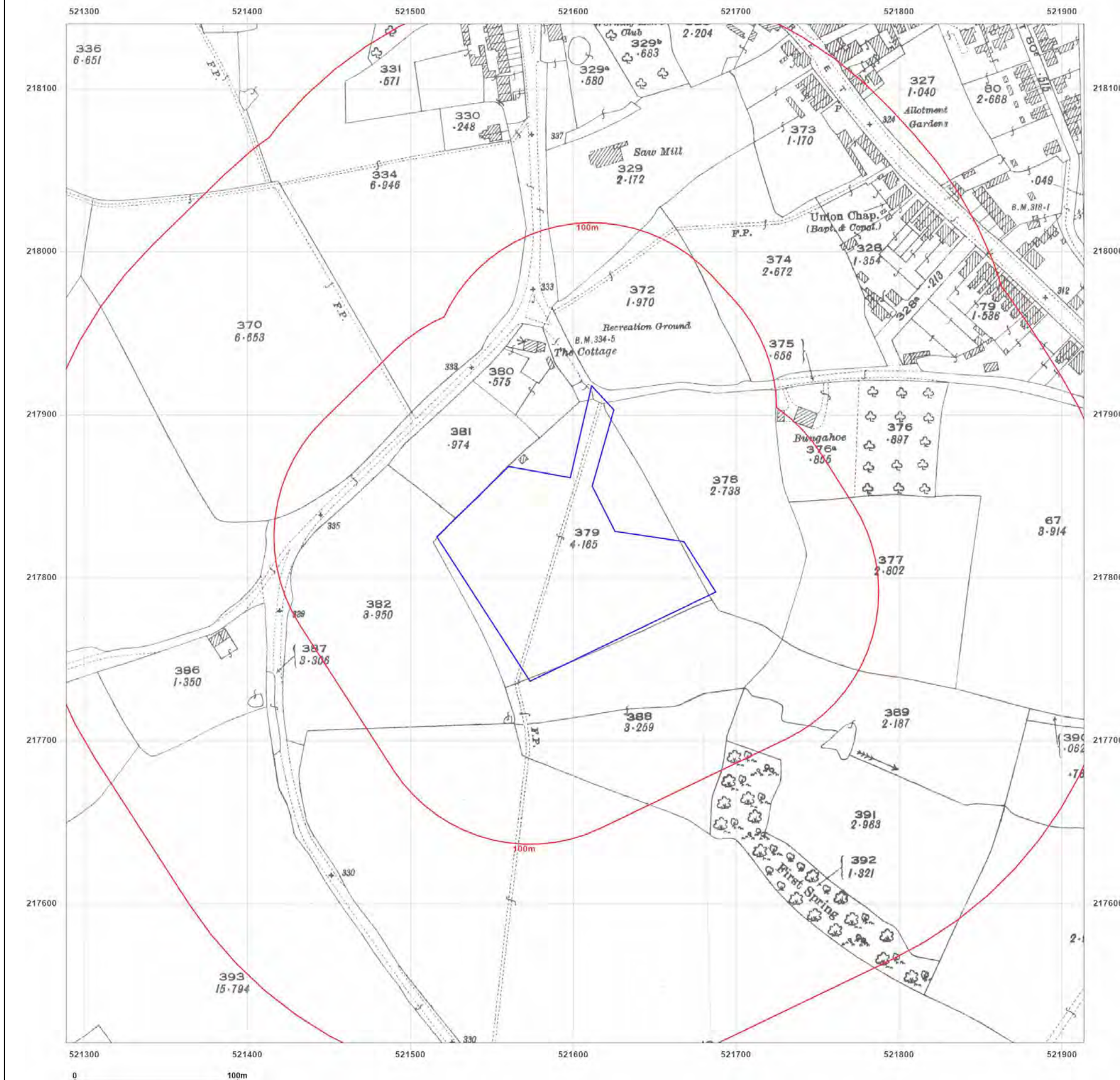


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Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: County Series

Map date: 1937

Scale: 1:2,500

Printed at: 1:2,500



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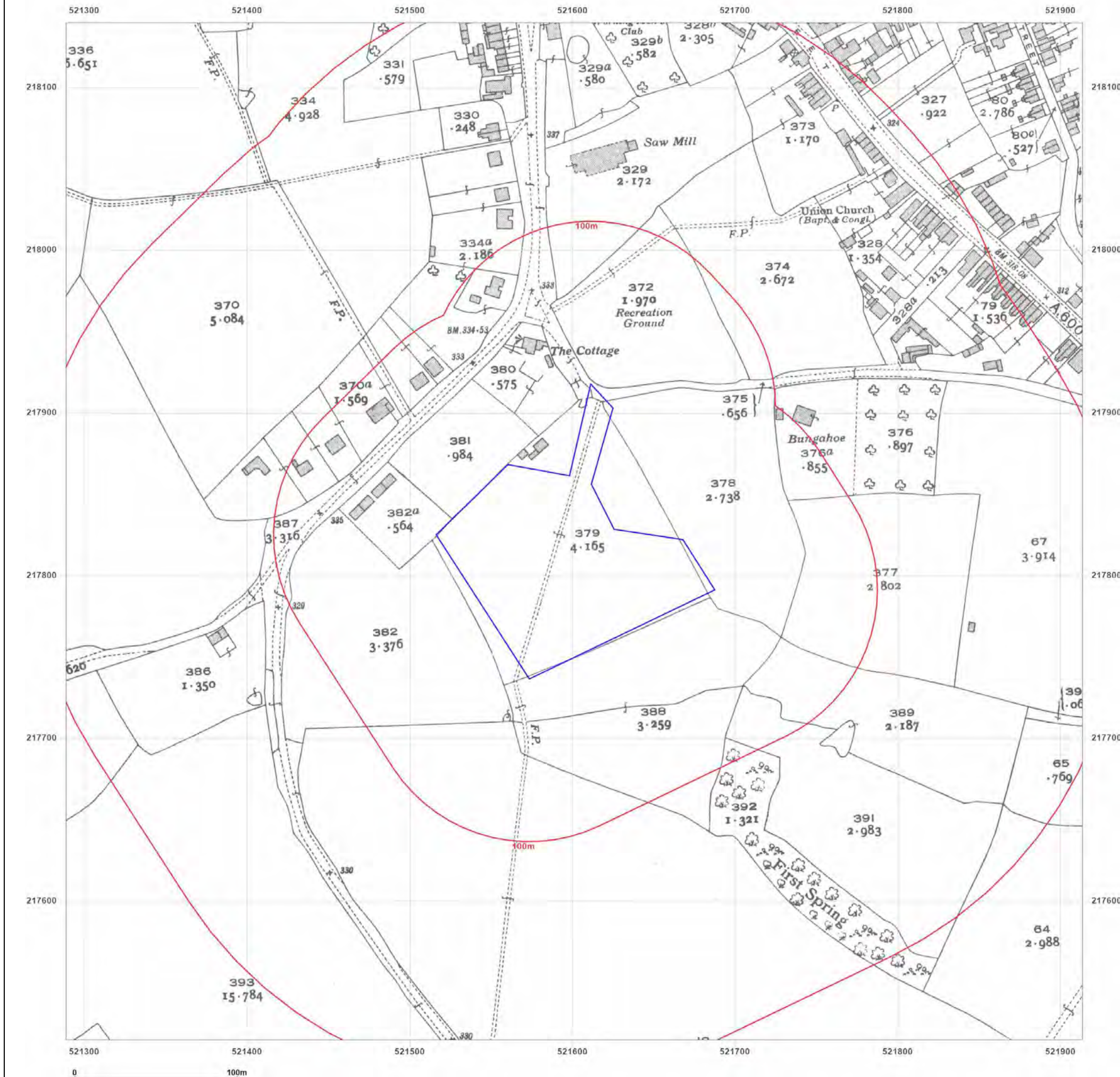


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Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1972

