arbtech

**Preliminary Risk Assessment: Desk Study**

**S. Lewis**

**The Old Mission**

**Tongue End**

**Spalding**

**Lincolnshire**

**PE11 3JJ**

**22 October 2025**

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## Executive Summary

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|---|---|
| **Brief** | This report presents a preliminary Phase 1 assessment of potential land contamination at the site at Tongue End, Counter Drain Drove, near Spalding, Lincolnshire. The assessment evaluates historical and current site uses, environmental setting, and potential exposure pathways to identify risks to human health, controlled waters, and the wider environment. |
| **Site Use & Surrounding Area** | The site is accessed from Counter Drain Drove, containing three structures: a workshop to be retained (with minor shortening), and two smaller buildings proposed for demolition. The site is currently used for the storage of materials and tools associated with small-scale workshop activities. Surrounding land is predominantly agricultural, with sporadic residential properties and drainage channels including The Delph Drain and the River Glen approximately 500m northwest. |
| **Environmental Setting** | The site is underlain by Barroway Drove Beds (Clay and Silt) of low permeability, overlying Oxford Clay Formation (Mudstone). Both units are classified as Unproductive Aquifers, and the site does not fall within a Source Protection Zone. The nearest surface water feature is The Delph Drain, located on site, with the River Glen situated approximately 500m northwest. The site lies within Flood Zone 3, indicating medium to high fluvial flood risk. Groundwater vulnerability is low and the risk to controlled waters is minor. |
| **Contamination Potential Sources** | Potential contamination sources are limited to historic and current small-scale workshop use, which may have introduced localised hydrocarbons, metals, or minor solvent residues into shallow soils or made ground. Additional low-level sources may include the former telephone exchange adjacent to the site and nearby agricultural land use. No historical landfilling or significant industrial operations have been recorded within the site boundary. Overall, contamination potential is low and spatially limited. |
| **Development Considerations** | Construction workers may be exposed to shallow soils during demolition or shallow excavations for new residential foundations or service runs. Appropriate PPE, dust control, and material management are recommended. Retention of the main workshop reduces exposure potential. Ground gas and vapour risks are considered negligible under current conditions. Excavated soils should be classified and handled in accordance with waste and reuse guidance. Any unexpected staining or odour should be reported to a suitably qualified professional. Any imported soils for residential garden areas should be chemically tested and verified as suitable for use in accordance with BS 3882:2015, EA guidance, and relevant soil verification procedures. |
| **Uncertainty and Data Gaps** | The assessment is based on desk study data, historical mapping, environmental databases, and a site visit. No intrusive ground investigation, soil, or groundwater sampling has been undertaken to date. This introduces uncertainty in relation to shallow soils beneath existing hardstanding and within the footprint of the westerly building. A proportionate targeted investigation is recommended post-demolition to confirm conditions and support the proposed redevelopment. |
| **Recommendations** | A targeted site investigation should be undertaken following demolition of the south westerly building to confirm the presence or absence of contamination within shallow soils in proposed residential garden and foundation areas. The investigation should include targeted sampling (0–1m), laboratory testing for hydrocarbons, PAHs, metals, VOCs (if odour/staining present), asbestos screening, and visual/olfactory assessment during works. Subject to results, the site is considered suitable for the proposed residential use with standard construction controls in place. |

**This is intended as a summary only. Further detail and the limitations of the assessment is provided within the main body of the Report.**

# Contents

# Introduction

## Background

Arbtech Consulting Ltd (Arbtech) was instructed by Mr. S. Lewis to produce a Preliminary Geo-Environmental Risk Assessment to inform a planning proposal with South Holland District Council ref.H03-0896-24 for *Demolition of buildings except for one (to be reduced in length) and used for storage of equipment in connection with applicants groundworks business and erection of one self-build/custom build dwelling with associated works* at the site known as The Old Mission, Spalding, Lincolnshire, PE11 3JJ.

A Phase I report is required to assess the historical use and present condition of the site, determine the extent and nature of any contamination risk, and identify potential risks to future users of the land, neighbouring properties, workers, and other offsite receptors. This assessment will ensure that the development can be carried out safely without unacceptable risks to workers, neighbours, controlled waters, property, or ecological systems with suitable recommendations.

## Objectives

The objectives of the Arbtech Consulting preliminary geoenvironmental site assessment was to undertake a Phase I Desk Study for the site. Guidance set out in LCRM [1], GPLC1-3[2] and the National Planning Policy Framework (NPPF)[3] states that a Preliminary Risk Assessment with a site reconnaissance is required as a minimum to ascertain if there is a potential contamination risk. If contamination is a potential, then site investigation works are carried out to establish a viable pollutant linkage to assess the potential risks to human health and controlled water receptors. Based on the findings of this report, an appropriate site investigation can be derived, if required, once planning approval has been granted.

1 EA (2020). Land contamination risk management (LCRM).

2 EA (2016). Guiding Principles for Land Contamination. GPLC1- Risk Assessment and Conceptual Models GPLC 2. Site Investigation and Good Practice GPLC 3

3 DCL (2025). National Planning Policy Framework. Department of Communities and Local Government.

## Scope of Works

- Review of the environmental setting of the Site, including the current use / status of the Site and surrounding area, and review of the geology, hydrogeology and hydrology;
- Review of the historical activities of the Site and surrounding area;
- Review of regulatory information relating to the Site;
- Review of the online planning records for the Site;
- Consult and review information from the Local Authority in relation to Part 2A of the 1990 Environmental Protection Act; and
- Develop an outline Conceptual Site Model and undertake a Preliminary Risk Assessment with respect to potential contamination focussed on the proposed end use of the Site.

In completing this Assessment, Arbtech Consulting Ltd has utilised the following data sources and third-party information:

- Current and Historical Ordnance Survey (OS) maps;
- British Geological Survey (BGS) data;
- Environment Agency (EA) online data; and Review of third-party environmental reports.

# Site Context

## Site Information

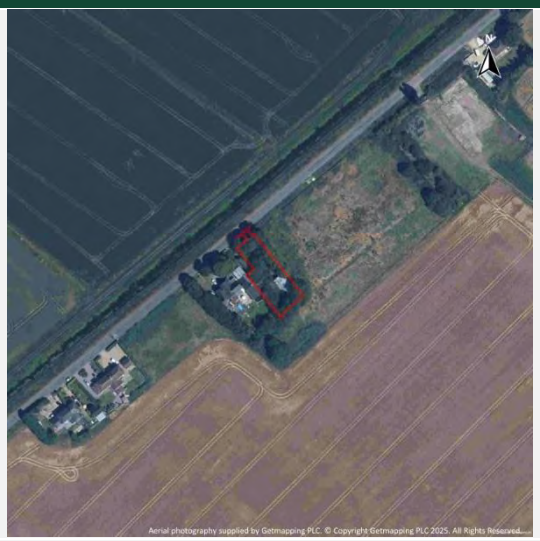

Fig.1 2022 Aerial Photograph
Contains Data from, © 2025 Groundsure Insights (Appendix 3)

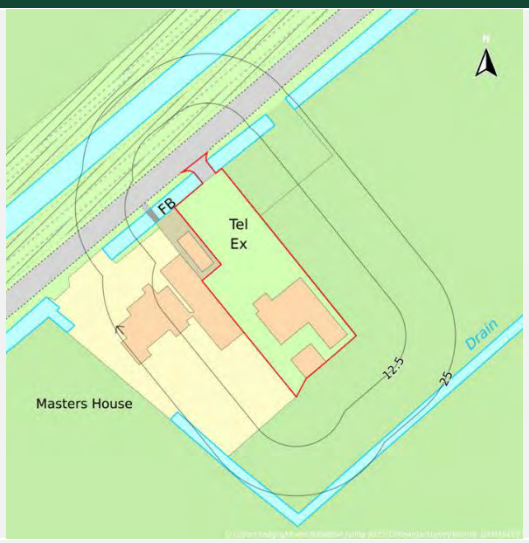


Fig 2 OS Mastermap site plan
Contains Data from, © 2025 Groundsure Insights

| | | | |
|---|---|---|---|
| **Site co-ordinates:** | (NGR)<br>516569 319081 | **Site Area:** | 0.11ha |
| **Site Location** | The application site is located to the northeast of Tongue End, to the south of Counter Drain Drove oriented northeast to southwest. The River Glen is c.500m to the northwest. The subject area is within a densely rural area of Lincolnshire. | | |
| **Current Site use** | The site is roughly rectangular / 'L'-shaped oriented northwest to southeast and is relatively level. The site is accessed from Counter Drain Drove to the north over the Delph Drain. Three structures are present to the south of the site. A rectangular workshop building is located to the southeast of the site, oriented northwest to southeast, which will be retained and shortened as part of the plans for the site. The workshop is currently used for storage of building materials and tools. The two remaining structures, a rectangular brick building southwest of the workshop (connected via a covered area) and a smaller rectangular shed towards the south corner, are both to be demolished. The majority of the site ground surface is crushed hardcore, with two small areas of hardstanding northwest of the workshop and towards the western corner. Two stone heaps are noted to the north of the site. Sparse vegetation is noted across the site, particularly to the south of the site along the southeast and southwest boundaries.<br><br>Representative photos from the site reconnaissance carried out on 19th September 2025 are presented as Appendix 2. | | |
| **Surrounding Area features** | The site is situated within a predominantly rural context, surrounded by agricultural land in all directions. There is some light residential use to the northeast and southwest along Counter Drain Drove. A number of surface water features are within close vicinity, surrounding the site. | | |

# Data Review

| Historical Features | |
|---|---|
| **Strategy** | The Groundsure Report provides a database of environmental information held by various statutory bodies including the EA, Local Authority (LA), Health & Safety Executive (HSE) and HPA amongst others. A full copy of the Groundsure Report is provided in Appendix 3, and the most relevant information is summarised below.<br><br>The historical development of the Site and surrounding area has been assessed through a review of available historical OS maps and Google Earth historical satellite imagery. A summary of the key historical Site uses and developments in the surrounding area is presented below. Copies of pertinent historical maps are included as Appendix 4. |
| **Historical Features On-Site** | Historically, based on the earliest available mapping dated 1888 the site features as part of a wider plot of open land. Southwest of the site is an adjacent plot identified as a School. A canal is noted to the northwest, identified in later mapping editions as 'The Delph'.<br><br>1950 mapping: a 'T'-shaped building is noted to the southeast of the site, oriented northeast to southwest.<br><br>1979 mapping: the site is identified as St Michael's Church (C of E). A large roughly rectangular building, oriented northwest to southeast, is noted to the southeast corner of the site, labelled as the 'Hall'. A smaller roughly rectangular building, also oriented northwest to southeast, is shown adjacent southwest of the 'Hall'. A small rectangular building, oriented northeast to southwest, is noted on the southeast boundary.<br><br>2000 satellite imagery: in addition to the existing buildings on site, a small rectangular building is noted to the west corner of the site, oriented northeast to southwest.<br><br>2016 satellite imagery: the building to the west corner is no longer present. No other significant changes are noted, and the site is consistently labelled as St Michael's Church and shows current configuration. |
| **Potentially Contaminative Historical Features Off-Site** | Limited potential sources of contamination identified on the subject site and the surrounding area. Recorded historical industrial land use within 100m, include:<br><br>5m southwest Telephone Exchange 1982 |

| | |
|---|---|
| **Implications for historic Land Contamination Risk** | Limited sources of potential historic contamination have been identified on the subject site itself and within close proximity.<br>The site itself has historically been associated with St Michael's Church, with buildings noted from c.1950. Recent site use includes a village hall, and subsequently a workshop with hardstanding surfacing used for steel fabrication with an associated office and WC. 1No. Historical industrial land use as a telephone exchange is record is recorded within 100m.<br>Generally, the wider area is noted for its agricultural activity with some light residential land use. This context will be further assessed in the risk assessment. |

## Environmental Setting

| Feature | | Information | |
|---|---|---|---|
| **Published Geology** | **Artificial** | No Artificial and Made Ground recorded on site. | |
| | **Superficial** | Superficial geology is recorded on site as Barroway Drove Beds – Clay and Silt. Noted as mixed flow type with low to very low permeability.<br>No landslip recorded within 500m. | |
| | **Bedrock** | Bedrock geology is recorded as Oxford Clay Formation - Mudstone. Noted as fractured with low to very low permeability.<br>No records of Bedrock faults or any other linear features present within 500m. | |
| | **BGS Logs** | 3No. BGS logs within 250m - the nearest is 146m northeast Ref. TF11NE22 for a mineral assessment from 1979 with water strike recorded at 4.30mbgl and standing at 1.50mbgl. Recorded strata is consistent with BGS logs, with Barroway Drove Beds (buttery Clay) recorded to 3.00mbgl, becoming sandy with Peat. Oxford Clay bedrock is recorded to a final completed depth of 7.40mbgl. | |
| **Hydrogeology** | **Aquifer Designation** | **Superficial** | Unproductive |
| | | **Bedrock** | Unproductive |
| | **Source Protection Zone (SPZ)** | The site is not within a Source Protection Zone.<br>The site is in an area of unproductive aquifer. Bedrock shows well connected fractures. | |

## Environmental Setting

| Feature | | Information |
|---|---|---|
| | **Groundwater Abstractions** | 2No. recorded groundwater abstractions within 1km – both for General Farming and Domestic. The nearest is historical 245m northeast. The nearest active is 854m west.<br>No potable abstractions within 2km. |
| **Hydrology** | **Surface Water Abstractions** | 9No. surface water abstractions within 1km - the nearest is active on site for Spray Irrigation – Direct. |
| | **Nearest Surface Water** | 8No. surface water features and 19No. Water Network (OS Master Map) within 250m - the nearest is on site for inland river not influenced by normal tidal action (The Delph Drain). Underground and on ground surface.<br>1No. entry on site for WFD Surface water body catchments for Vernatt's Drain. |
| | **Water Quality Data** | Vernatt's Drain has an overall moderate rating.<br>No Groundwater body is recorded on site. |
| | **Flooding** | 5No. entries recorded within 50m for risk of flooding from rivers or sea – on site medium, 0-50m from site, high.<br>No historical flood events, no flood defences or areas benefiting from flood defences, and no flood storage areas.<br>Flood Zone 2 recorded 4m northwest (fluvial/tidal models).<br>Flood Zone 3 recorded on site (fluvial/tidal models).<br>Surface water highest flooding risk on site is 1 in 1000 year, 0.1m - 0.3m, and in 50m – 1 in 30 year, 0.1m - 0.3m.<br>Highest groundwater flooding risk on site and within 50m – Negligible. |
| | **Discharge Consents** | 2No. Licensed discharge to controlled waters within 500m - the nearest is 462m northeast (active) as sewage discharges – final/treated effluent.<br>No Licensed pollutant (Part A(2)/B) release within 500m. |
| | **Pollution Incidents** | No pollution incidents recorded within 500m. |
| **Minerals and Mining** | **Coal Report** | The site and surrounding areas are not within a JPB mining area.<br>The site is not within an area which could be affected by past, current or future coal mining. |

## Environmental Setting

| Feature | | Information |
|---|---|---|
| | **Coal Mining Development Risk** | No development high risk is associated with the site from coal mining. |
| | **Surface Extractions** | No entries within 250m for Surface Ground Workings.<br>No Brit pits within 500m. |
| | **Mining Instability/Non-Coal Mining Area** | No entries for non-coal mining within 500m. |
| **Ground Stability** | **Shrink/Swell Clay** | Low |
| | **Running Sand** | Moderate |
| | **Compressible Ground** | Moderate |
| | **Collapsible Ground** | Negligible |
| | **Landslide** | Very low |
| | **Ground Dissolution** | Negligible |
| **Landfill Site** | **Registered** | No historical active, recent or historical landfill records within 500m.<br>No historical and licensed waste site records within 500m.<br>No Waste exemption sites within 500m. |
| | **Potential: infilled land** | No Artificial and Made Ground records within 500m. |
| **Radon** | Less than 1% no protective measures required. | |
| **Designated Sites** | Within 1km:<br>On site Nitrate Vulnerable Zone (surface water)<br>Agricultural land classification on site – Grade 2 Very good quality agricultural land.<br>No other environmental designation records. | |
| **Contemporary Trade Directory** | No entries for Recent industrial land uses within 250m. | |
| **Fuel Station Entries** | No fuel station records within 500m. | |