Scale: 1:2,500

Printed at: 1:2,500



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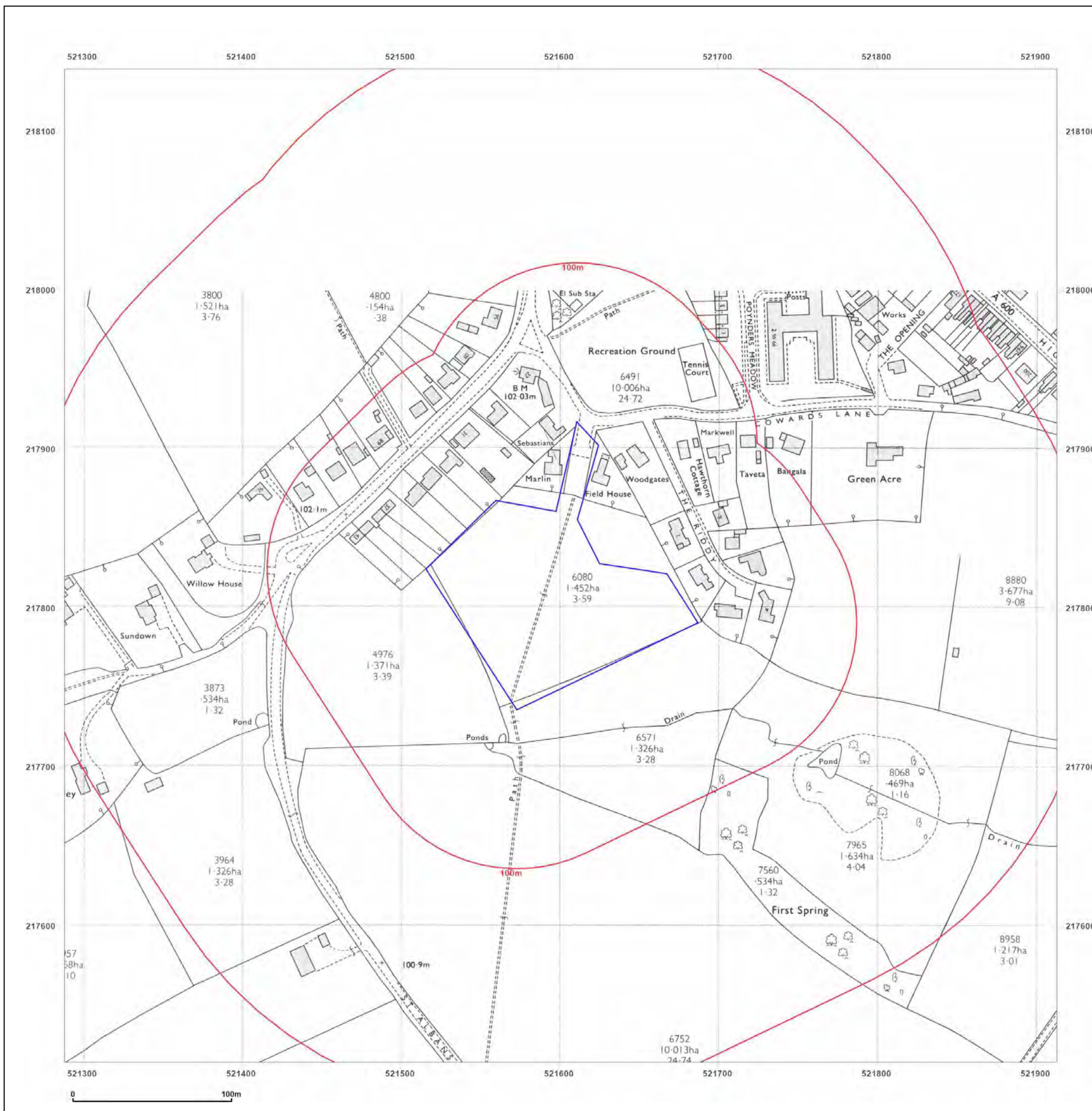


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Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1971-1972

Scale: 1:2,500

Printed at: 1:2,500



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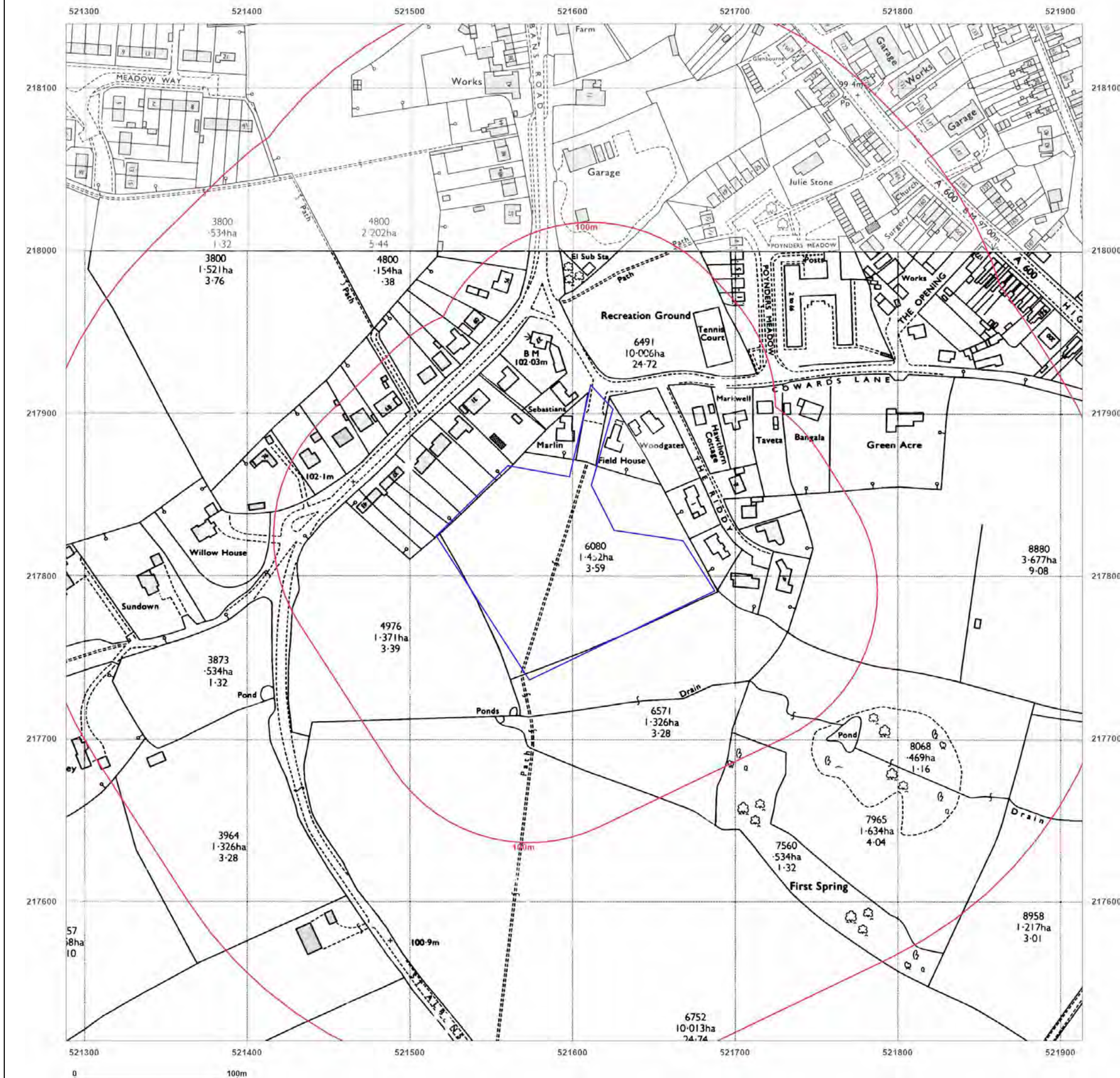


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Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1985-1990

Scale: 1:2,500

Printed at: 1:2,500



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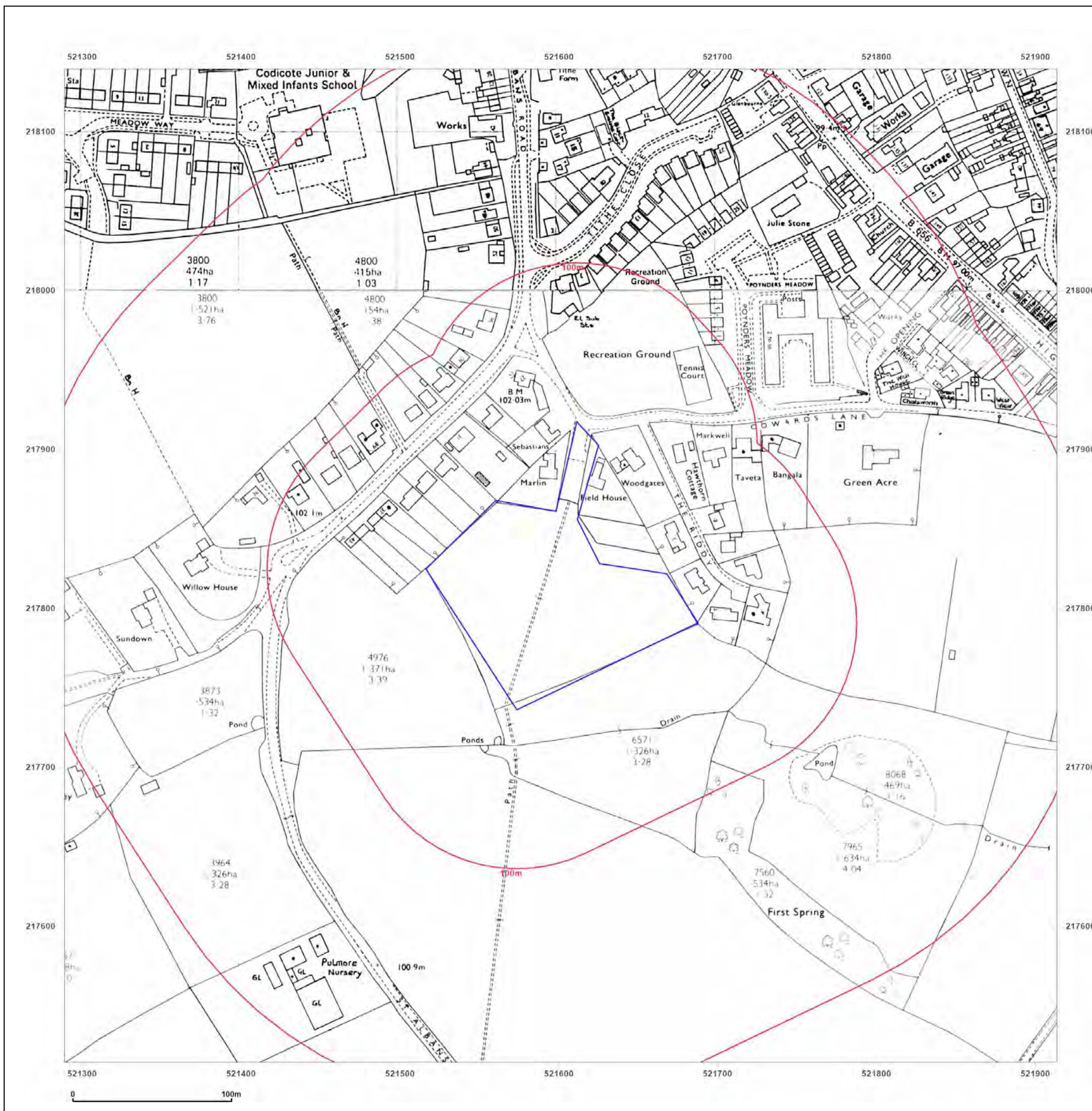


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Site Details:

COWARDS LANE, CODICOTE,
HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1990-1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1958
Revised 1982
Edition N/A
Copyright 1990
Levelled 1958

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

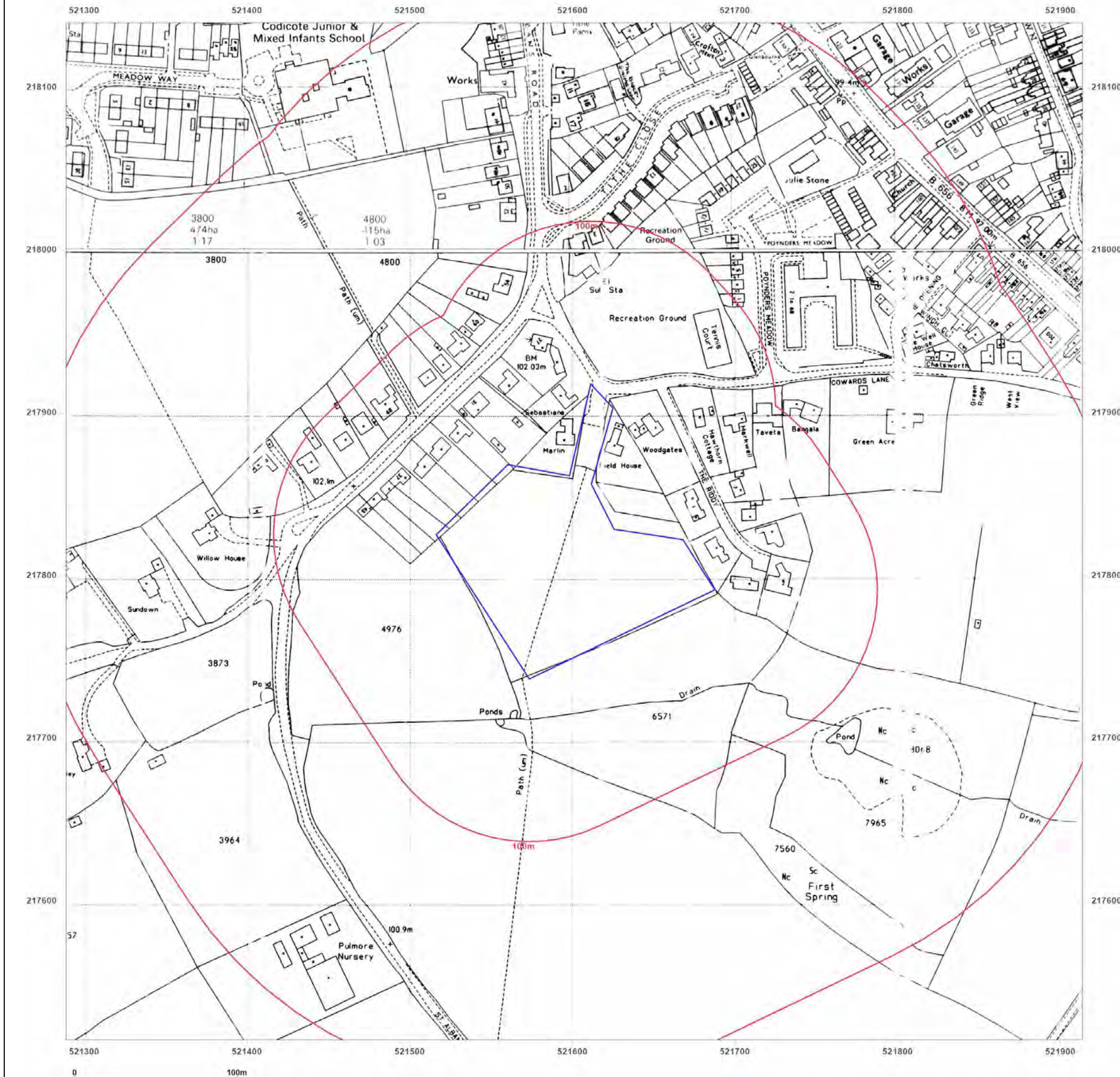


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Site Details:

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1993-1995

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
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Surveyed N/A
Revised N/A
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Site Details:

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1995

Scale: 1:2,500

Printed at: 1:2,500



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

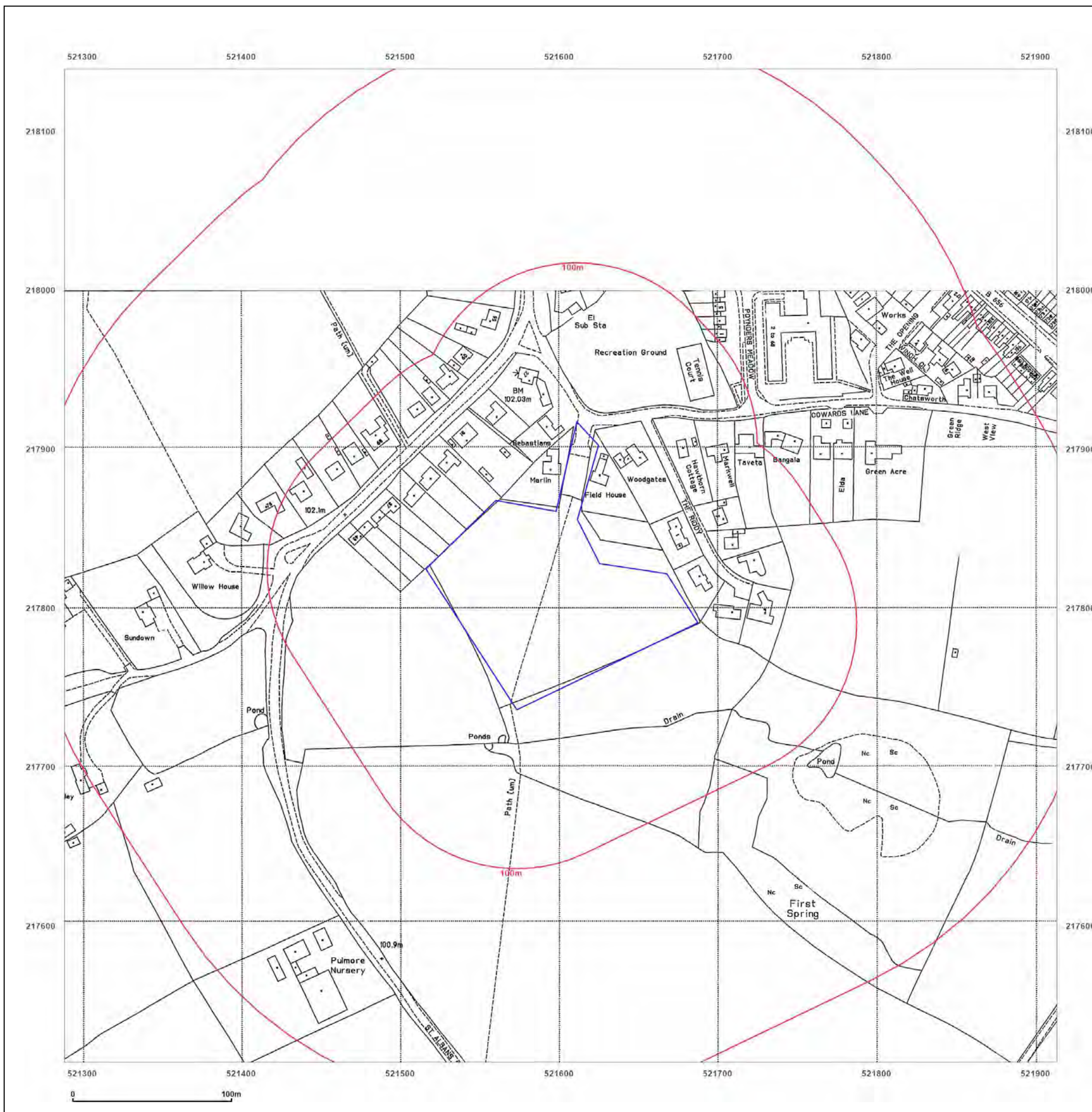


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Site Details:

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: County Series

Map date: 1884

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1881
Revised N/A
Edition 1884
Copyright N/A
Levelled N/A

Surveyed 1881
Revised N/A
Edition 1884
Copyright N/A
Levelled N/A

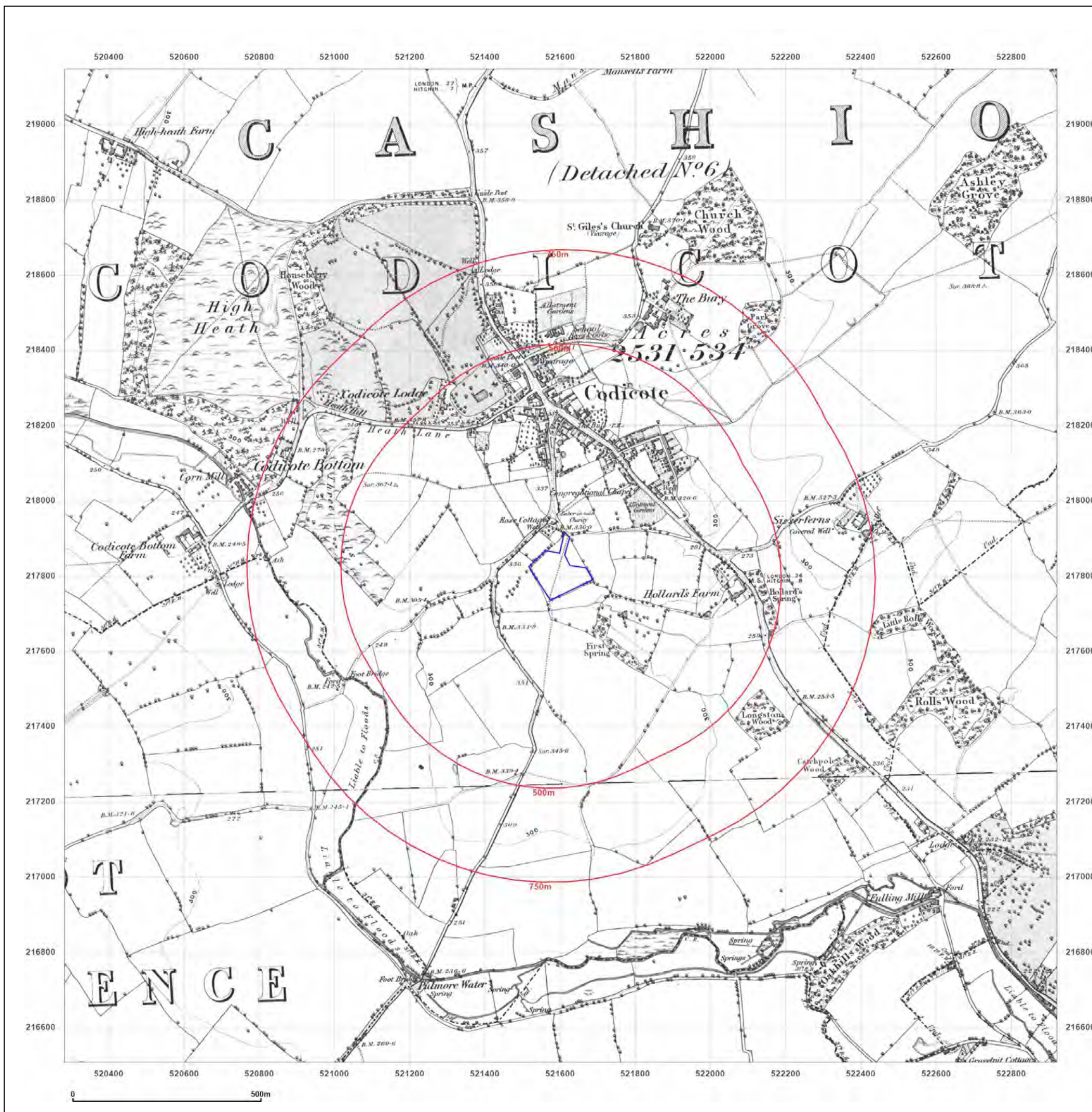


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Site Details:

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: County Series

Map date: 1922-1925

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1880
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1880
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1880
Revised 1922
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1880
Revised 1922
Edition 1925
Copyright N/A
Levelled 1922