## Environmental Setting

| Feature | Information |
|---|---|
| **Unexploded Bomb Risk (UXO)** | Zetica Risk maps presented in Appendix 5 identifies a low risk of UXO. |
| **Environmental Search (other)** | N/A |

## Environmental Database Review

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| **Features on Site** | The site presents a low potential for contamination based on its historical and current uses. It remained as open land until around 1950, when development first occurred. From c.1979, the site was occupied by St Michael's Church with subsequent use as a village hall, both considered low-risk uses.<br><br>More recently, the site has operated as a workshop for steel fabrication and storage of building materials and tools, introducing a limited potential for localised contamination from fuels, oils, or metal residues. However, the small operational scale, predominantly hardstanding surface, and absence of recorded pollution incidents indicate that the overall contamination risk remains low. |
| **Potentially Contaminative Features Off-Site (250m)** | Summary of Offsite potential to onsite migration potential from:<br><br>Historical:<br><br>5m southwest Telephone Exchange 1982<br><br>No Current features recorded off site. |
| **Implications for Land Contamination Risk** | Limited potential sources of contamination have been identified on site and within the surrounding area. The site's historical uses as St Michael's Church, village hall, and later a small-scale workshop present a low risk of contamination, primarily associated with the most recent steel fabrication and material storage activities. Within 250m, there are no significant historical industrial or waste management uses, with the nearest recorded potential source being a former telephone exchange (1982) located 5m southwest.<br><br>Overall, the potential for land contamination is considered low, and no significant off-site sources are expected to materially impact the site. These findings are considered further in the Conceptual Site Model (CSM) below. |

## Planning Review

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| **Planning Portal Records** | The site is presented to inform a planning proposal with South Holland District Council ref.H03-0896-24 for *Demolition of buildings except for one (to be reduced in length) and used for storage of equipment in connection with applicants groundworks business and erection of one self build/custom build dwelling with associated works.*<br><br>Indicative development plans are presented as Appendix 6.<br><br>4No. records since 2020 on the South Holland District Council, none relating to the subject site:<br><br>H03-0301-25, 19 Counter Drain Drove Tongue End Spalding PE11 3JJ - Proposed single storey rear extension. Approved.<br><br>H03-1178-21, 20 Counter Drain Drove, Tongue End, Spalding, PE11 3JJ – Proposed Single Storey Rear Extension. Approved.<br><br>H03-0917-21 19 Counter Drain Drove Tongue End Spalding PE11 3JJ - Proposed two storey side extension & single storey front extension - re-submission of H03-0465-21. Approved.<br><br>H03-0465-21 19 Counter Drain Drove Tongue End Spalding PE11 3JJ - Proposed Two Storey Side Extension and Single Storey Front Extension. Approved. |
| **Part 2A of the Environmental Protection Act (EPA) 1990** | No recorded sites determined as Contaminated Land within 500m. |
| **Local Authority Records** | Arbtech Consulting Ltd. have not contacted South Holland District Council however, consultations can be made at Contaminated land \| South Holland District Council. To date no sites have been formally determined as contaminated and therefore the public register has no entries. |

# Conceptual Site Model

**Overview**

A conceptual site model (CSM) is a representation of the characteristics of the site. It shows the possible relationships between contaminants, pathways and receptors. The CSM is used to identify potential contaminants, receptors (e.g., humans, groundwater), and pathways (e.g., inhalation, ingestion).

**Overall Site Sensitivity**

The site at Counter Drain Drove, Tongue End, has been assessed for potential environmental and contamination sensitivity in relation to its historical and current use, environmental setting, and surrounding land context.

Geology and Hydrogeology: The site is underlain by Barroway Drove Beds (Clay and Silt) of low to very low permeability, overlying the Oxford Clay Formation (Mudstone) bedrock, which is fractured with low to very low permeability. Both the superficial and bedrock units are classified as Unproductive Aquifers, and the site does not lie within a Source Protection Zone. Two groundwater abstractions are recorded within 1km, both for general farming and domestic use, with no potable abstractions within 2km. Overall, geological and hydrogeological sensitivity is low.

Groundwater and Surface Water: The nearest surface water feature is The Delph Drain, located on site, with the River Glen approximately 500m northwest. The site lies within the Vernatt's Drain surface water catchment, which has an overall moderate water quality rating. The site is situated within Flood Zone 3 (fluvial/tidal) and is at medium to high risk of flooding from rivers or sea, though groundwater flood risk is negligible. Controlled waters are therefore assessed as moderate sensitivity.

Land Use and Receptors: The site remained undeveloped until c.1950, followed by use as St Michael's Church, a village hall, and more recently a small-scale workshop. Off-site sources are minimal. The surrounding area is predominantly agricultural with some residential properties along Counter Drain Drove. Sensitive receptors include construction workers, future residents, and nearby surface waters. Overall, sensitivity is low to moderate.

Ground Stability: Ground conditions are characterised by low risk of shrink/swell clay, moderate running sand and compressible ground, and very low to negligible risks from landslides, collapsible ground, and dissolution features. The site is not within a mining or non-coal mining risk area. Accordingly, ground stability sensitivity is low.

Ecology and Environmental Designations: The site is located within a Nitrate Vulnerable Zone (surface water) and comprises Grade 2 agricultural land. No other statutory or non-statutory ecological designations are recorded within 1km. Consequently, ecological sensitivity is low.

Overall: The environmental and contamination sensitivity is assessed as low. Potential risks are primarily associated with localised contamination from past workshop use and surface water receptors, both of which are expected to be manageable with standard assessment and mitigation measures.

Identified potential contamination sources within 100m of the Site are presented in the following table:

**Contamination Sources**

| Ref. | Source | Location | Dates Present | Potential Associated Contaminants of Concern |
|---|---|---|---|---|
| **Source 1** | On-Site Potential | Former and current small-scale workshop for steel fabrication, including storage of building materials and tools; associated hardstanding and small structures. | c.2000–present | Hydrocarbons, metals, solvents, oils, cleaning fluids, minor surface spills. |
| **Source 2** | Off-Site Potential – Historical | Former telephone exchange (1982) located 5m SW; no other historical industrial or waste uses recorded within 250m. | 1982 | Hydrocarbons, metals, insulating oils, minor solvents. |
| **Source 3** | Off-Site Potential – Current | Surrounding area is predominantly agricultural with some light residential use along Counter Drain Drove; no active industrial or waste management sites within 250m. | Current | Fertilisers, pesticides (agricultural sources). |
| **Source 4** | Other | Surface water features (The Delph Drain on site; River Glen 500m NW) and Flood Zone 3 (fluvial/tidal); potential for contaminant transport via surface runoff or flooding. | Ongoing | Sediment-bound contaminants, hydrocarbons, nutrients, agricultural runoff. |

**Potential Receptors**

Relevant potential receptors are considered to include:

- Construction workers during groundworks, particularly during excavation of hardstanding, rough ground, or removal of former building foundations.
- Future site users (residential) associated with the proposed self-build dwelling and retained workshop.
- Adjacent residents and site users along Counter Drain Drove and nearby agricultural holdings.
- Surface water bodies, including The Delph Drain (on site) and the River Glen (500m northwest).
- Groundwater within superficial deposits and bedrock, although both are classed as Unproductive Aquifers.
- Soil and subsoil beneath hardstanding and vegetated areas, potentially impacted by past workshop use.
- Built environment, including proposed buildings, services, and drainage infrastructure.
- Ecological receptors, limited to surface water ecosystems due to the absence of designated ecological sites within 1km.

**Potential Pathways**

The potential pathways are considered to be:

- Direct contact, ingestion, or inhalation of contaminated soil, dust, or demolition material during construction activities.
- Inhalation of fumes potentially arising from hydrocarbon or solvent residues associated with former workshop use.
- Surface runoff and infiltration, allowing migration of contaminants to adjacent surface water features (The Delph Drain, River Glen).
- Vertical migration of leachate through made ground or permeable zones to underlying soils and groundwater.
- Flooding events, potentially mobilising contaminants and transporting them to nearby receptors via surface water flow.
- Service corridors and utility trenches, which may facilitate preferential contaminant migration beneath the site.

## Pollutant Linkage Assessment

| Source | Pathway | Receptor | Risk Rating | Justification and any Mitigation | Investigation Required |
|---|---|---|---|---|---|
| On-Site Potential: Former steel fabrication workshop and material storage, existing hardstanding and rough ground with minor vegetation growth | Direct contact with shallow soils; inhalation of dust or vapours during demolition and excavation | Construction workers during redevelopment | Low | Localised contamination possible from metalworking, fuel or oil residues; exposure limited to shallow works. Implement PPE, dust suppression, and waste segregation during groundworks. | Targeted site investigation following demolition of the most westerly building, focusing on proposed residential garden foundation areas, due to the transition to a more sensitive land use. No specific ground gas monitoring required at this stage; confirm during targeted site investigation if deemed necessary. |
| | Leaching and surface runoff | Surface water (The Delph Drain, on-site) | Low | Potential for minor runoff of suspended solids or hydrocarbons; drainage network and vegetated margins reduce impact potential. | None required beyond good construction site management and pollution prevention measures (PPMs). |
| Off-Site Historical: St Michael's Church and former village hall (c.1950–2016) | Direct contact, shallow soil disturbance | Construction workers | Low | Historic use unlikely to have involved hazardous substances; minor risk from building materials or localised made ground. | None required; visual inspection during works. |
| Off-Site Potential Current: Agricultural land surrounding site | Surface water runoff; wind-blown dust | Construction workers, future site users | Low | Possible exposure to agrochemicals or dust; effects expected to be minimal and short-term. | None required |
| Other: Flooding from River Glen and The Delph Drain (on-site Flood Zone 3) | Migration of contaminants via floodwaters and sediment | Surface water, secondary receptors | Low-Moderate | Periodic flooding could mobilise minor contaminants; no significant pollution sources identified. Implement flood-resilient design and materials. | Further flood risk management measures in design phase; no specific contamination investigation required. |

# Conclusions and Recommendations

| Land Contamination Summary | |
|---|---|
| **Uncertainty and Data Gaps** | Assessment is based on desk study, historical mapping, environmental data, and a site reconnaissance. No intrusive investigation or sampling has been completed to date, introducing uncertainty regarding shallow soil conditions beneath hardstanding and former structures. A proportionate intrusive investigation is recommended in areas of planned disturbance. |
| **Soils** | Made Ground and shallow soils may contain minor hydrocarbons, metals, and other workshop-related residues from historic small-scale steel fabrication and material storage. Given the predominantly hardstanding cover and retention of the workshop, risk is low and localised. Targeted sampling is recommended post-demolition of the westerly building and within new foundation or service areas. Any imported soils for residential garden areas should be chemically tested and verified as suitable for use in accordance with BS 3882:2015, EA guidance, and relevant soil verification procedures. |
| **Groundwater** | The site is underlain by low-permeability superficial and bedrock deposits (Barroway Drove Beds over Oxford Clay), both classified as unproductive aquifers. Shallow excavation is unlikely to reach groundwater. Surface water management should be maintained to prevent runoff to The Delph Drain. Overall risk to controlled waters is low. |
| **Ground Gas** | No recorded sources of significant ground gas generation on or near the site. The absence of infilled land and low organic content suggest a very low ground gas risk. Monitoring is not required unless unexpected made ground or buried waste is encountered during works. |
| **Volatile Organic Vapours** | Minimal potential for volatile emissions, limited to possible minor hydrocarbon residues within made ground. Low risk to construction and future residential users. Standard ventilation and good construction practices will provide adequate protection. |
| **Potential Contaminated Land Development Risks** | Construction workers may encounter localised soil contamination during excavation or demolition. Risks can be managed through PPE, dust suppression, and appropriate waste handling. Future residential users face low risk, with hardstanding and garden areas designed to limit exposure. Controlled waters, ecology, and infrastructure are also at low risk. Overall, the site presents a low potential for contamination, primarily linked to localised shallow soils. |

| Recommendations and Development | |
|---|---|
| **Ground Investigation Recommendations** | Based on the outcome of the Preliminary Risk Assessment, a targeted site investigation is recommended following demolition of the south-westerly building to confirm the presence or absence of contamination in newly exposed soils and proposed garden or foundation areas. The scope should include:<br>Targeted shallow soil sampling (0–1m) in areas of new foundations, service runs, and garden areas.<br>Laboratory testing for hydrocarbons (TPH), PAHs, metals, VOCs (if staining/odour observed), pH, and asbestos screening.<br>Visual and olfactory assessment during excavation.<br>Sediment sample from The Delph Drain only if works occur within 10m or visible pollution is present.<br>Findings will inform any further risk mitigation or soil management requirements. |
| **Development Considerations** | Health & Safety: Workers should adopt appropriate PPE (gloves, masks, boots), dust suppression, and spill control during demolition and excavation. Retention of the workshop reduces direct exposure risk.<br>Mitigation Measures: Gas or vapour protection is not required based on current evidence. Implement standard pollution prevention and drainage protection near The Delph Drain.<br>Material Management: Excavated soils should be visually assessed and classified according to investigation results before reuse or off-site disposal. Any asbestos- or hydrocarbon-impacted materials should be removed to a licensed facility.<br>Unexpected Contamination: If staining, odour, or buried materials are encountered, works should cease, and an environmental specialist consulted for assessment and sampling.<br>Any imported soils for residential garden areas should be chemically tested and verified as suitable for use in accordance with BS 3882:2015, EA guidance, and relevant soil verification procedures. |

# Appendices

Appendix 1: Risk Evaluation

Appendix 2: Site Photographs

Appendix 3: Groundsure Enviro + Geo Insight

Appendix 4: Historical Map Selection

Appendix 5: Zetica UXO Mapping

Appendix 6: Development Plans

Appendix 7: Document Production Record

If you require clarification of the information contained herein, please do not hesitate to contact us via 01244 661170.