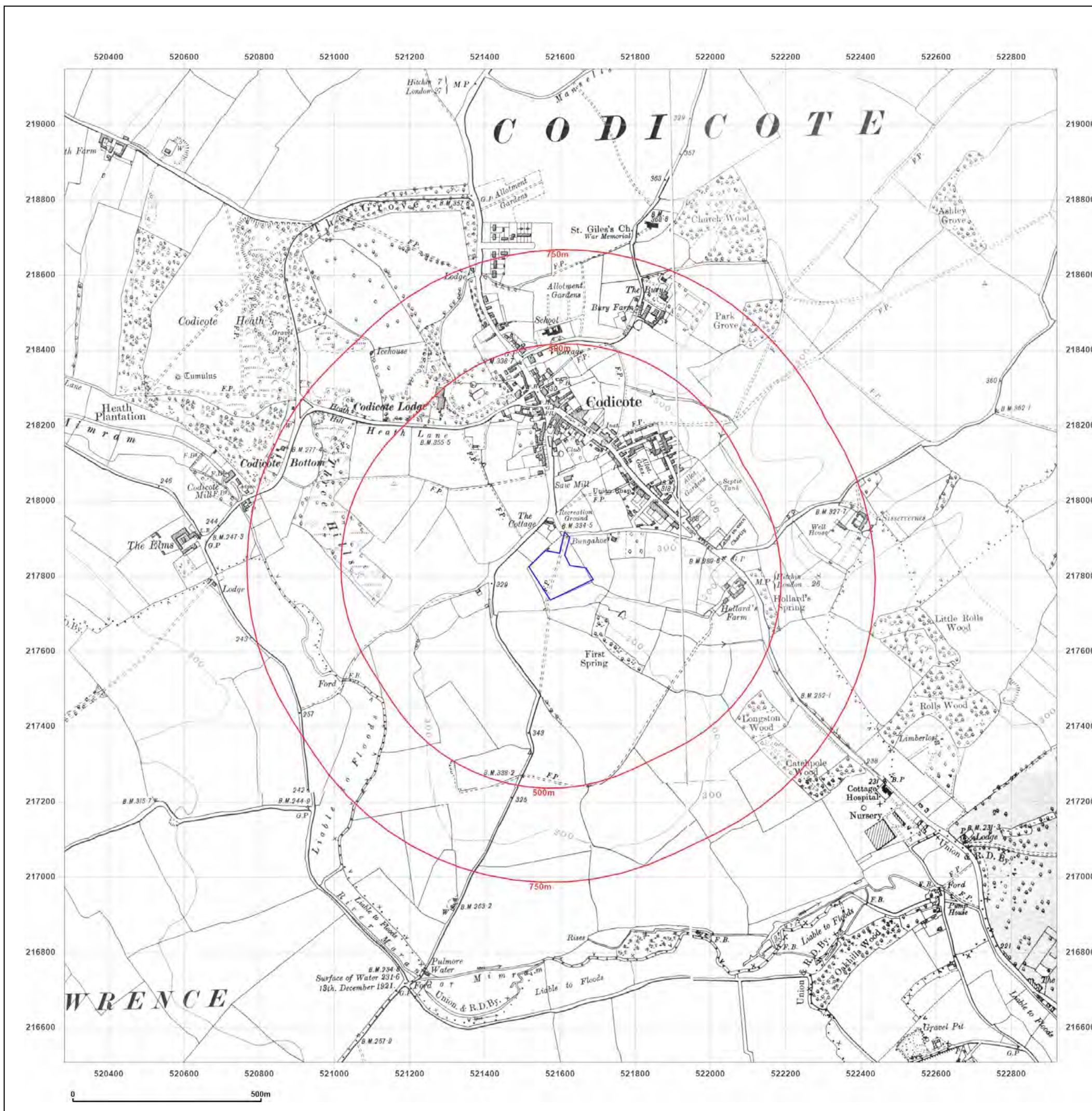


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Site Details:

COWARDS LANE, CODICOTE,
HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: County Series

Map date: 1946-1947

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1880
Revised 1946
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1880
Revised 1947
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1880
Revised 1946
Edition N/A
Copyright N/A
Levelled N/A

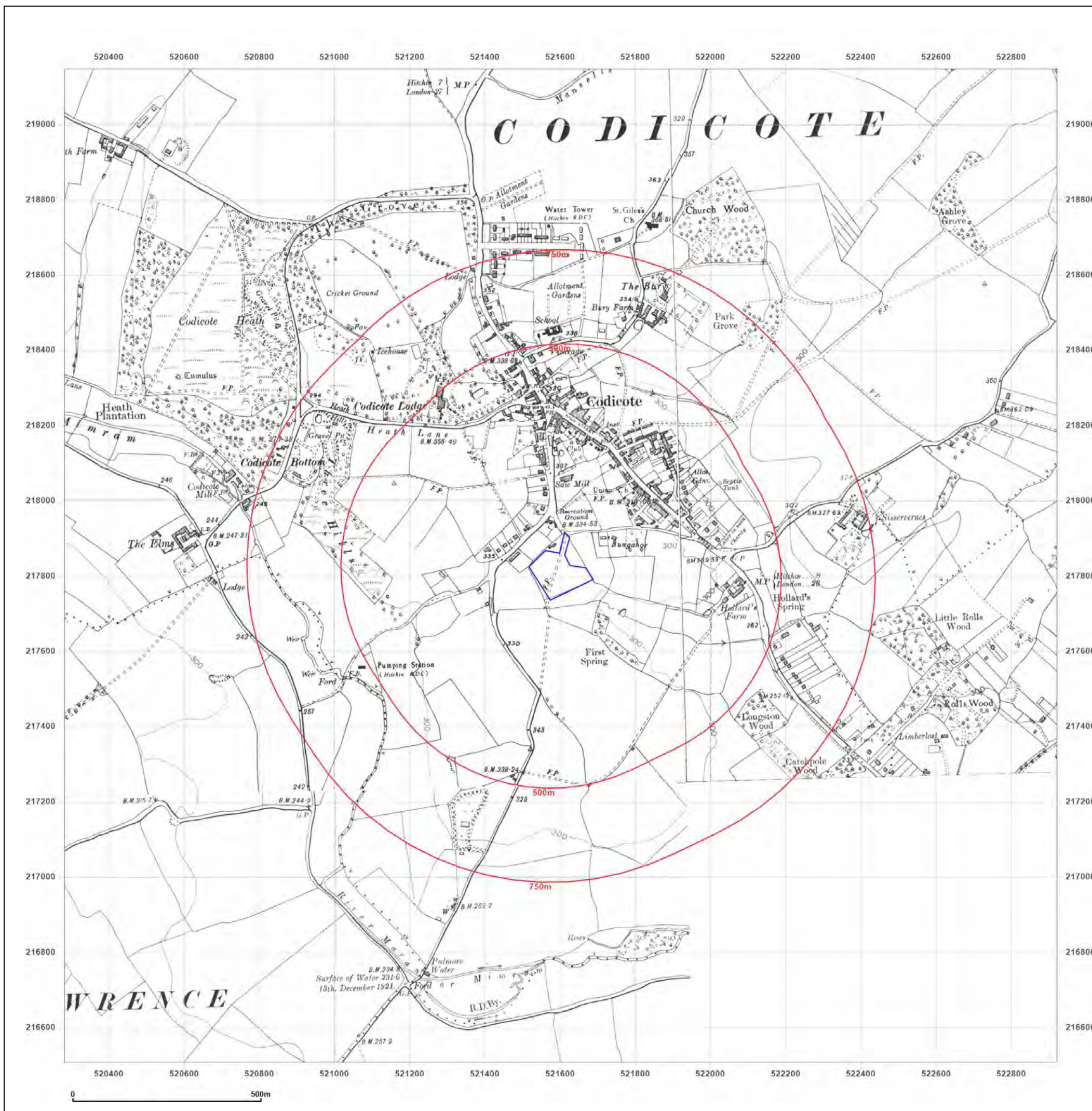


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Production date: 01 April 2025

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: Provisional

Map date: 1964

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised 1964
Edition N/A
Copyright 1960
Levelled N/A

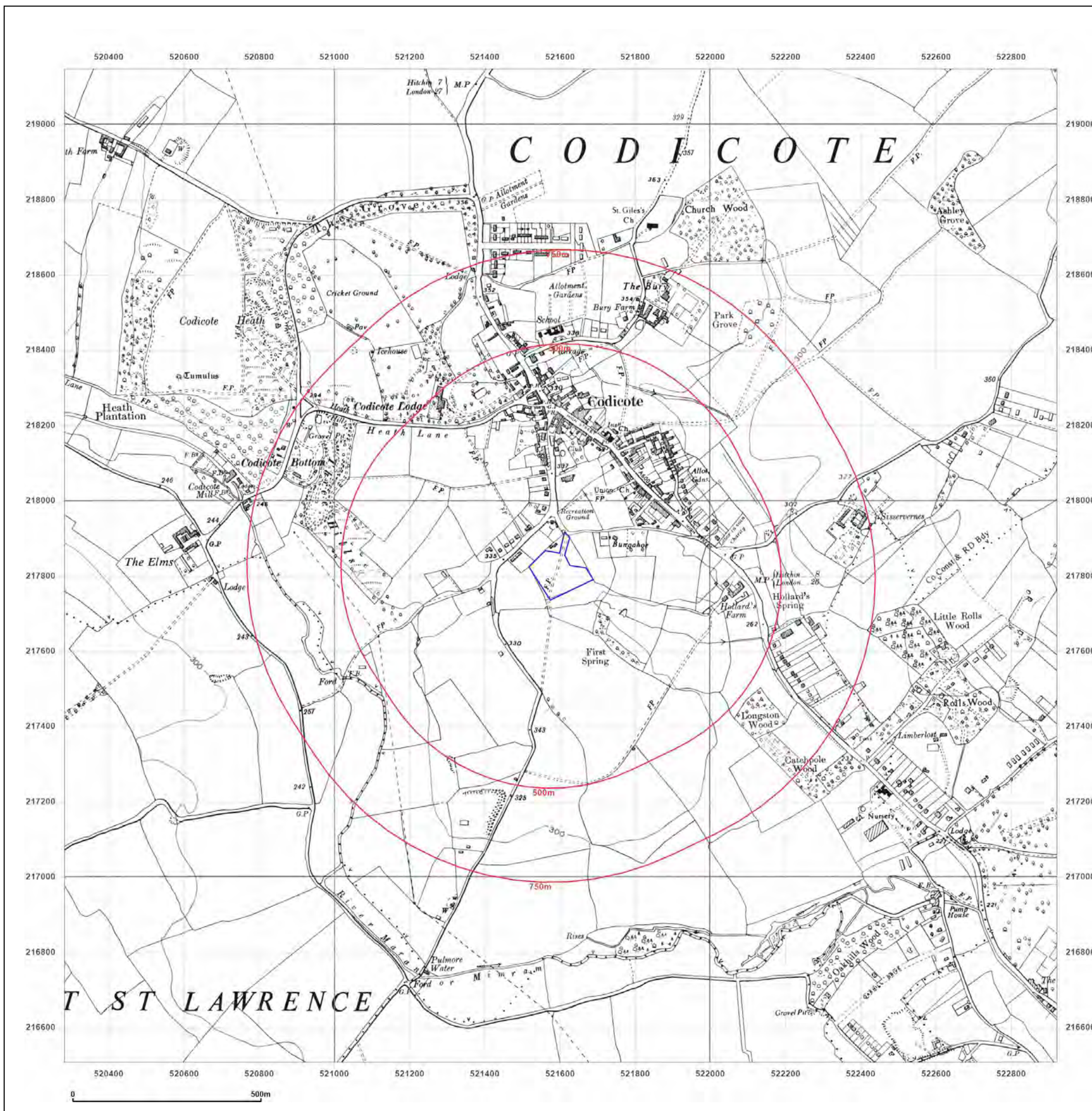


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Site Details:

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1975

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1871
Revised 1975
Edition N/A
Copyright 1975
Levelled 1973

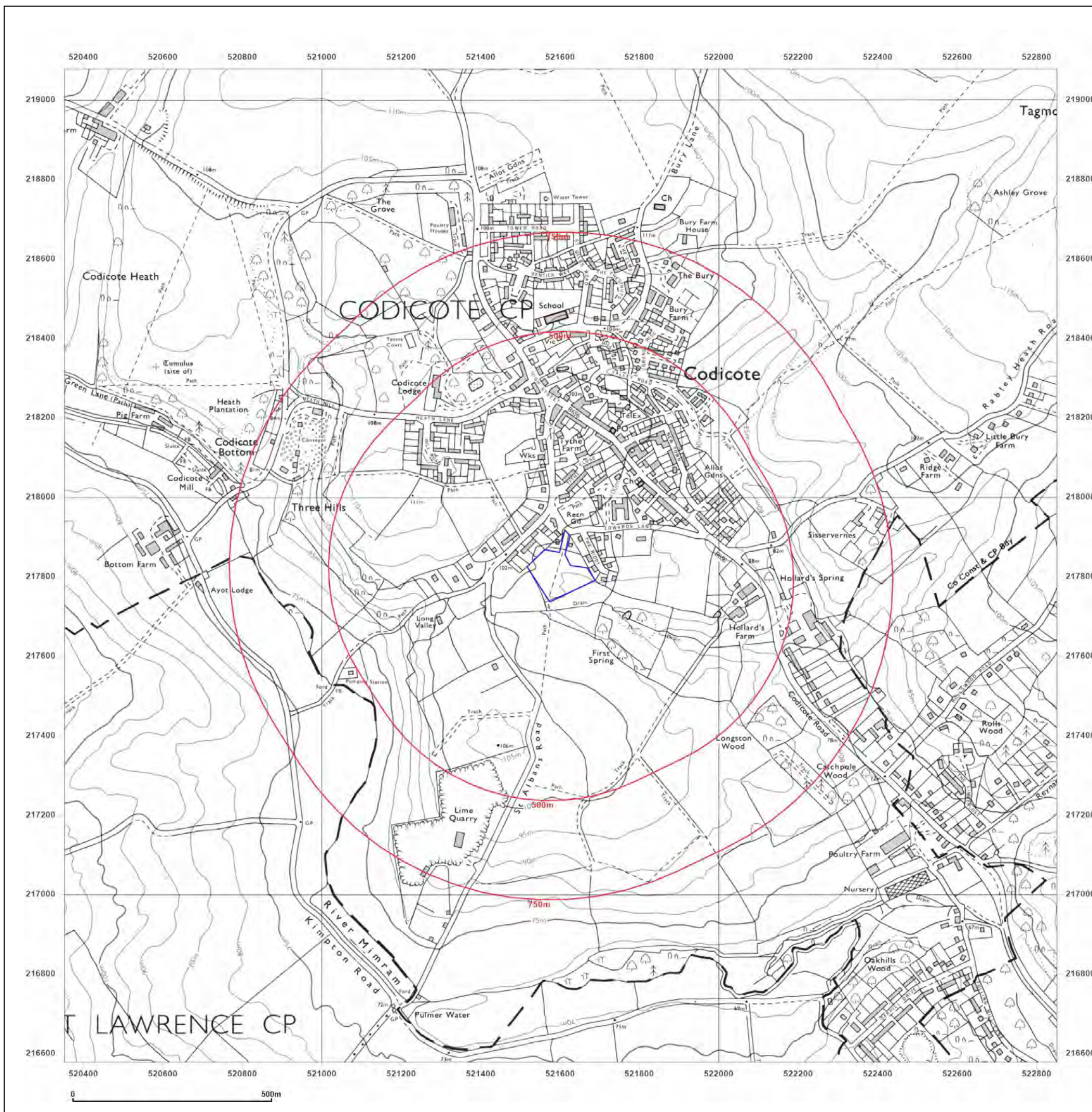


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Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 1992

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1973
Revised 1991
Edition N/A
Copyright 1992
Levelled N/A