Yours Sincerely,

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# Appendix 1: Risk Evaluation

## PRINCIPLES OF RISK EVALUATION

The risk evaluation methodology presented below is qualitative in nature and is therefore a subjective method. It is based upon guidance presented in CIRIA publication referenced C552, 'Contaminated land risk assessment ~ A guide to good practice', 2001 and involves the classification of the following:

- The magnitude of the potential consequence (severity) of risk occurring
- The magnitude of the probability (likelihood) of the risk occurring
- These are then considered in conjunction to give a risk matrix

| Consequence to Receptor Definition Matrix | | | |
|---|---|---|---|
| | **Human Health** | **Controlled Waters** | **Buildings/Services** |
| **Severe Consequence** | Acute or chronic permanent impact on human health. | Sensitive controlled water pollution ongoing, or just about to occur. | Catastrophic collapse |
| **Medium Consequence** | Chronic permanent impact on human health | Gradual pollution of sensitive controlled water | Degradation of materials |
| **Mild Consequence** | Chronic temporary impact on human health | Gradual pollution of non-sensitive controlled water | Damage to building rendering it unsafe.to occupy (e.g. foundation damage resulting in instability). |
| **Minor Consequence** | Non-permanent health effects to human health (easily prevented by means such as personal protective clothing etc). | Slight discoloration of water | Easily repairable effects of damage to buildings, structures and services, i.e. discoloration of concrete |

| Probability Definitions | |
|---|---|
| **Probability** | **Definition in Context** |
| **Higher** | There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term, or there is evidence at the receptor of harm or pollution.<br>Positive evidence of source, pathway and receptor. |
| **Likely** | There is a pollution linkage, and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.<br>Suspect source, pathway, and receptor |
| **Low Likelihood** | There is a pollution linkage, and circumstances are possible under which an event could occur.<br>However, it is by no means certain that even over a longer period such event would take place and is less likely in the shorter term. |
| **Unlikely** | There is a pollution linkage, but circumstances are such that it is improbable that an event would occur even in the very long term.<br>No evidence of hazard, pathway, and receptor |

## Standard Risk Matrix

| | | Consequence/Magnitude of impact | | | |
|---|---|---|---|---|---|
| | | **Severe** | **Medium** | **Mild** | **Minor** |
| **Probability** | **High** | Very High | High | Moderate | Moderate/Low |
| | **Likely** | High | Moderate | Moderate/low | Low |
| | **Low Likelihood** | Moderate | Moderate/low | Low | Very Low |
| | **Unlikely** | Moderate/low | Low | Very Low | Very Low |

## Classified risks and likely action

| Significance Level | Definition/Comments |
|---|---|
| **Very High Risk** | There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR there is evidence that severe harm to a designated receptor is currently happening.<br>This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.<br>Demonstrable contaminated land situation, highest threat & liability level, urgent action recommended. |
| **High Risk** | Harm is likely to arise to a designated receptor from an identified hazard.<br>Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.<br>Likely contaminated land situation, risk assessment and action recommended. |
| **Moderate** | It is possible that harm could arise to a designated receptor from an identified hazard. However, if is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.<br>Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.<br>Plausible contaminated land situation, risk assessment and possible action recommended. |
| **Low Risk** | It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.<br>Unlikely contaminated land situation, possible risk assessment and possible action. |
| **Very Low Risk** | There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.<br>Negligible risk, no action recommended except vigilance for changes in conditions. |

# Appendix 2: Site Photographs

## Site Walkover Photos

**Plate 1: Facing southeast towards the covered area.**

**Plate 2: Internal of the brick building (to be demolised).**

**Plate 3: Internal of the building on the southeast boundary (to be demolished).**

**Plate 4: Internal of the building on the southeast boundary (to be demolished).**

**Plate 5: Internal of the workshop/storage building (being retained).**

**Plate 6: Facing northwest towards the site entrance.**

**Plate 7: Facing southeast along the southwest boundary.**

**Plate 8: Hardstanding area.**

**Plate 9: Facing southeast towards the workshop and northeast boundary.**

**Plate 10: Facing northwest to the rear of the brick building.**

**Plate 11: Facing south to hardstanding area and brick building.**

**Plate 12: Facing west at a stone heap on site.**

**Plate 13: Facing southeast from the site entrance.**

**Plate 14: Facing the southwest corner to the rear of the brick building.**

# Appendix 3: Groundsure Enviro + Geo Insight

Groundsure LOCATION INTELLIGENCE

# Enviro+Geo Insight

The Old Mission, Spalding, Lincolnshire, PE11 3JN

## Order Details

**Date:** 29/09/2025

**Your ref:** The Old Mission PE11 3JN 43893399

**Our Ref:** GS-7UN-IDV-OQU-394

## Site Details

**Location:** 516569 319081

**Area:** 0.11 ha

**Authority:** South Holland District Council ↗


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

Certified B Corporation

# Summary of findings

| Page | Section | Past land use > | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
|---|---|---|---|---|---|---|---|
| 15 > | 1.1 > | Historical industrial land uses > | 1 | 0 | 0 | 2 | - |
| 16 > | 1.2 > | Historical tanks > | 0 | 0 | 0 | 1 | - |
| 16 | 1.3 | Historical energy features | 0 | 0 | 0 | 0 | - |
| 16 | 1.4 | Historical petrol stations | 0 | 0 | 0 | 0 | - |
| 17 | 1.5 | Historical garages | 0 | 0 | 0 | 0 | - |
| 17 | 1.6 | Historical military land | 0 | 0 | 0 | 0 | - |
| Page | Section | Past land use - un-grouped > | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 18 > | 2.1 > | Historical industrial land uses > | 1 | 0 | 0 | 2 | - |
| 19 > | 2.2 > | Historical tanks > | 0 | 0 | 0 | 2 | - |
| 19 | 2.3 | Historical energy features | 0 | 0 | 0 | 0 | - |
| 19 | 2.4 | Historical petrol stations | 0 | 0 | 0 | 0 | - |
| 19 | 2.5 | Historical garages | 0 | 0 | 0 | 0 | - |
| Page | Section | Waste and landfill | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 20 | 3.1 | Active or recent landfill | 0 | 0 | 0 | 0 | - |
| 20 | 3.2 | Historical landfill (BGS records) | 0 | 0 | 0 | 0 | - |
| 20 | 3.3 | Historical landfill (LA/mapping records) | 0 | 0 | 0 | 0 | - |
| 20 | 3.4 | Historical landfill (EA/NRW records) | 0 | 0 | 0 | 0 | - |
| 20 | 3.5 | Historical waste sites | 0 | 0 | 0 | 0 | - |
| 21 | 3.6 | Licensed waste sites | 0 | 0 | 0 | 0 | - |
| 21 | 3.7 | Waste exemptions | 0 | 0 | 0 | 0 | - |
| Page | Section | Current industrial land use > | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 22 | 4.1 | Recent industrial land uses | 0 | 0 | 0 | - | - |
| 22 | 4.2 | National Geographic Database (NGD) - Current or recent tanks | 0 | 0 | 0 | - | - |
| 23 | 4.3 | Current or recent petrol stations | 0 | 0 | 0 | 0 | - |
| 23 | 4.4 | Electricity cables | 0 | 0 | 0 | 0 | - |
| 23 | 4.5 | Gas pipelines | 0 | 0 | 0 | 0 | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 23 | 4.6 | Sites determined as Contaminated Land | 0 | 0 | 0 | 0 | - |
| 23 | 4.7 | Control of Major Accident Hazards (COMAH) | 0 | 0 | 0 | 0 | - |
| 24 | 4.8 | Regulated explosive sites | 0 | 0 | 0 | 0 | - |
| 24 | 4.9 | Hazardous substance storage/usage | 0 | 0 | 0 | 0 | - |
| 24 | 4.10 | Historical licensed industrial activities (IPC) | 0 | 0 | 0 | 0 | - |
| 24 | 4.11 | Licensed industrial activities (Part A(1)) | 0 | 0 | 0 | 0 | - |
| 24 | 4.12 | Licensed pollutant release (Part A(2)/B) | 0 | 0 | 0 | 0 | - |
| 25 | 4.13 | Radioactive Substance Authorisations | 0 | 0 | 0 | 0 | - |
| **25 >** | **4.14 >** | **Licensed Discharges to controlled waters >** | 0 | 0 | 0 | 2 | - |
| 25 | 4.15 | Pollutant release to surface waters (Red List) | 0 | 0 | 0 | 0 | - |
| 26 | 4.16 | Pollutant release to public sewer | 0 | 0 | 0 | 0 | - |
| 26 | 4.17 | List 1 Dangerous Substances | 0 | 0 | 0 | 0 | - |
| 26 | 4.18 | List 2 Dangerous Substances | 0 | 0 | 0 | 0 | - |
| 26 | 4.19 | Pollution Incidents (EA/NRW) | 0 | 0 | 0 | 0 | - |
| 26 | 4.20 | Pollution inventory substances | 0 | 0 | 0 | 0 | - |
| 27 | 4.21 | Pollution inventory waste transfers | 0 | 0 | 0 | 0 | - |
| 27 | 4.22 | Pollution inventory radioactive waste | 0 | 0 | 0 | 0 | - |

| Page | Section | **Hydrogeology >** | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
|---|---|---|---|---|---|---|---|
| **28 >** | **5.1 >** | **Superficial aquifer >** | Identified (within 500m) | | | | |
| **30 >** | **5.2 >** | **Bedrock aquifer >** | Identified (within 500m) | | | | |
| **31 >** | **5.3 >** | **Groundwater vulnerability >** | Identified (within 50m) | | | | |
| 32 | 5.4 | Groundwater vulnerability- soluble rock risk | None (within 0m) | | | | |
| 32 | 5.5 | Groundwater vulnerability- local information | None (within 0m) | | | | |
| **33 >** | **5.6 >** | **Groundwater abstractions >** | 0 | 0 | 1 | 0 | 5 |
| **35 >** | **5.7 >** | **Surface water abstractions >** | 2 | 1 | 0 | 1 | 30 |
| 42 | 5.8 | Potable abstractions | 0 | 0 | 0 | 0 | 0 |
| 42 | 5.9 | Source Protection Zones | 0 | 0 | 0 | 0 | - |
| 42 | 5.10 | Source Protection Zones (confined aquifer) | 0 | 0 | 0 | 0 | - |

| Page | Section | **Hydrology >** | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 43 > | 6.1 > | Water Network (OS MasterMap) > | 2 | 9 | 8 | - | - |
| 45 > | 6.2 > | Surface water features > | 1 | 3 | 4 | - | - |
| 45 > | 6.3 > | WFD Surface water body catchments > | 1 | - | - | - | - |
| 46 > | 6.4 > | WFD Surface water bodies > | 0 | 0 | 0 | - | - |
| 46 | 6.5 | WFD Groundwater bodies | 0 | - | - | - | - |
| Page | Section | River and coastal flooding > | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 47 > | 7.1 > | Risk of flooding from rivers and the sea > | High (within 50m) | | | | |
| 48 | 7.2 | Historical Flood Events | 0 | 0 | 0 | - | - |
| 48 | 7.3 | Flood Defences | 0 | 0 | 0 | - | - |
| 48 | 7.4 | Areas Benefiting from Flood Defences | 0 | 0 | 0 | - | - |
| 48 | 7.5 | Flood Storage Areas | 0 | 0 | 0 | - | - |
| 49 > | 7.6 > | Flood Zone 2 > | Identified (within 50m) | | | | |
| 50 > | 7.7 > | Flood Zone 3 > | Identified (within 50m) | | | | |
| Page | Section | Surface water flooding > | | | | | |
| 51 > | 8.1 > | Surface water flooding > | 1 in 30 year, 0.1m - 0.3m (within 50m) | | | | |
| Page | Section | Groundwater flooding > | | | | | |
| 53 > | 9.1 > | Groundwater flooding > | Negligible (within 50m) | | | | |
| Page | Section | Environmental designations | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 54 | 10.1 | Sites of Special Scientific Interest (SSSI) | 0 | 0 | 0 | 0 | 0 |
| 54 | 10.2 | Conserved wetland sites (Ramsar sites) | 0 | 0 | 0 | 0 | 0 |
| 54 | 10.3 | Special Areas of Conservation (SAC) | 0 | 0 | 0 | 0 | 0 |
| 54 | 10.4 | Special Protection Areas (SPA) | 0 | 0 | 0 | 0 | 0 |
| 55 | 10.5 | National Nature Reserves (NNR) | 0 | 0 | 0 | 0 | 0 |
| 55 | 10.6 | Local Nature Reserves (LNR) | 0 | 0 | 0 | 0 | 0 |
| 55 | 10.7 | Designated Ancient Woodland | 0 | 0 | 0 | 0 | 0 |
| 55 | 10.8 | Biosphere Reserves | 0 | 0 | 0 | 0 | 0 |
| 56 | 10.9 | Forest Parks | 0 | 0 | 0 | 0 | 0 |
| 56 | 10.10 | Marine Conservation Zones | 0 | 0 | 0 | 0 | 0 |
| 56 | 10.11 | Green Belt | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 56 | 10.12 | Proposed Ramsar sites | 0 | 0 | 0 | 0 | 0 |
| 56 | 10.13 | Possible Special Areas of Conservation (pSAC) | 0 | 0 | 0 | 0 | 0 |
| 57 | 10.14 | Potential Special Protection Areas (pSPA) | 0 | 0 | 0 | 0 | 0 |
| 57 | 10.15 | Nitrate Sensitive Areas | 0 | 0 | 0 | 0 | 0 |
| **57 >** | **10.16 >** | **Nitrate Vulnerable Zones >** | 1 | 0 | 0 | 1 | 1 |
| 58 | 10.17 | SSSI Impact Risk Zones | 0 | - | - | - | - |
| 58 | 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 |
| 59 | 11.1 | World Heritage Sites | 0 | 0 | 0 | - | - |
| 59 | 11.2 | Area of Outstanding Natural Beauty | 0 | 0 | 0 | - | - |
| 59 | 11.3 | National Parks | 0 | 0 | 0 | - | - |
| 59 | 11.4 | Listed Buildings | 0 | 0 | 0 | - | - |
| 60 | 11.5 | Conservation Areas | 0 | 0 | 0 | - | - |
| 60 | 11.6 | Scheduled Ancient Monuments | 0 | 0 | 0 | - | - |
| 60 | 11.7 | Registered Parks and Gardens | 0 | 0 | 0 | - | - |
| Page | Section | **Agricultural designations >** | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| **61 >** | **12.1 >** | **Agricultural Land Classification >** | Grade 2 (within 250m) | | | | |
| 62 | 12.2 | Open Access Land | 0 | 0 | 0 | - | - |
| 62 | 12.3 | Tree Felling Licences | 0 | 0 | 0 | - | - |
| 62 | 12.4 | Environmental Stewardship Schemes | 0 | 0 | 0 | - | - |
| 63 | 12.5 | Countryside Stewardship Schemes | 0 | 0 | 0 | - | - |
| Page | Section | Habitat designations | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 64 | 13.1 | Priority Habitat Inventory | 0 | 0 | 0 | - | - |
| 64 | 13.2 | Habitat Networks | 0 | 0 | 0 | - | - |
| 64 | 13.3 | Open Mosaic Habitat | 0 | 0 | 0 | - | - |
| 64 | 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 |
| **65 >** | **14.1 >** | **10k Availability >** | Identified (within 500m) | | | | |
| 66 | 14.2 | Artificial and made ground (10k) | 0 | 0 | 0 | 0 | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 67 > | 14.3 > | Superficial geology (10k) > | 1 | 1 | 3 | 1 | - |
| 68 | 14.4 | Landslip (10k) | 0 | 0 | 0 | 0 | - |
| 69 > | 14.5 > | Bedrock geology (10k) > | 1 | 0 | 0 | 0 | - |
| 70 | 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 |
| 71 > | 15.1 > | 50k Availability > | Identified (within 500m) | | | | |
| 72 | 15.2 | Artificial and made ground (50k) | 0 | 0 | 0 | 0 | - |
| 72 | 15.3 | Artificial ground permeability (50k) | 0 | 0 | - | - | - |
| 73 > | 15.4 > | Superficial geology (50k) > | 1 | 0 | 2 | 1 | - |
| 74 > | 15.5 > | Superficial permeability (50k) > | Identified (within 50m) | | | | |
| 74 | 15.6 | Landslip (50k) | 0 | 0 | 0 | 0 | - |
| 74 | 15.7 | Landslip permeability (50k) | None (within 50m) | | | | |
| 75 > | 15.8 > | Bedrock geology (50k) > | 1 | 0 | 0 | 0 | - |
| 76 > | 15.9 > | Bedrock permeability (50k) > | Identified (within 50m) | | | | |
| 76 | 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 |
| 77 > | 16.1 > | BGS Boreholes > | 0 | 0 | 3 | - | - |
| Page | Section | Natural ground subsidence > | | | | | |
| 79 > | 17.1 > | Shrink swell clays > | Low (within 50m) | | | | |
| 80 > | 17.2 > | Running sands > | Moderate (within 50m) | | | | |
| 81 > | 17.3 > | Compressible deposits > | Moderate (within 50m) | | | | |
| 82 > | 17.4 > | Collapsible deposits > | Negligible (within 50m) | | | | |
| 83 > | 17.5 > | Landslides > | Very low (within 50m) | | | | |
| 84 > | 17.6 > | Ground dissolution of soluble rocks > | Negligible (within 50m) | | | | |
| Page | Section | Mining and ground workings | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 86 | 18.1 | BritPits | 0 | 0 | 0 | 0 | - |
| 86 | 18.2 | Surface ground workings | 0 | 0 | 0 | - | - |
| 86 | 18.3 | Underground workings | 0 | 0 | 0 | 0 | 0 |
| 86 | 18.4 | Underground mining extents | 0 | 0 | 0 | 0 | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 87 | 18.5 | Historical Mineral Planning Areas | 0 | 0 | 0 | 0 | - |
| 87 | 18.6 | Non-coal mining | 0 | 0 | 0 | 0 | 0 |
| 87 | 18.7 | JPB mining areas | None (within 0m) | | | | |
| 87 | 18.8 | The Coal Authority non-coal mining | 0 | 0 | 0 | 0 | - |
| 88 | 18.9 | Researched mining | 0 | 0 | 0 | 0 | - |
| 88 | 18.10 | Mining record office plans | 0 | 0 | 0 | 0 | - |
| 88 | 18.11 | BGS mine plans | 0 | 0 | 0 | 0 | - |
| 88 | 18.12 | Coal mining | None (within 0m) | | | | |
| 88 | 18.13 | Brine areas | None (within 0m) | | | | |
| 89 | 18.14 | Gypsum areas | None (within 0m) | | | | |
| 89 | 18.15 | Tin mining | None (within 0m) | | | | |
| 89 | 18.16 | Clay mining | None (within 0m) | | | | |
| Page | Section | Ground cavities and sinkholes | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 90 | 19.1 | Natural cavities | 0 | 0 | 0 | 0 | - |
| 90 | 19.2 | Mining cavities | 0 | 0 | 0 | 0 | 0 |
| 90 | 19.3 | Reported recent incidents | 0 | 0 | 0 | 0 | - |
| 90 | 19.4 | Historical incidents | 0 | 0 | 0 | 0 | - |
| Page | Section | **Radon** > | | | | | |
| **92** > | **20.1** > | **Radon** > | Less than 1% (within 0m) | | | | |
| Page | Section | **Soil chemistry** > | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| **94** > | **21.1** > | **BGS Estimated Background Soil Chemistry** > | 1 | 1 | - | - | - |
| 94 | 21.2 | BGS Estimated Urban Soil Chemistry | 0 | 0 | - | - | - |
| 94 | 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 |
| 95 | 22.1 | Underground railways (London) | 0 | 0 | 0 | - | - |
| 95 | 22.2 | Underground railways (Non-London) | 0 | 0 | 0 | - | - |
| 95 | 22.3 | Railway tunnels | 0 | 0 | 0 | - | - |
| 95 | 22.4 | Historical railway and tunnel features | 0 | 0 | 0 | - | - |
| 95 | 22.5 | Royal Mail tunnels | 0 | 0 | 0 | - | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 96 | 22.6 | Historical railways | 0 | 0 | 0 | - | - |
| 96 | 22.7 | Railways | 0 | 0 | 0 | - | - |
| 96 | 22.8 | Crossrail 2 | 0 | 0 | 0 | 0 | - |
| 96 | 22.9 | HS2 | 0 | 0 | 0 | 0 | - |