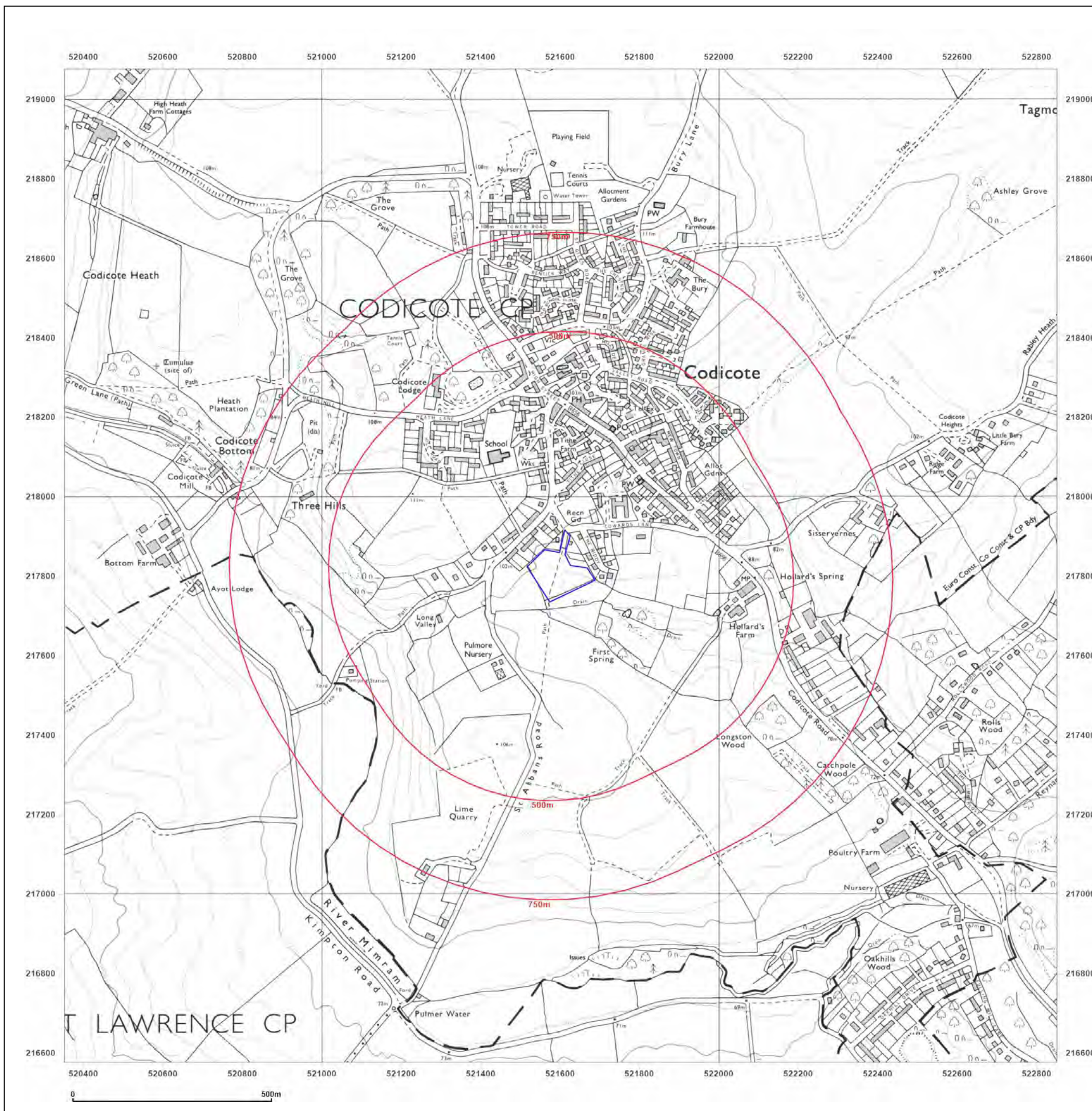


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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

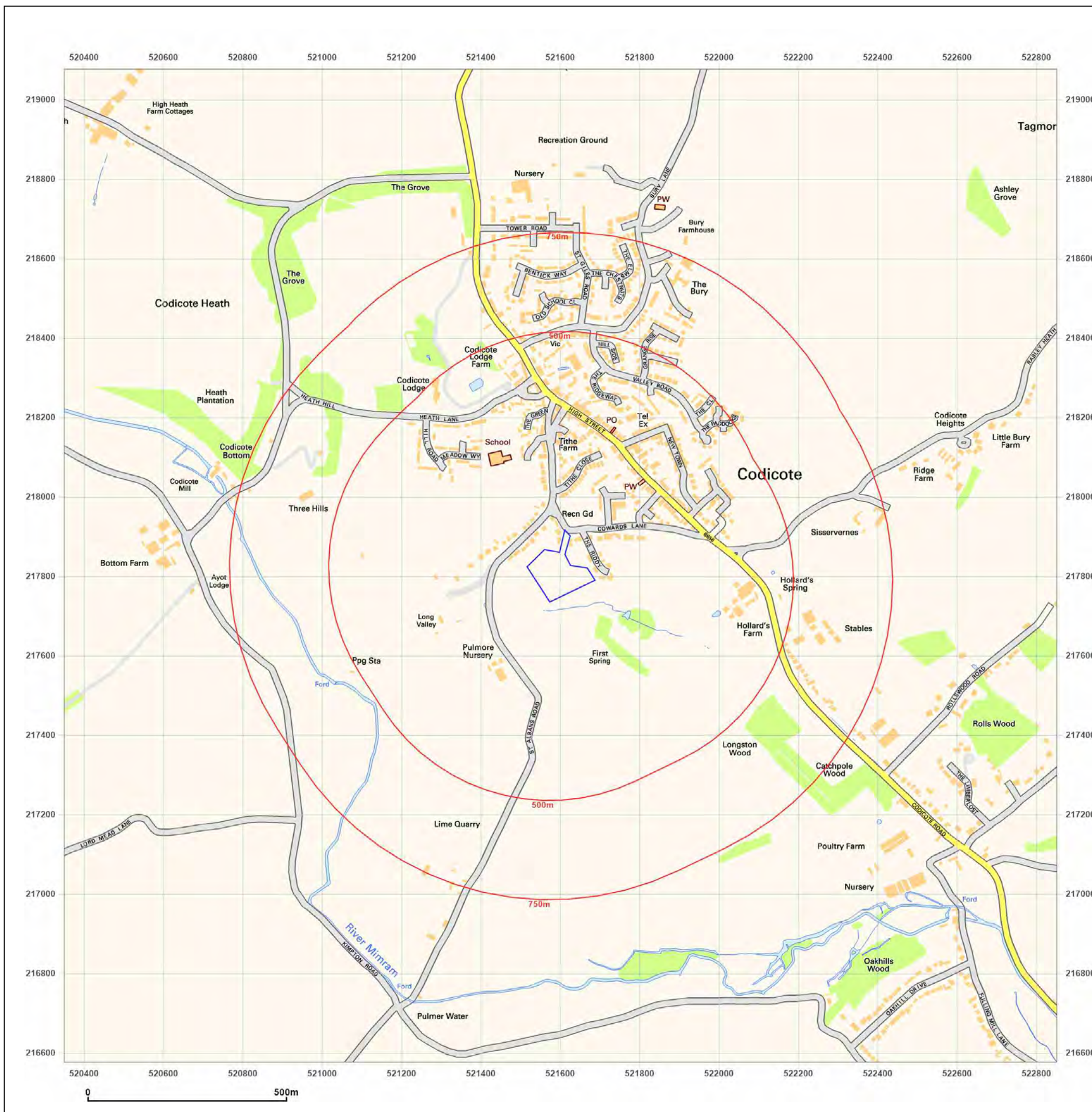


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Site Details:

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

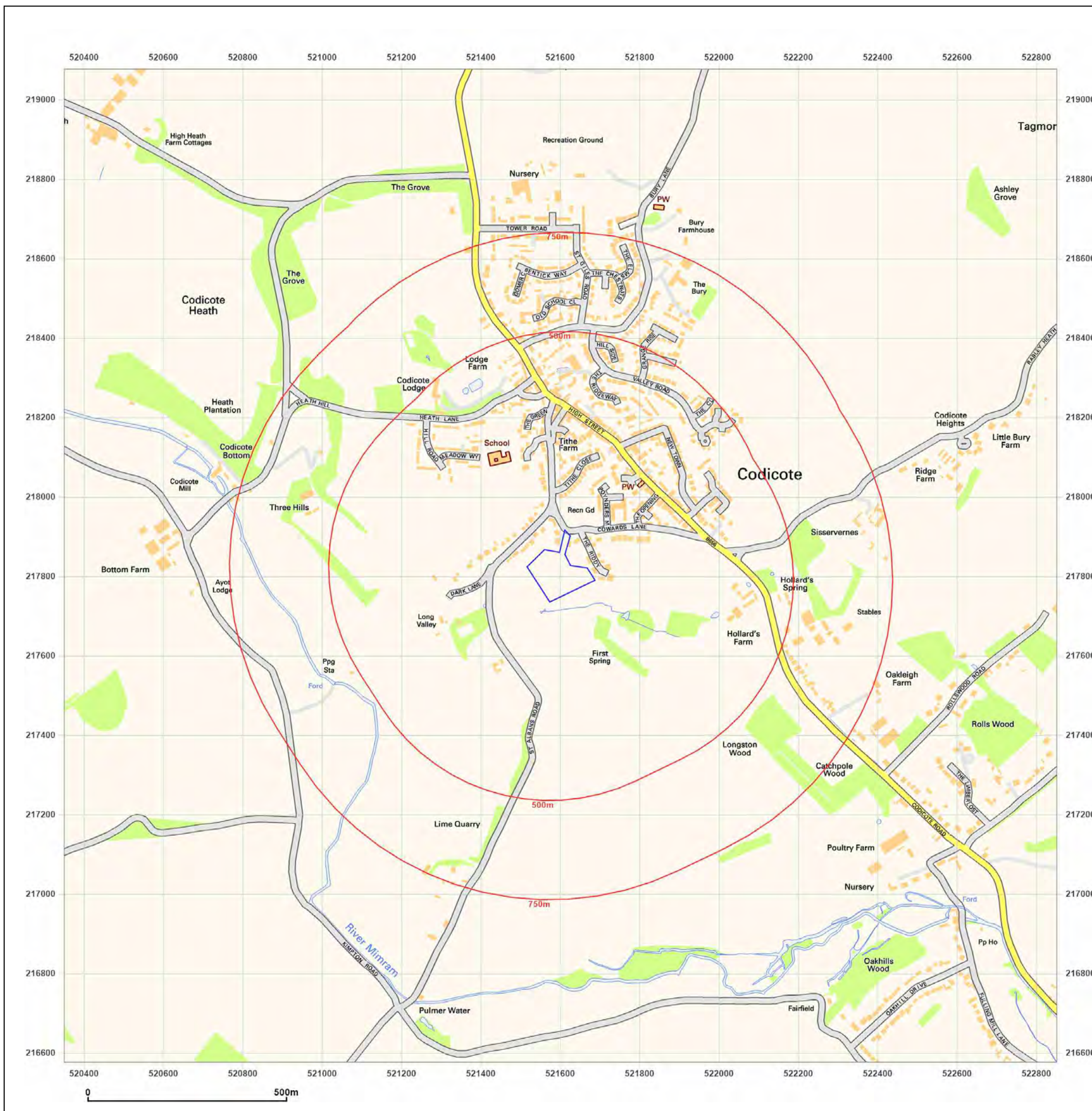


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Site Details:

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HERTFORDSHIRE, SG4 8UW

Client Ref: GI-201
Report Ref: GS-CRF-BY5-H9R-E8A
Grid Ref: 521601, 217827

Map Name: National Grid

Map date: 2025

Scale: 1:10,000

Printed at: 1:10,000

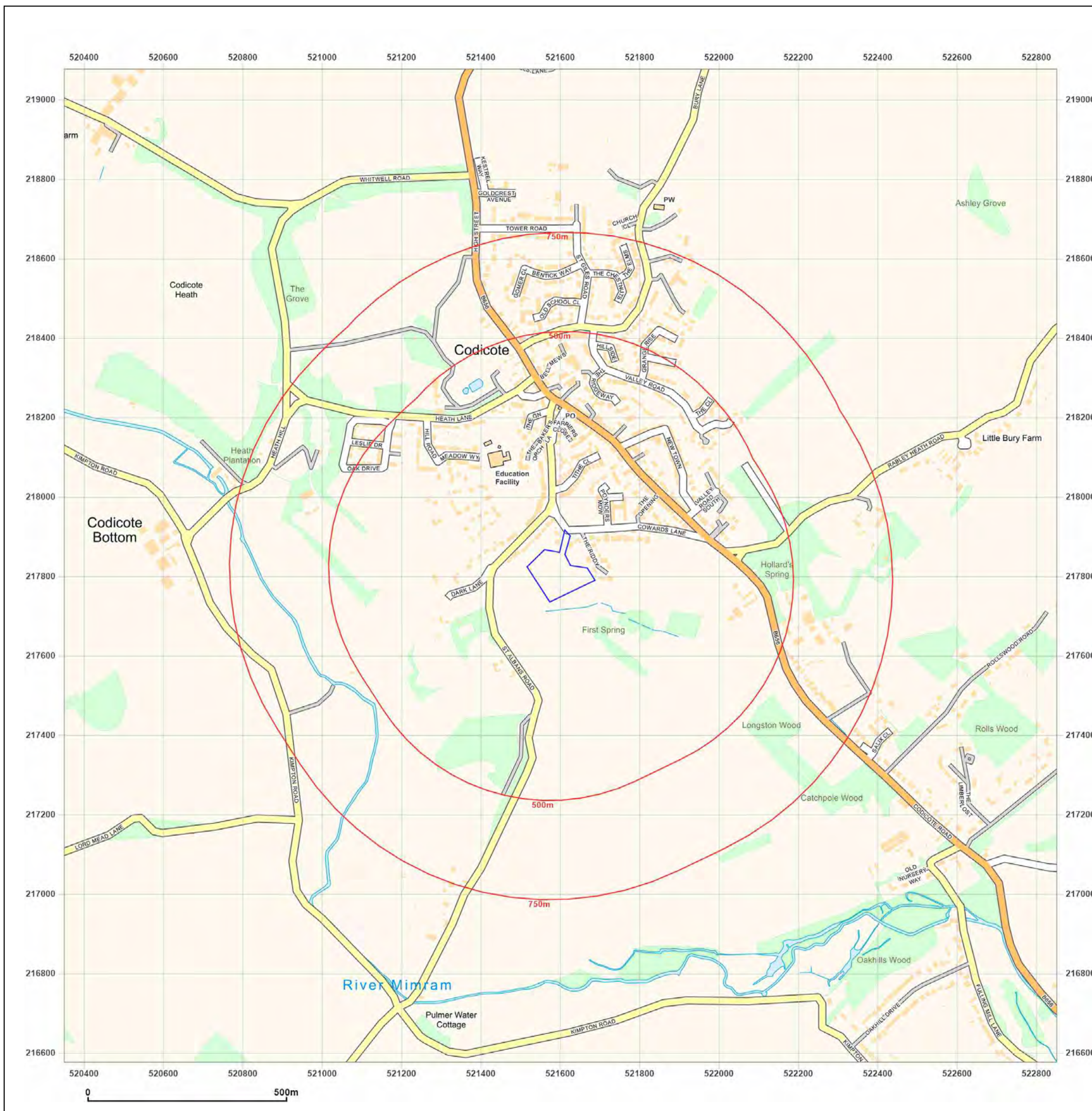


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APPENDIX D

BRITISH GEOLOGICAL SURVEY BOREHOLE LOGS

TL21NW/3-4*

TL 21 NW/3

TL21 NW3 2092 1824 Codicote Bottom, Codicote

Block C

Surface level (+84.7 m) +278 ft
Water not struck
February 1972

Overburden 1.8 m
Mineral 8.5 m
Bedrock 0.3 m +

LOG

Geological classification	Lithology	Thickness m	Depth m
	Soil	0.3	0.3
Glacial Sand and Gravel	Clay, pale brown with flint and quartz pebbles	1.5	1.8
	Pebbly Sand	8.5	10.3
	Gravel: fine and coarse, subangular to rounded flint and quartz Sand: medium		
Upper Chalk	Chalk	0.3 +	10.6

GRADING

Mean for deposit percentages			Depth below surface (m)	percentages						
Fines	Sand	Gravel		Fines	Sand		Gravel			
				$-\frac{1}{16}$	$+\frac{1}{16}-\frac{1}{4}$	$+\frac{1}{4}-1$	$+1-4$	$+4-16$	$+16-64$	$+64$
9	76	15	1.8-2.8	17	18	22	8	13	22	0
			2.8-3.8	10	46	40	1	1	2	0
			3.8-4.8	25	33	29	4	3	6	0
			4.8-5.8	7	5	23	26	21	18	0
			5.8-6.8	7	5	49	10	10	9	0
			6.8-7.8	1	19	69	4	4	3	0
			7.8-8.8	5	15	67	4	4	5	0
			8.8-9.8	3	11	75	6	4	1	0
			9.8-10.3	9	8	73	6	3	1	0
			Mean	9	19	49	8	7	8	0

TL 21 NW/4

TL21 NW4 2165 1782 Codicote Village

Block C

Surface level (+95.4 m) +313 ft
Water not struck
April 1972

Waste 12.0 m
Bedrock 0.2 m +

LOG

Geological classification	Lithology	Thickness m	Depth m
	Soil	0.3	0.3
Boulder Clay	Clay, brown with some flint pebbles	0.9	1.2
	Clay, grey-brown, sandy, chalky, some flint pebbles	6.6	7.8
	Sand: medium, brown	0.2	8.0
	Clay, grey-brown, chalky, some flint pebbles	1.8	9.8
Glacial Sand and Gravel	'Clayey' gravel	2.2	12.0
	Gravel: fine with coarse Sand: medium, some brown clay and chalk in matrix		
Upper Chalk	Chalk, white, soft	0.2 +	12.2

APPENDIX E

RISK ASSESSMENT METHODOLOGY

Available on request