## Recent aerial photograph


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

Capture Date: 10/07/2022

Site Area: 0.11ha

# Recent site history - 2019 aerial photograph


Capture Date: 14/05/2019

Site Area: 0.11ha

# Recent site history - 2015 aerial photograph


Capture Date: 06/04/2015

Site Area: 0.11ha

# Recent site history - 2007 aerial photograph


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Capture Date: 19/04/2007

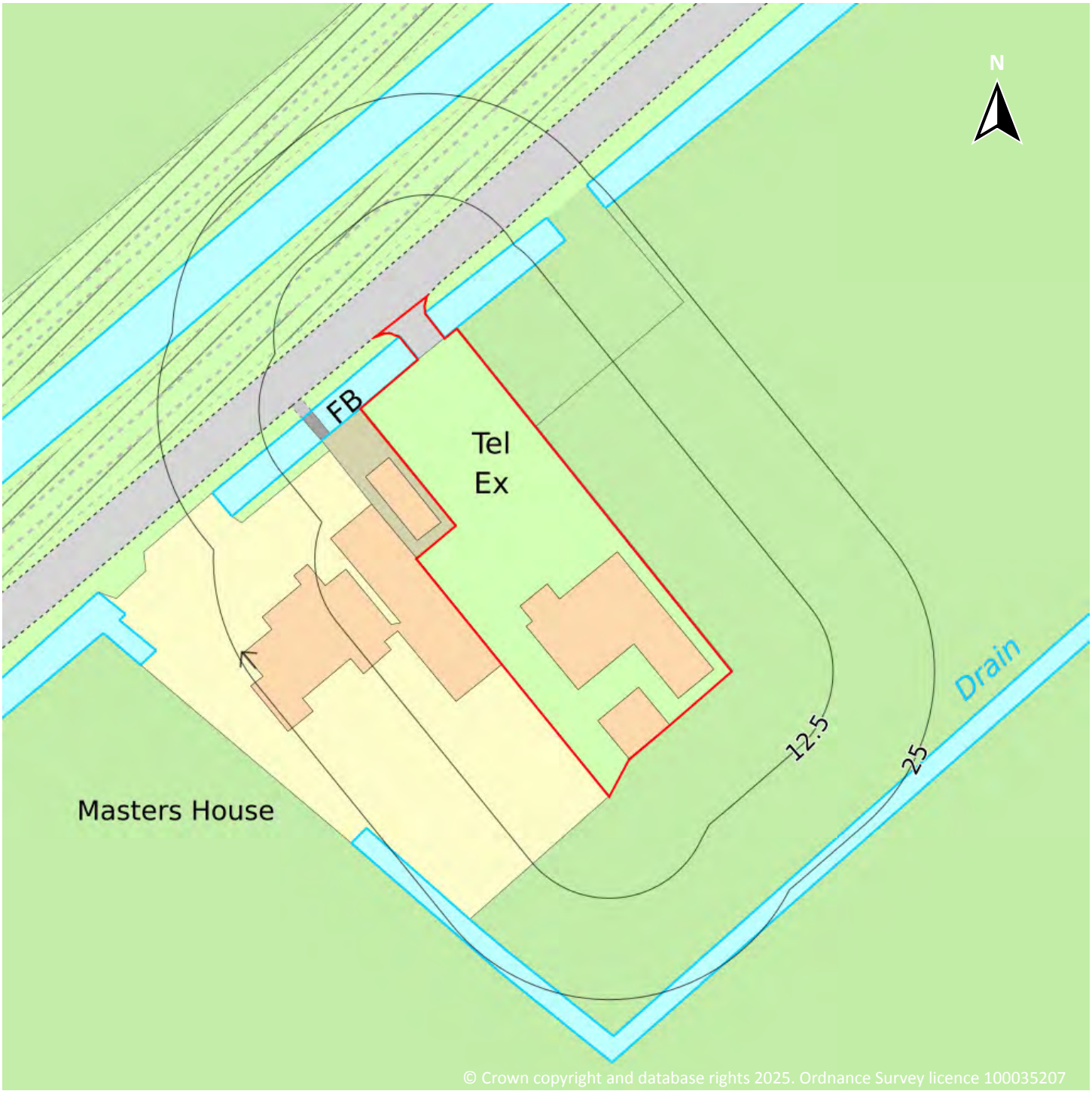
Site Area: 0.11ha

## Recent site history - 1999 aerial photograph


Capture Date: 29/05/1999

Site Area: 0.11ha

## OS MasterMap site plan




Site Area: 0.11ha

# 1 Past land use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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

## 1.1 Historical industrial land uses

| Records within 500m | 3 |
|---|---|

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

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

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| **1** | **On site** | **Telephone Exchange** | **1982** | **2038186** |

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| A | 452m NE | Sewage Works | 1982 | 2034271 |
| A | 467m NE | Unspecified Tank | 1982 | 2037534 |

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

## 1.2 Historical tanks

| Records within 500m | 1 |
|---|---|

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

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

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| A | 468m NE | Unspecified Tank | 1979 - 1994 | 356450 |

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

## 1.3 Historical energy features

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

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

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

## 1.4 Historical petrol stations

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

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

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

## 1.5 Historical garages

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

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

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

## 1.6 Historical military land

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

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

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

# 2 Past land use - un-grouped


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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

## 2.1 Historical industrial land uses

| Records within 500m | 3 |
|---|---|

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

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

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| **1** | **On site** | **Telephone Exchange** | **1982** | **2038186** |
| A | 452m NE | Sewage Works | 1982 | 2034271 |
| A | 467m NE | Unspecified Tank | 1982 | 2037534 |

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

## 2.2 Historical tanks

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

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

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

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| A | 468m NE | Unspecified Tank | 1994 | 356450 |
| A | 468m NE | Unspecified Tank | 1979 | 356450 |

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

## 2.3 Historical energy features

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

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

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

## 2.4 Historical petrol stations

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

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

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

## 2.5 Historical garages

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

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

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

# 3 Waste and landfill

## 3.1 Active or recent landfill

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

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

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

## 3.2 Historical landfill (BGS records)

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

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

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

## 3.3 Historical landfill (LA/mapping records)

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

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

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

## 3.4 Historical landfill (EA/NRW records)

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

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

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

## 3.5 Historical waste sites

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

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

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

## 3.6 Licensed waste sites

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

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

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

## 3.7 Waste exemptions

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

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

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

# 4 Current industrial land use


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Site Outline

Search buffers in metres (m)

Licensed Discharges to controlled waters

## 4.1 Recent industrial land uses

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

Current potentially contaminative industrial sites.

*This data is sourced from Ordnance Survey.*

## 4.2 National Geographic Database (NGD) - Current or recent tanks

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

Current or recent tanks identified from the Ordnance Survey NGD.

*This data is sourced from Ordnance Survey.*

## 4.3 Current or recent petrol stations

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

Open, closed, under development and obsolete petrol stations.

*This data is sourced from Experian.*

## 4.4 Electricity cables

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

High voltage underground electricity transmission cables.

*This data is sourced from National Grid.*

## 4.5 Gas pipelines

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

High pressure underground gas transmission pipelines.

*This data is sourced from National Grid.*

## 4.6 Sites determined as Contaminated Land

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

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

*This data is sourced from Local Authority records.*

## 4.7 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.*

## 4.8 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.*

## 4.9 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.*

## 4.10 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.*

## 4.11 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.*

## 4.12 Licensed pollutant release (Part A(2)/B)

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

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

*This data is sourced from Local Authority records.*

## 4.13 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.*

## 4.14 Licensed Discharges to controlled waters

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

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

Features are displayed on the Current industrial land use map on **page 22 >**

| ID | Location | Address | Details | |
|---|---|---|---|---|
| A | 462m NE | TONGUE END STW, TONGUE END, SPALDING, LINCS (SITE 2204) PE11 3JJ, PE11 3JJ | Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY<br>Permit Number: PR5NF480<br>Permit Version: 1<br>Receiving Water: Trib North Drove Drain | Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY)<br>Issue date: 25/07/1969<br>Effective Date: 25/07/1969<br>Revocation Date: 26/05/2011 |
| A | 462m NE | TONGUE END STW, TONGUE END, SPALDING, LINCS (SITE 2204) PE11 3JJ, PE11 3JJ | Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY<br>Permit Number: PR5NF480<br>Permit Version: 2<br>Receiving Water: Trib North Drove Drain | Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY)<br>Issue date: 27/05/2011<br>Effective Date: 27/05/2011<br>Revocation Date: - |

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

## 4.15 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.*

## 4.16 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.*

## 4.17 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.*

## 4.18 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.*

## 4.19 Pollution Incidents (EA/NRW)

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

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

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

## 4.20 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.*

## 4.21 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.*

## 4.22 Pollution inventory radioactive waste

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

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

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

# 5 Hydrogeology - Superficial aquifer


Site Outline

Search buffers in metres (m)

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

## 5.1 Superficial aquifer

| Records within 500m | 3 |
|---|---|

Aquifer status of groundwater held within superficial geology.

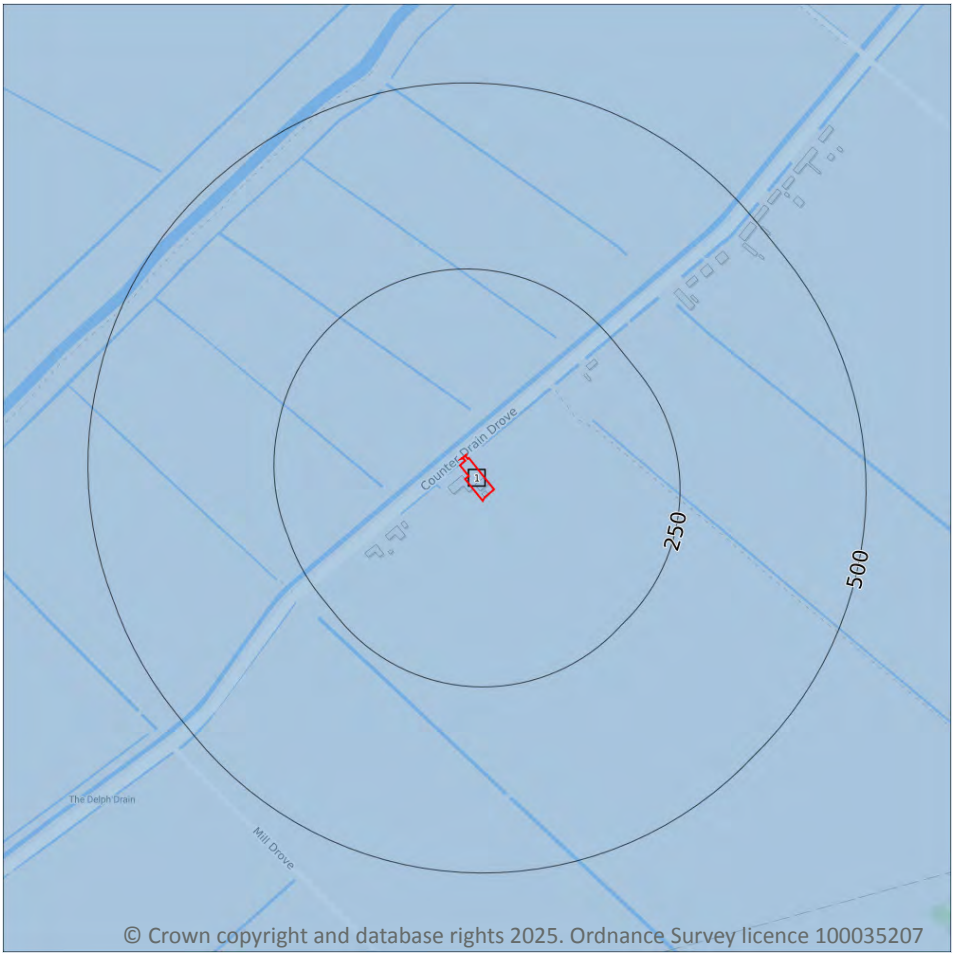
Features are displayed on the Hydrogeology map on **page 28 >**

| ID | Location | Designation | Description |
|---|---|---|---|
| **1** | **On site** | **Unproductive** | **These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow** |
| 2 | 76m S | 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 |

| ID | Location | Designation | Description |
|---|---|---|---|
| 3 | 263m S | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |

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

# Bedrock aquifer




Site Outline

Search buffers in metres (m)

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

## 5.2 Bedrock aquifer

| Records within 500m | 1 |
|---|---|

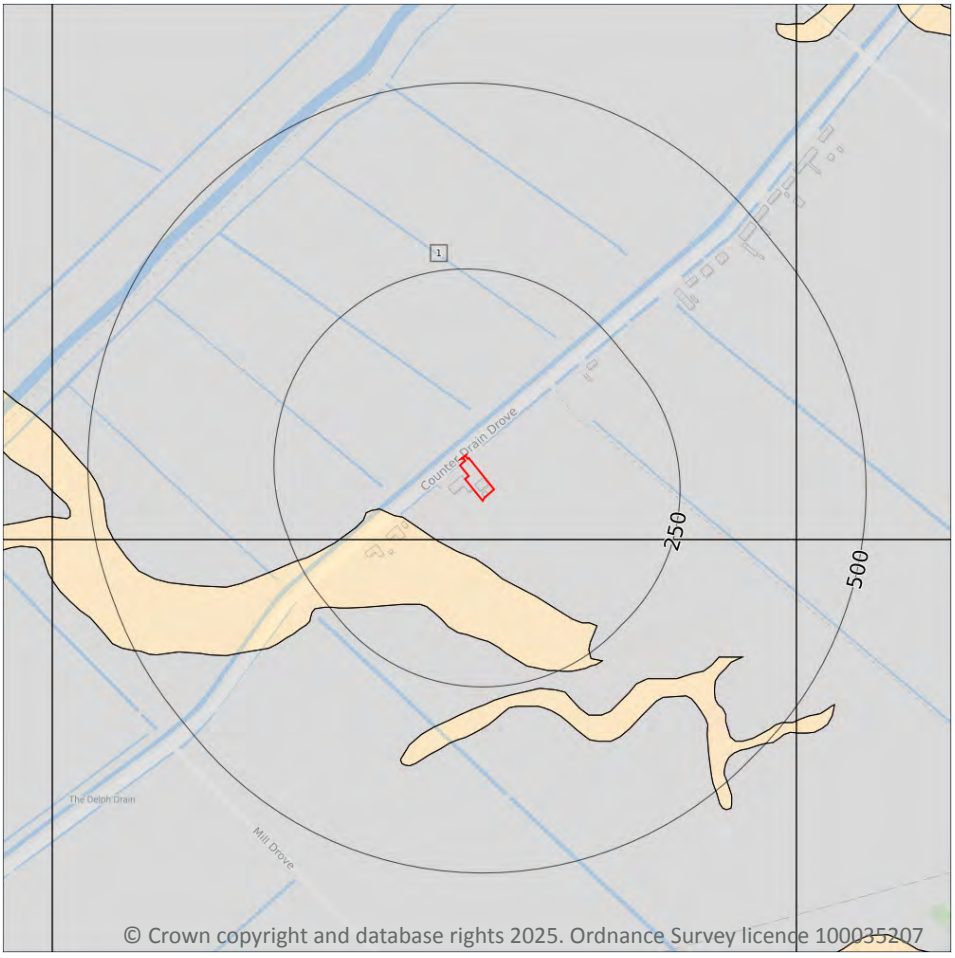
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 30 >**

| ID | Location | Designation | Description |
|---|---|---|---|
| 1 | On site | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow |

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

# Groundwater vulnerability




Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

## 5.3 Groundwater vulnerability

| Records within 50m | 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 31 >**

| ID | Location | Summary | Soil / surface | Superficial geology | Bedrock geology |
|---|---|---|---|---|---|
| 1 | On site | **Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, Unproductive Superficial Aquifer** | **Leaching class: High Infiltration value: >70% Dilution value: <300mm/year** | **Vulnerability: Unproductive Aquifer type: Unproductive Thickness: 3-10m Patchiness value: >90% Recharge potential: Low** | **Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures** |

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

## 5.4 Groundwater vulnerability- soluble rock risk

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

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

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

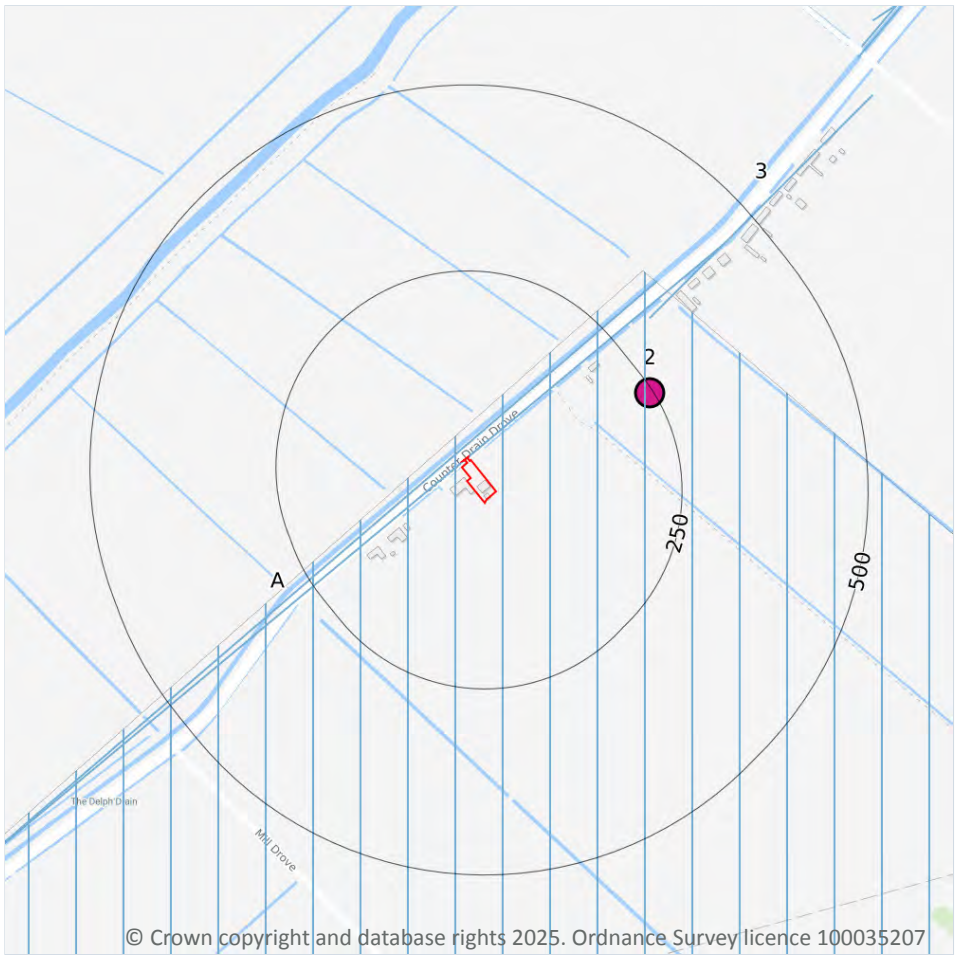
## 5.5 Groundwater vulnerability- local information

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

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

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

# Abstractions and Source Protection Zones




Site Outline

Search buffers in metres (m)

Source Protection Zone 1
Inner catchment

Source Protection Zone 2
Outer catchment

Source Protection Zone 3
Total catchment

Source Protection Zone 4
Zone of Special Interest

Source Protection Zone 1c
Inner catchment - confined aquifer

Source Protection Zone 2c
Outer catchment - confined aquifer

Source Protection Zone 3c
Total catchment - confined aquifer

Drinking water abstraction licences

Drinking water abstraction licences
Polygon features

Drinking water abstraction licences
Linear features

Groundwater abstraction licence (point)

Groundwater abstraction licence (area)

Groundwater abstraction licence (linear)

Surface Water Abstractions (point)

Surface Water Abstractions (area)

Surface Water Abstractions (linear)

## 5.6 Groundwater abstractions

| Records within 2000m | 6 |
|---|---|

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 33 >**

| ID | Location | Details | |
|---|---|---|---|
| 2 | 245m NE | Status: Historical<br>Licence No: 5/31/14/*G/0060<br>Details: General Farming & Domestic<br>Direct Source: GROUND WATER SOURCE OF SUPPLY<br>Point: 2 BOREHOLES TONGUE END<br>Data Type: Point<br>Name: CHATTERTON & COOKE LTD<br>Easting: 516800<br>Northing: 319200 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/02/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/04/2004<br>Version End Date: - |
| - | 854m W | Status: Active<br>Licence No: 4/30/12/*G/0090A<br>Details: General Farming & Domestic<br>Direct Source: GROUND WATER SOURCE OF SUPPLY<br>Point: BELLS FARM BORE TWENTY<br>Data Type: Point<br>Name: FRANK RICHARDSON & SON LTD<br>Easting: 515700<br>Northing: 319000 | Annual Volume ($m^3$): 7213<br>Max Daily Volume ($m^3$): 469.83<br>Original Application No: NPS/WR/040344<br>Original Start Date: 01/06/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 13/12/2023<br>Version End Date: - |
| - | 1188m NW | Status: Historical<br>Licence No: 4/30/12/*G/0063<br>Details: General Farming & Domestic<br>Direct Source: GROUND WATER SOURCE OF SUPPLY<br>Point: BANKS LTD. BORE 3 TWENTY<br>Data Type: Point<br>Name: J W E BANKS LTD<br>Easting: 515550<br>Northing: 319750 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/05/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/04/2004<br>Version End Date: - |
| - | 1913m N | Status: Historical<br>Licence No: 4/30/12/*G/0204<br>Details: General Farming & Domestic<br>Direct Source: GROUND WATER SOURCE OF SUPPLY<br>Point: WHERRYS FARM BOREHOLE TWENTY<br>Data Type: Point<br>Name: GANDY LTD<br>Easting: 516720<br>Northing: 321020 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/04/1967<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/04/1992<br>Version End Date: - |
| - | 1972m S | Status: Historical<br>Licence No: 5/31/14/*G/0074<br>Details: General Farming & Domestic<br>Direct Source: GROUND WATER SOURCE OF SUPPLY<br>Point: BOREHOLE AT SHILLAKER'S FARM<br>Data Type: Point<br>Name: LINCOLNSHIRE COUNTY COUNCIL<br>Easting: 516300<br>Northing: 317100 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/01/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/02/1988<br>Version End Date: - |

| ID | Location | Details | |
|---|---|---|---|
| - | 1975m NW | Status: Historical<br>Licence No: 4/30/12/*G/0063<br>Details: General Farming & Domestic<br>Direct Source: GROUND WATER SOURCE OF SUPPLY<br>Point: BANKS LTD. BORE 1 TWENTY<br>Data Type: Point<br>Name: J W E BANKS LTD<br>Easting: 515450<br>Northing: 320750 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/05/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/04/2004<br>Version End Date: - |

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

## 5.7 Surface water abstractions

| **Records within 2000m** | **34** |
|---|---|

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 33 >**

| ID | Location | Details | |
|---|---|---|---|
| **1** | **On site** | **Status: Active**<br>**Licence No: 5/31/14/*S/0064**<br>**Details: Spray Irrigation - Direct**<br>**Direct Source: SURFACE WATER SOURCE OF SUPPLY**<br>**Point: DRAINS AT DEEPING ST NICHOLAS**<br>**Data Type: Poly4**<br>**Name: P E D C Limited**<br>**Easting: 515742**<br>**Northing: 318438** | **Annual Volume ($m^3$): 80000**<br>**Max Daily Volume ($m^3$): 5000**<br>**Original Application No: NPS/WR/033999**<br>**Original Start Date: 01/03/1966**<br>**Expiry Date: -**<br>**Issue No: 102**<br>**Version Start Date: 01/04/2021**<br>**Version End Date: -** |
| **A** | **On site** | **Status: Historical**<br>**Licence No: 5/31/14/*S/0064**<br>**Details: Spray Irrigation - Direct**<br>**Direct Source: SURFACE WATER SOURCE OF SUPPLY**<br>**Point: COUNTER DRAIN, DEEPING ST NICH**<br>**Data Type: Line**<br>**Name: CHATTERTON & COOKE LTD**<br>**Easting: 515700**<br>**Northing: 318400** | **Annual Volume ($m^3$): -**<br>**Max Daily Volume ($m^3$): -**<br>**Original Application No: -**<br>**Original Start Date: 01/03/1966**<br>**Expiry Date: -**<br>**Issue No: 100**<br>**Version Start Date: 01/01/1992**<br>**Version End Date: -** |

| ID | Location | Details | |
|---|---|---|---|
| A | 13m NW | Status: Historical<br>Licence No: 5/31/14/*S/0064<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: COUNTER DRAIN (A TO B) DEEPING ST NICHOLAS<br>Data Type: Line<br>Name: CHATTERTON & COOKE LTD<br>Easting: 515740<br>Northing: 318430 | Annual Volume ($m^3$): 80000<br>Max Daily Volume ($m^3$): 5000<br>Original Application No: -<br>Original Start Date: 01/03/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 22/12/2005<br>Version End Date: - |
| 3 | 307m NE | Status: Active<br>Licence No: 5/31/14/*S/0011<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: COUNTER DRAIN, DEEPING FEN<br>Data Type: Line<br>Name: R C TINSLEY LTD<br>Easting: 516800<br>Northing: 319300 | Annual Volume ($m^3$): 50000<br>Max Daily Volume ($m^3$): 6000<br>Original Application No: NPS/WR/039783<br>Original Start Date: 01/02/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 26/05/2023<br>Version End Date: - |
| B | 750m NE | Status: Historical<br>Licence No: 5/31/14/*S/0064<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: COUNTER DRAIN (C TO D) DEEPING ST NICHOLAS<br>Data Type: Line<br>Name: CHATTERTON & COOKE LTD<br>Easting: 517080<br>Northing: 319650 | Annual Volume ($m^3$): 80000<br>Max Daily Volume ($m^3$): 5000<br>Original Application No: -<br>Original Start Date: 01/03/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 22/12/2005<br>Version End Date: - |
| - | 755m W | Status: Active<br>Licence No: 4/30/12/*S/0090<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: WEIR DYKE (&TRIBS) BOURNE<br>Data Type: Line<br>Name: FRANK RICHARDSON & SON LTD<br>Easting: 514700<br>Northing: 319100 | Annual Volume ($m^3$): 2273<br>Max Daily Volume ($m^3$): 272.76<br>Original Application No: NPS/WR/040350<br>Original Start Date: 01/06/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 13/12/2023<br>Version End Date: - |
| B | 764m NE | Status: Active<br>Licence No: 5/31/14/*S/0064<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: COUNTER DRAIN (A TO B) DEEPING ST NICHOLAS<br>Data Type: Line<br>Name: P E D C Limited<br>Easting: 517339<br>Northing: 319966 | Annual Volume ($m^3$): 80000<br>Max Daily Volume ($m^3$): 5000<br>Original Application No: NPS/WR/033999<br>Original Start Date: 01/03/1966<br>Expiry Date: -<br>Issue No: 102<br>Version Start Date: 01/04/2021<br>Version End Date: - |

| ID | Location | Details | |
|---|---|---|---|
| B | 800m NE | Status: Historical<br>Licence No: 5/31/14/*S/0064<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: COUNTER DRAIN (NEW)<br>Data Type: Line<br>Name: CHATTERTON & COOKE LTD<br>Easting: 517100<br>Northing: 319700 | Annual Volume ($m^3$): 80000<br>Max Daily Volume ($m^3$): 5000<br>Original Application No: -<br>Original Start Date: 01/03/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 22/12/2005<br>Version End Date: - |
| - | 872m SW | Status: Historical<br>Licence No: 5/31/14/*S/0064<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: FARM DRAINS, DEEPING ST NICHO.<br>Data Type: Point<br>Name: CHATTERTON & COOKE LTD<br>Easting: 516000<br>Northing: 318400 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/03/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/01/1992<br>Version End Date: - |
| - | 1221m SW | Status: Active<br>Licence No: AN/031/0014/033<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: BOURNE SOUTH FEN DRAINS<br>Data Type: Poly4<br>Name: J E G FARMS LTD<br>Easting: 510634<br>Northing: 319395 | Annual Volume ($m^3$): 112640<br>Max Daily Volume ($m^3$): 2969<br>Original Application No: NPS/WR/026194<br>Original Start Date: 17/07/2017<br>Expiry Date: 31/03/2026<br>Issue No: 1<br>Version Start Date: 01/04/2018<br>Version End Date: - |
| - | 1498m W | Status: Historical<br>Licence No: 5/31/14/*S/0241<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: BOURNE SOUTH FEN DRAINS<br>Data Type: Poly4<br>Name: J E G FARMS LTD<br>Easting: 510680<br>Northing: 319140 | Annual Volume ($m^3$): 128640<br>Max Daily Volume ($m^3$): 5606<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: -<br>Issue No: 1<br>Version Start Date: 01/04/2009<br>Version End Date: - |
| - | 1505m SW | Status: Historical<br>Licence No: 5/31/14/*S/0234<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: COUNTER DRAIN AT BASTON FEN<br>Data Type: Line<br>Name: WARD<br>Easting: 514410<br>Northing: 317530 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: 31/05/2003<br>Issue No: 100<br>Version Start Date: 01/04/1998<br>Version End Date: - |

| ID | Location | Details | |
|---|---|---|---|
| - | 1505m SW | Status: Historical<br>Licence No: 5/31/14/*S/0234<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: UN-NAMED DRAIN AT BASTON FEN<br>Data Type: Line<br>Name: WARD<br>Easting: 515350<br>Northing: 318180 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: 31/05/2003<br>Issue No: 100<br>Version Start Date: 01/04/1998<br>Version End Date: - |
| - | 1513m SW | Status: Active<br>Licence No: 5/31/14/*S/0272/R01<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: J E G FARMS LTD<br>Easting: 514989<br>Northing: 318328 | Annual Volume ($m^3$): 3000<br>Max Daily Volume ($m^3$): 180<br>Original Application No: NPS/WR/030378<br>Original Start Date: 01/04/2020<br>Expiry Date: 31/03/2026<br>Issue No: 1<br>Version Start Date: 01/04/2020<br>Version End Date: - |
| - | 1513m SW | Status: Historical<br>Licence No: 5/31/14/*S/0272<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: J E G FARMS LTD<br>Easting: 514989<br>Northing: 318328 | Annual Volume ($m^3$): 3000<br>Max Daily Volume ($m^3$): 180<br>Original Application No: -<br>Original Start Date: 19/05/2008<br>Expiry Date: 31/03/2020<br>Issue No: 1<br>Version Start Date: 19/05/2008<br>Version End Date: - |
| - | 1524m SW | Status: Historical<br>Licence No: 5/31/14/*S/0224<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: LAUD<br>Easting: 514990<br>Northing: 318320 | Annual Volume ($m^3$): 10000<br>Max Daily Volume ($m^3$): 600<br>Original Application No: -<br>Original Start Date: 01/09/1995<br>Expiry Date: -<br>Issue No: 102<br>Version Start Date: 28/11/2005<br>Version End Date: - |
| - | 1524m SW | Status: Historical<br>Licence No: 5/31/14/*S/0272<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: J E G FARMS LTD<br>Easting: 514990<br>Northing: 318320 | Annual Volume ($m^3$): 3000<br>Max Daily Volume ($m^3$): 180<br>Original Application No: -<br>Original Start Date: 19/05/2008<br>Expiry Date: 31/03/2020<br>Issue No: 1<br>Version Start Date: 19/05/2008<br>Version End Date: - |

| ID | Location | Details | |
|---|---|---|---|
| - | 1528m SW | Status: Historical<br>Licence No: 5/31/14/*S/0224<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: LAUD<br>Easting: 514990<br>Northing: 318320 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/09/1995<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/03/1997<br>Version End Date: - |
| - | 1629m W | Status: Active<br>Licence No: 5/31/14/*S/0271/R01<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: Six Limes Ltd<br>Easting: 514934<br>Northing: 318877 | Annual Volume ($m^3$): 7000<br>Max Daily Volume ($m^3$): 420<br>Original Application No: NPS/WR/034114<br>Original Start Date: 01/04/2020<br>Expiry Date: 31/03/2038<br>Issue No: 2<br>Version Start Date: 12/08/2020<br>Version End Date: - |
| - | 1629m W | Status: Historical<br>Licence No: 5/31/14/*S/0271<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: E D & A D Cooke Bourne (Farms) Limited<br>Easting: 514934<br>Northing: 318877 | Annual Volume ($m^3$): 7000<br>Max Daily Volume ($m^3$): 420<br>Original Application No: -<br>Original Start Date: 19/05/2008<br>Expiry Date: 31/03/2020<br>Issue No: 2<br>Version Start Date: 01/04/2015<br>Version End Date: - |
| - | 1634m W | Status: Historical<br>Licence No: 5/31/14/*S/0224<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: LAUD<br>Easting: 514930<br>Northing: 318870 | Annual Volume ($m^3$): 10000<br>Max Daily Volume ($m^3$): 600<br>Original Application No: -<br>Original Start Date: 01/09/1995<br>Expiry Date: -<br>Issue No: 102<br>Version Start Date: 28/11/2005<br>Version End Date: - |
| - | 1634m W | Status: Historical<br>Licence No: 5/31/14/*S/0271<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: E D & A D Cooke Bourne (Farms) Limited<br>Easting: 514930<br>Northing: 318870 | Annual Volume ($m^3$): 7000<br>Max Daily Volume ($m^3$): 420<br>Original Application No: -<br>Original Start Date: 19/05/2008<br>Expiry Date: 31/03/2020<br>Issue No: 2<br>Version Start Date: 01/04/2015<br>Version End Date: - |

| ID | Location | Details | |
|---|---|---|---|
| - | 1636m W | Status: Historical<br>Licence No: 5/31/14/*S/0224<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: DRAIN AT BOURNE<br>Data Type: Line<br>Name: LAUD<br>Easting: 514930<br>Northing: 318860 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/09/1995<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/03/1997<br>Version End Date: - |
| - | 1696m SW | Status: Historical<br>Licence No: 5/31/14/*S/0241<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: RIVER GLEN, BOURNE<br>Data Type: Line<br>Name: J E G FARMS LTD<br>Easting: 515050<br>Northing: 318300 | Annual Volume ($m^3$): 128640<br>Max Daily Volume ($m^3$): 5606<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: -<br>Issue No: 1<br>Version Start Date: 01/04/2009<br>Version End Date: - |
| - | 1965m SW | Status: Active<br>Licence No: AN/031/0014/033<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: TUNNEL BANK DRAIN<br>Data Type: Line<br>Name: J E G FARMS LTD<br>Easting: 510673<br>Northing: 319155 | Annual Volume ($m^3$): 112640<br>Max Daily Volume ($m^3$): 2969<br>Original Application No: NPS/WR/026194<br>Original Start Date: 17/07/2017<br>Expiry Date: 31/03/2026<br>Issue No: 1<br>Version Start Date: 01/04/2018<br>Version End Date: - |
| - | 1968m SW | Status: Historical<br>Licence No: 5/31/14/*S/0241<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: TUNNEL BANK DRAINS<br>Data Type: Line<br>Name: J E G FARMS LTD<br>Easting: 510680<br>Northing: 319140 | Annual Volume ($m^3$): 128640<br>Max Daily Volume ($m^3$): 5606<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: -<br>Issue No: 1<br>Version Start Date: 01/04/2009<br>Version End Date: - |
| - | 1968m SW | Status: Historical<br>Licence No: 5/31/14/*S/0243<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: TUNNEL BANK DRAINS<br>Data Type: Line<br>Name: WATTS<br>Easting: 510680<br>Northing: 319140 | Annual Volume ($m^3$): 44360<br>Max Daily Volume ($m^3$): 3669<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: -<br>Issue No: 1<br>Version Start Date: 01/04/1998<br>Version End Date: - |

| ID | Location | Details | |
|---|---|---|---|
| - | 1980m SE | Status: Historical<br>Licence No: 5/31/14/*S/0064<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: NORTH DROVE DRAIN<br>Data Type: Line<br>Name: CHATTERTON & COOKE LTD<br>Easting: 517100<br>Northing: 316900 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/03/1966<br>Expiry Date: -<br>Issue No: 100<br>Version Start Date: 01/01/1992<br>Version End Date: - |
| - | 1982m SW | Status: Historical<br>Licence No: 5/31/14/*S/0234<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: UN-NAMED DRAIN AT BASTON FEN<br>Data Type: Line<br>Name: WARD<br>Easting: 514790<br>Northing: 316920 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: 31/05/2003<br>Issue No: 100<br>Version Start Date: 01/04/1998<br>Version End Date: - |
| - | 1982m SW | Status: Historical<br>Licence No: 5/31/14/*S/0234<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: UN-NAMED DRAIN AT BASTON FEN<br>Data Type: Line<br>Name: WARD<br>Easting: 515580<br>Northing: 317340 | Annual Volume ($m^3$): -<br>Max Daily Volume ($m^3$): -<br>Original Application No: -<br>Original Start Date: 01/04/1998<br>Expiry Date: 31/05/2003<br>Issue No: 100<br>Version Start Date: 01/04/1998<br>Version End Date: - |
| - | 1986m SE | Status: Historical<br>Licence No: 5/31/14/*S/0064<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: NORTH DROVE DRAIN<br>Data Type: Line<br>Name: CHATTERTON & COOKE LTD<br>Easting: 517080<br>Northing: 316890 | Annual Volume ($m^3$): 80000<br>Max Daily Volume ($m^3$): 5000<br>Original Application No: -<br>Original Start Date: 01/03/1966<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 22/12/2005<br>Version End Date: - |
| - | 1998m SE | Status: Active<br>Licence No: 5/31/14/*S/0152<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: FARM DRAIN - BASTON<br>Data Type: Line<br>Name: P N WATTS<br>Easting: 517847<br>Northing: 317508 | Annual Volume ($m^3$): 100000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: NPS/WR/017671<br>Original Start Date: 01/08/1979<br>Expiry Date: -<br>Issue No: 102<br>Version Start Date: 09/03/2015<br>Version End Date: - |

| ID | Location | Details | |
|---|---|---|---|
| - | 1998m SE | Status: Active<br>Licence No: 5/31/14/*S/0152<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: NORTH DROVE DRAIN - BASTON<br>Data Type: Line<br>Name: P N WATTS<br>Easting: 517847<br>Northing: 317508 | Annual Volume ($m^3$): 100000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: NPS/WR/017671<br>Original Start Date: 01/08/1979<br>Expiry Date: -<br>Issue No: 102<br>Version Start Date: 09/03/2015<br>Version End Date: - |
| - | 1999m SE | Status: Historical<br>Licence No: 5/31/14/*S/0152<br>Details: Spray Irrigation - Direct<br>Direct Source: SURFACE WATER SOURCE OF SUPPLY<br>Point: NORTH DROVE DRAIN - BASTON<br>Data Type: Line<br>Name: WATTS<br>Easting: 517830<br>Northing: 317490 | Annual Volume ($m^3$): 100000<br>Max Daily Volume ($m^3$): 2000<br>Original Application No: -<br>Original Start Date: 01/08/1979<br>Expiry Date: -<br>Issue No: 101<br>Version Start Date: 01/04/2000<br>Version End Date: - |

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

## 5.8 Potable abstractions

| Records within 2000m | 0 |
|---|---|

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

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

## 5.9 Source Protection Zones

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

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

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

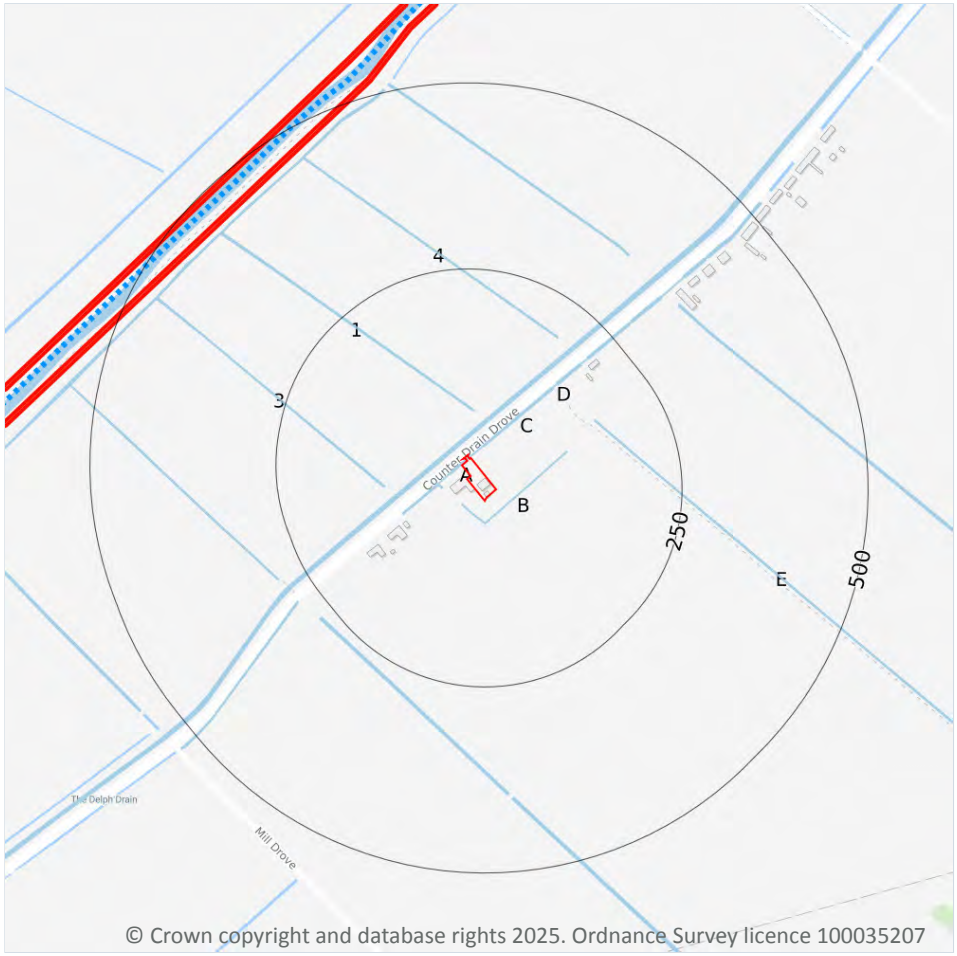
## 5.10 Source Protection Zones (confined aquifer)

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

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

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

# 6 Hydrology

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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 | 19 |
|---|---|

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

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

| ID | Location | Type of water feature | Ground level | Permanence | Name |
|---|---|---|---|---|---|
| **A** | **On site** | **Inland river not influenced by normal tidal action.** | **On ground surface** | **Watercourse contains water year round (in normal circumstances)** | **The Delph Drain** |

| ID | Location | Type of water feature | Ground level | Permanence | Name |
|---|---|---|---|---|---|
| **A** | **On site** | **Inland river not influenced by normal tidal action.** | **Underground** | **Watercourse contains water year round (in normal circumstances)** | **The Delph Drain** |
| **A** | **On site** | **Inland river not influenced by normal tidal action.** | **On ground surface** | **Watercourse contains water year round (in normal circumstances)** | **The Delph Drain** |
| A | 17m NE | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | The Delph Drain |
| A | 19m NW | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | Counter Drain |
| A | 21m SW | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | The Delph Drain |
| B | 23m SE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| C | 24m NE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | The Delph Drain |
| A | 35m W | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| A | 38m W | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | The Delph Drain |
| A | 40m W | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | The Delph Drain |
| 1 | 59m N | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| 3 | 108m W | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| D | 145m NE | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | The Delph Drain |

| ID | Location | Type of water feature | Ground level | Permanence | Name |
|---|---|---|---|---|---|
| D | 152m NE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | The Delph Drain |
| E | 162m NE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| D | 195m NE | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | The Delph Drain |
| 4 | 199m NE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| D | 206m NE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | The Delph Drain |

*This data is sourced from the Ordnance Survey.*

## 6.2 Surface water features

| **Records within 250m** | **8** |
|---|---|

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

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

*This data is sourced from the Ordnance Survey.*

## 6.3 WFD Surface water body catchments

| **Records on site** | **1** |
|---|---|

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

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

| ID | Location | Type | Water body catchment | Water body ID | Operational catchment | Management catchment |
|---|---|---|---|---|---|---|
| **B** | **On site** | **River** | **Vernatt's Drain** | **GB205031050705** | **Welland Lower** | **Welland** |

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

## 6.4 WFD Surface water bodies

| Records identified | 1 |
|---|---|

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

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

| ID | Location | Type | Name | Water body ID | Overall rating | Chemical rating | Ecological rating | Year |
|---|---|---|---|---|---|---|---|---|
| - | 1992m SE | River | Vernatt's Drain | GB205031050705 ↗ | Moderate | Fail | Moderate | 2019 |

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

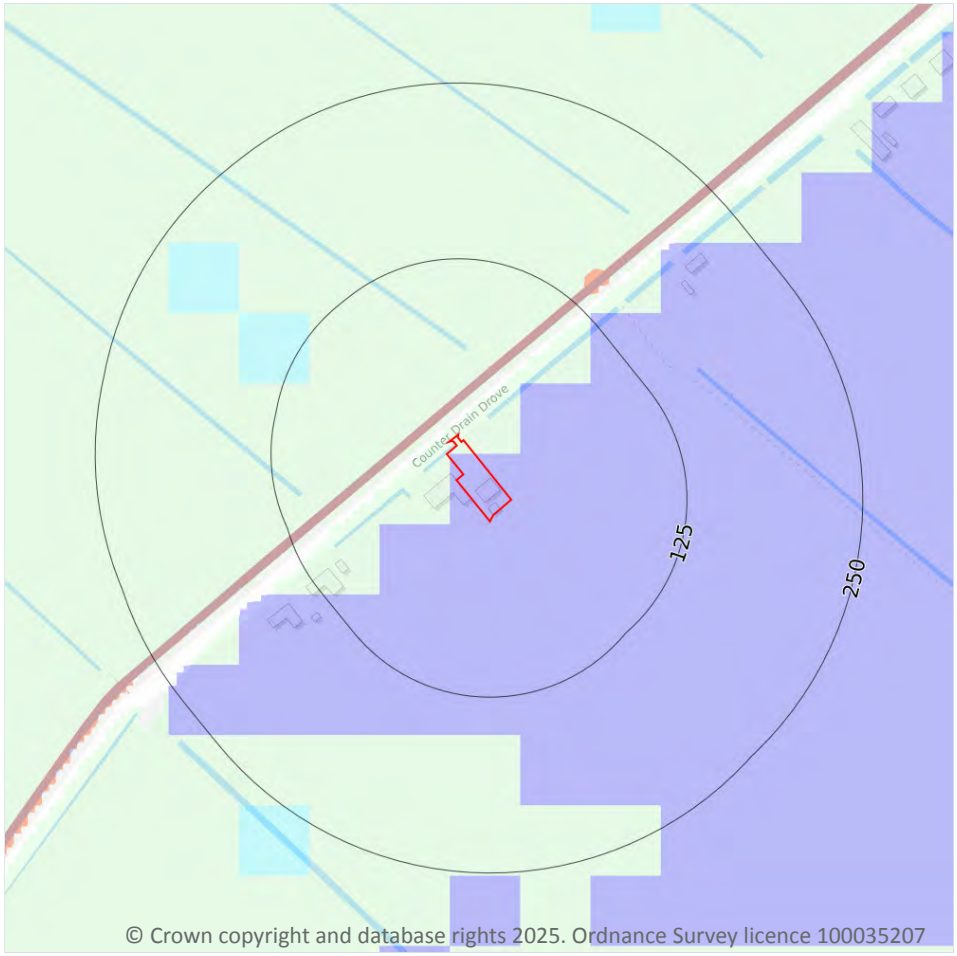
## 6.5 WFD Groundwater bodies

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

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.

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

# 7 River and coastal flooding




Site Outline

Search buffers in metres (m)

River and coastal flooding:

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

## 7.1 Risk of flooding from rivers and the sea

| Records within 50m | 5 |
|---|---|

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

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

| Distance | Flood risk category |
|---|---|
| **On site** | **Medium** |
| 0 - 50m | High |

*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.*

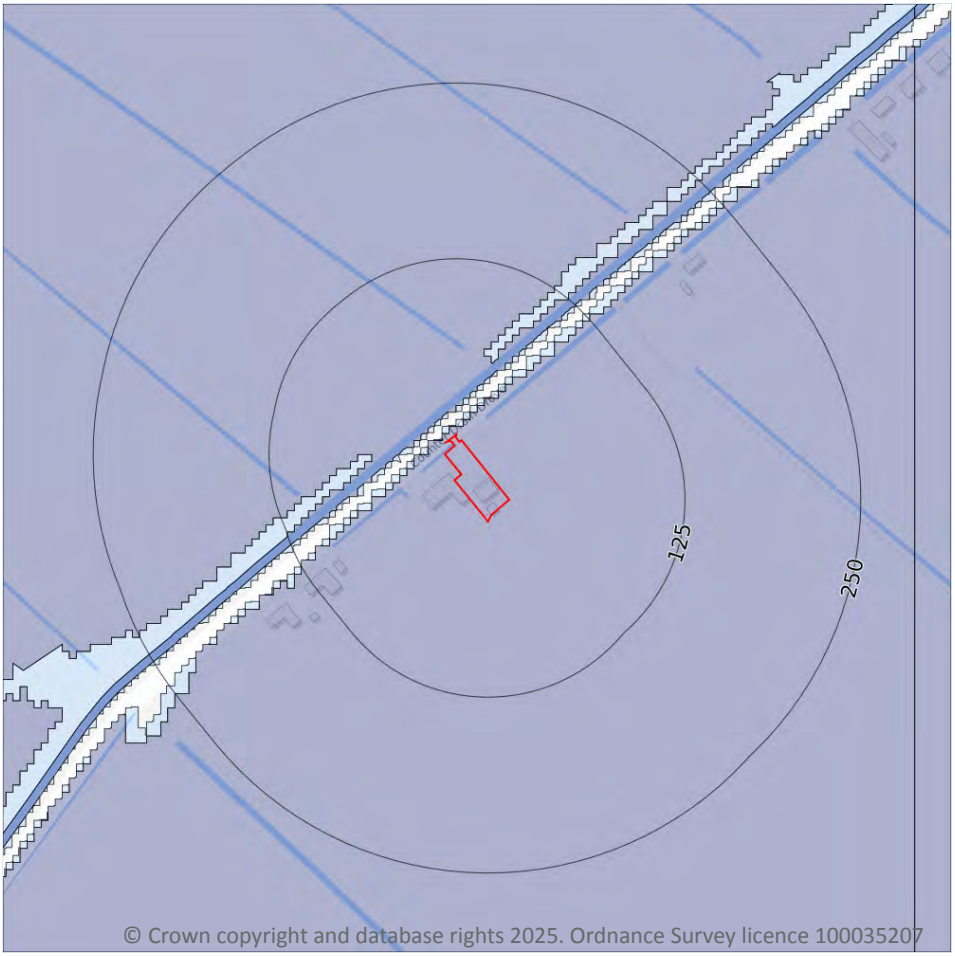
## 7.5 Flood Storage Areas

| **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




Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

## 7.6 Flood Zone 2

| Records within 50m | 1 |
|---|---|

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

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

| Location | Type |
|---|---|
| 4m NW | Zone 2 - (Fluvial /Tidal Models) |

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

## 7.7 Flood Zone 3

| Records within 50m | 1 |
|---|---|

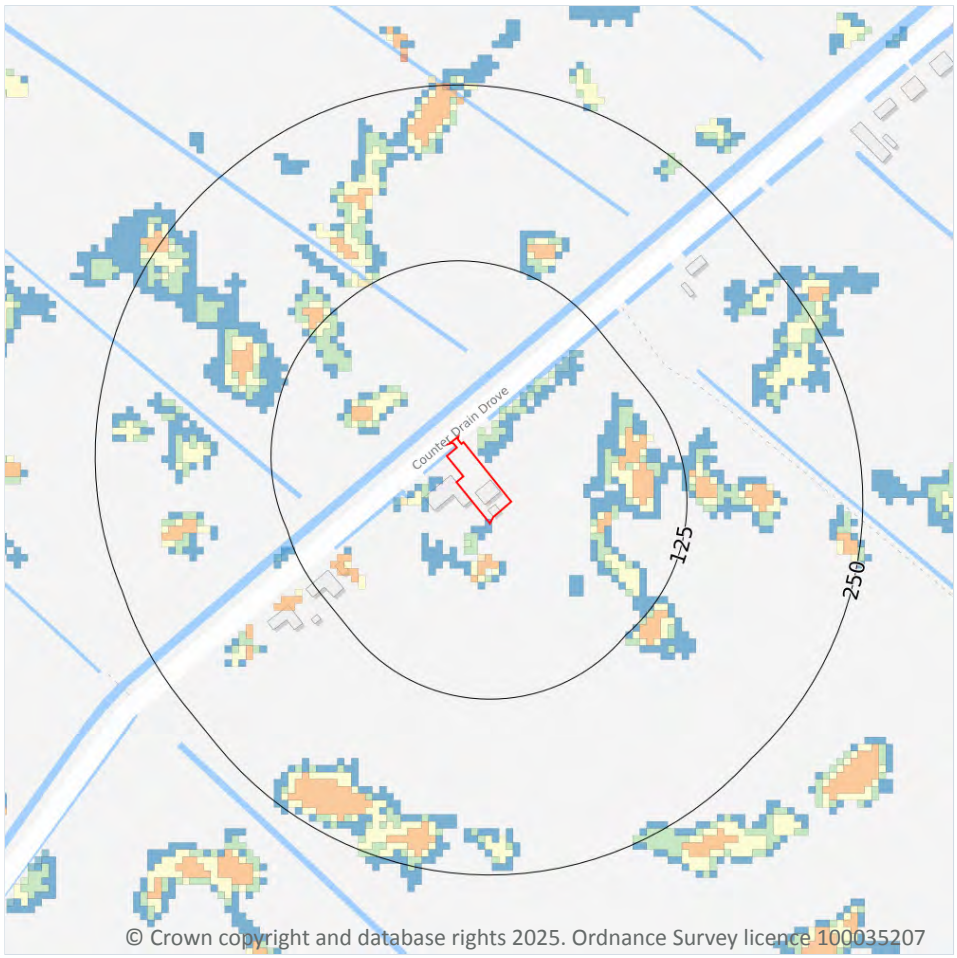
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

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

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

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

# 8 Surface water flooding




Site Outline
Search buffers in metres (m)

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

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

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

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

## 8.1 Surface water flooding

| | |
|---|---|
| **Highest risk on site** | **1 in 1000 year, 0.1m - 0.3m** |
| **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 51 >**

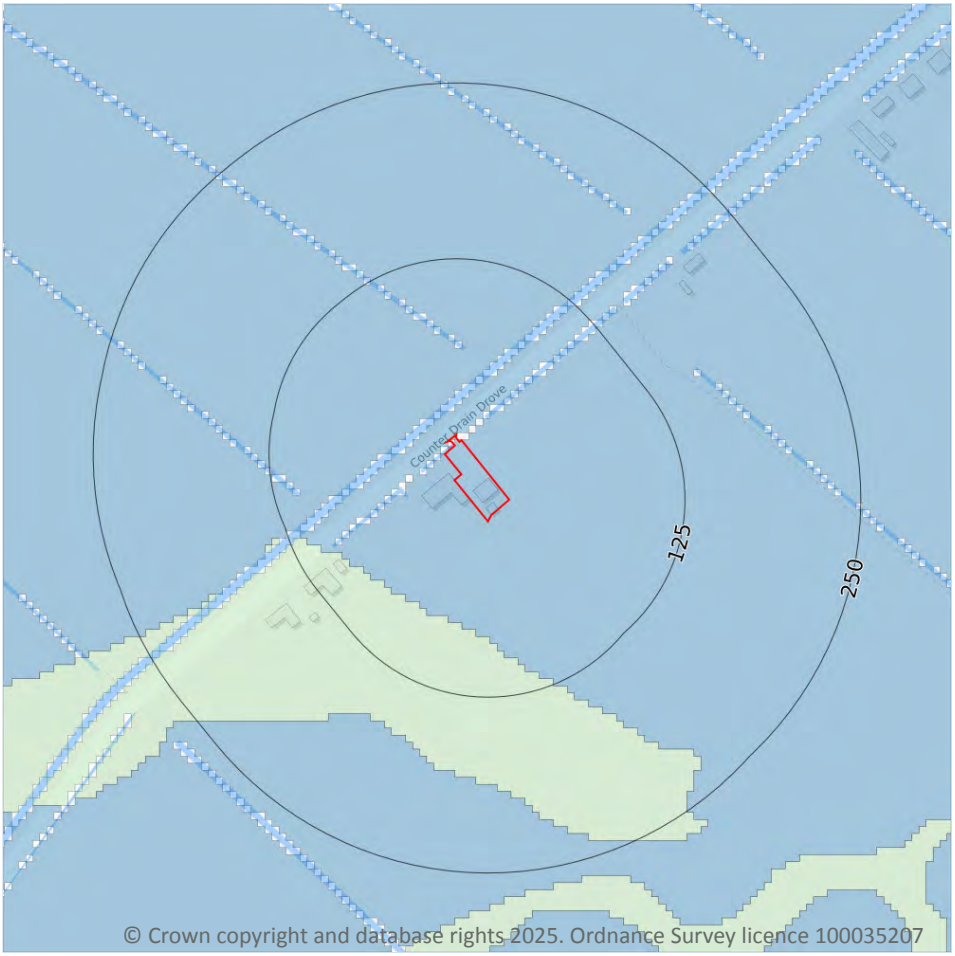
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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 | Between 0.1m and 0.3m |
| 1 in 250 year | Negligible |
| 1 in 100 year | Negligible |
| 1 in 30 year | Negligible |

*This data is sourced from Ambiental Risk Analytics.*

# 9 Groundwater flooding




Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

## 9.1 Groundwater flooding

| | |
|---|---|
| **Highest risk on site** | **Negligible** |
| **Highest risk within 50m** | **Negligible** |

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

Features are displayed on the Groundwater flooding map on **page 53 >**

*This data is sourced from Ambiental Risk Analytics.*

# 10 Environmental designations

## 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 | 0 |
|---|---|

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

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

## 10.7 Designated Ancient Woodland

| Records within 2000m | 0 |
|---|---|

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

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

## 10.8 Biosphere Reserves

| Records within 2000m | 0 |
|---|---|

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

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

## 10.9 Forest Parks

| Records within 2000m | 0 |
|---|---|

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

*This data is sourced from the Forestry Commission.*

## 10.10 Marine Conservation Zones

| Records within 2000m | 0 |
|---|---|

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

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

## 10.11 Green Belt

| Records within 2000m | 0 |
|---|---|

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

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

## 10.12 Proposed Ramsar sites

| Records within 2000m | 0 |
|---|---|

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

*This data is sourced from Natural England.*

## 10.13 Possible Special Areas of Conservation (pSAC)

| Records within 2000m | 0 |
|---|---|

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

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

## 10.14 Potential Special Protection Areas (pSPA)

| Records within 2000m | 0 |
|---|---|

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

*This data is sourced from Natural England.*

## 10.15 Nitrate Sensitive Areas

| Records within 2000m | 0 |
|---|---|

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

*This data is sourced from Natural England.*

## 10.16 Nitrate Vulnerable Zones

| Records within 2000m | 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** | **Vernatt's Drain NVZ** | **Surface Water** | **379** | **Existing** |
| 473m NW | Glen NVZ | Surface Water | 378 | Existing |
| 513m NW | Black Sluice IDB draining to the South Forty Foot Drain NVZ | Surface Water | 669 | Existing |

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

# SSSI Impact Zones and Units

## 10.17 SSSI Impact Risk Zones

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

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.

*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

## 11.1 World Heritage Sites

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

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

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

## 11.2 Area of Outstanding Natural Beauty

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

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

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

## 11.3 National Parks

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

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

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

## 11.4 Listed Buildings

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

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

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

## 11.5 Conservation Areas

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

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

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

## 11.6 Scheduled Ancient Monuments

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

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

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

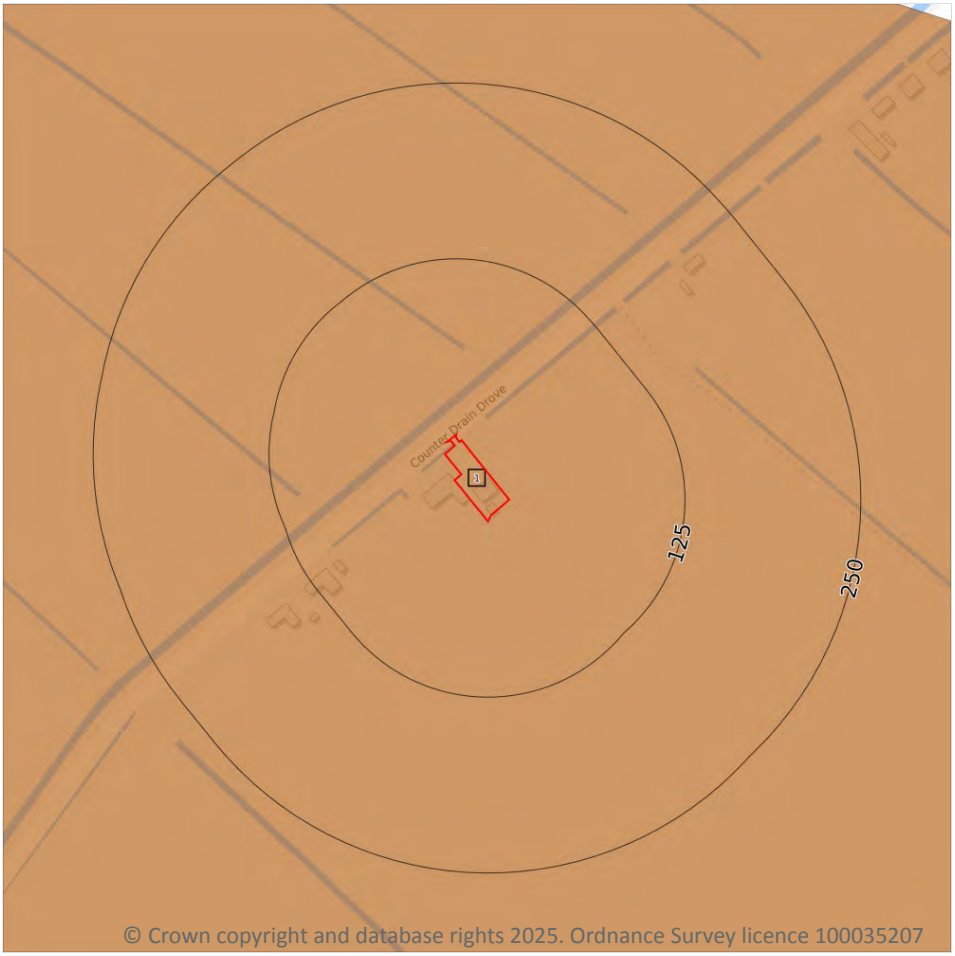
## 11.7 Registered Parks and Gardens

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

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

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

# 12 Agricultural designations




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 61 >**

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

*This data is sourced from Natural England.*

## 12.2 Open Access Land

| **Records within 250m** | **0** |
|---|---|

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

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

## 12.3 Tree Felling Licences

| **Records within 250m** | **0** |
|---|---|

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

*This data is sourced from the Forestry Commission.*

## 12.4 Environmental Stewardship Schemes

| **Records within 250m** | **0** |
|---|---|

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

*This data is sourced from Natural England.*

## 12.5 Countryside Stewardship Schemes

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

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

*This data is sourced from Natural England.*

# 13 Habitat designations

## 13.1 Priority Habitat Inventory

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

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

*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 65 >**

| ID | Location | Artificial | Superficial | Bedrock | Mass movement | Sheet No. |
|---|---|---|---|---|---|---|
| **1** | **On site** | **No coverage** | **Full** | **Full** | **No coverage** | **TF11NE** |

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

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

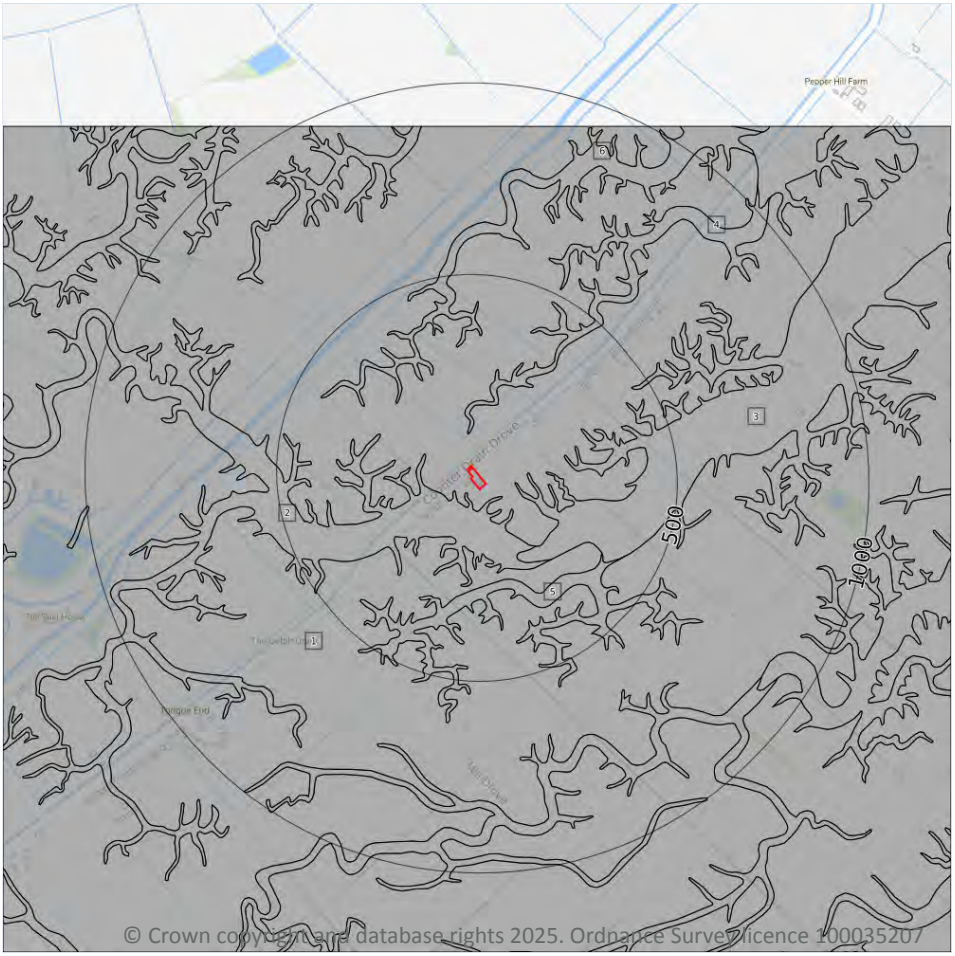
## 14.2 Artificial and made ground (10k)

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

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

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

# Geology 1:10,000 scale - Superficial




Site Outline

Search buffers in metres (m)

Landslip (10k)

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

## 14.3 Superficial geology (10k)

**Records within 500m** **6**

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 67 >**

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| **1** | **On site** | **BYD-XCZ** | **Barroway Drove Beds - Clay And Silt** | **Clay And Silt** |
| 2 | 31m SW | BYD-XSZ | Barroway Drove Beds - Sand And Silt | Sand And Silt |
| 3 | 77m E | TTB-XCZ | Terrington Beds - Clay And Silt | Clay And Silt |
| 4 | 84m N | BYD-XSZ | Barroway Drove Beds - Sand And Silt | Sand And Silt |

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| 5 | 243m S | BYD-XSZ | Barroway Drove Beds - Sand And Silt | Sand And Silt |
| 6 | 253m NW | BYD-XSZ | Barroway Drove Beds - Sand And Silt | Sand And Silt |

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

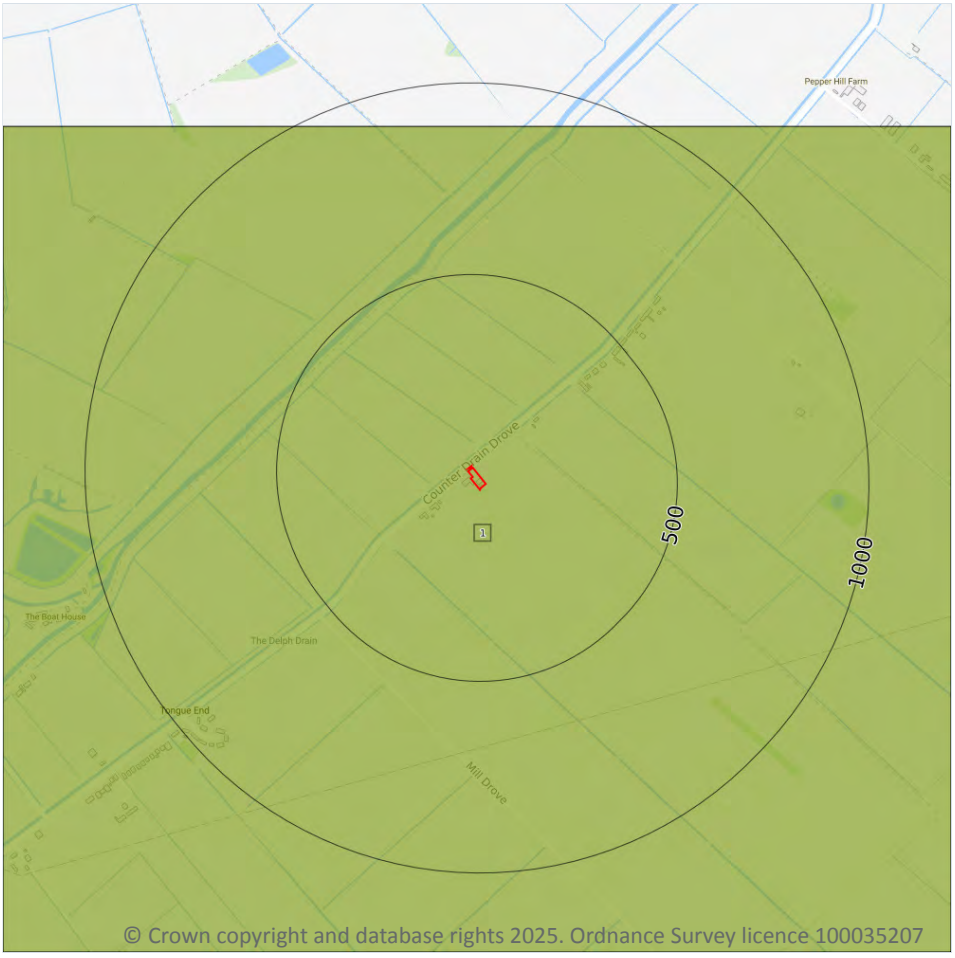
## 14.4 Landslip (10k)

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

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

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

# Geology 1:10,000 scale - Bedrock




Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

## 14.5 Bedrock geology (10k)

| Records within 500m | 1 |
|---|---|

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 69 >**

| ID | Location | LEX Code | Description | Rock age |
|---|---|---|---|---|
| **1** | **On site** | **OXC-MDST** | **Oxford Clay Formation - Mudstone** | **Oxfordian Age - Callovian Age** |

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

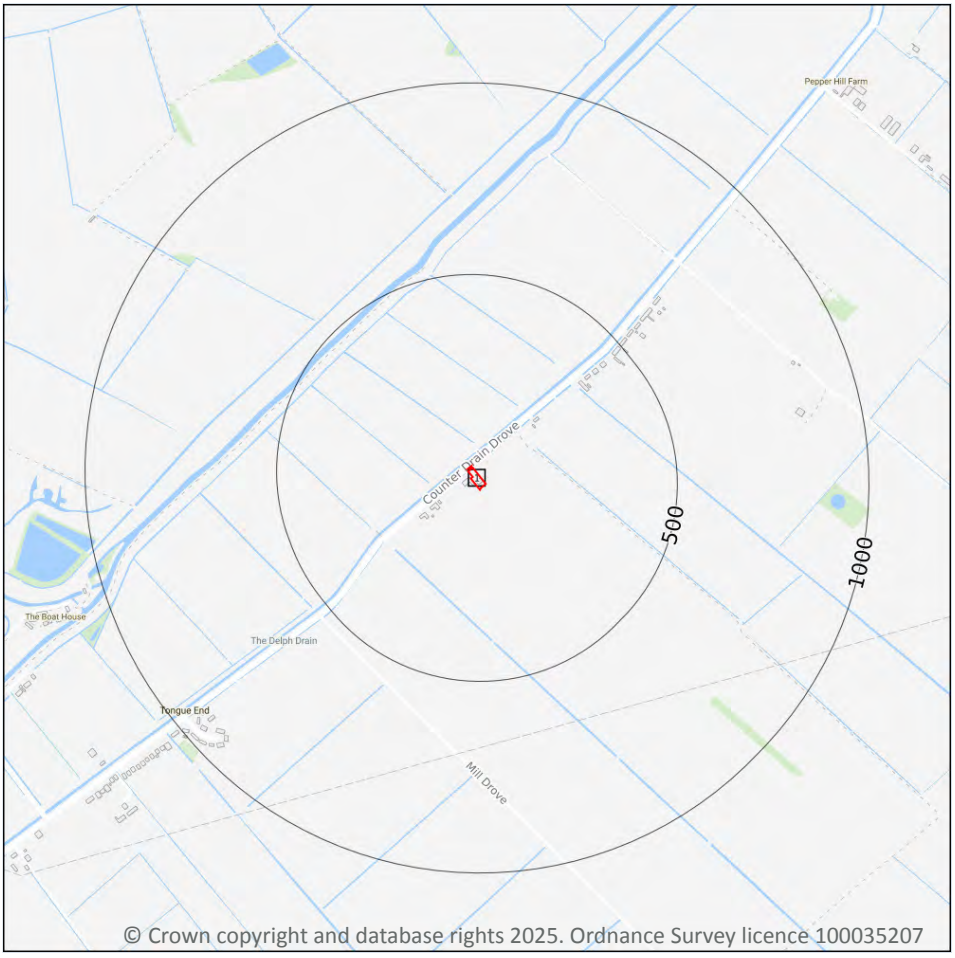
## 14.6 Bedrock faults and other linear features (10k)

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

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

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

# 15 Geology 1:50,000 scale - Availability




Site Outline

Search buffers in metres (m)

Geological map tile

## 15.1 50k Availability

| Records within 500m | 1 |
|---|---|

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 71 >**

| ID | Location | Artificial | Superficial | Bedrock | Mass movement | Sheet No. |
|---|---|---|---|---|---|---|
| **1** | **On site** | **Full** | **Full** | **Full** | **No coverage** | **EW144_spalding_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.*

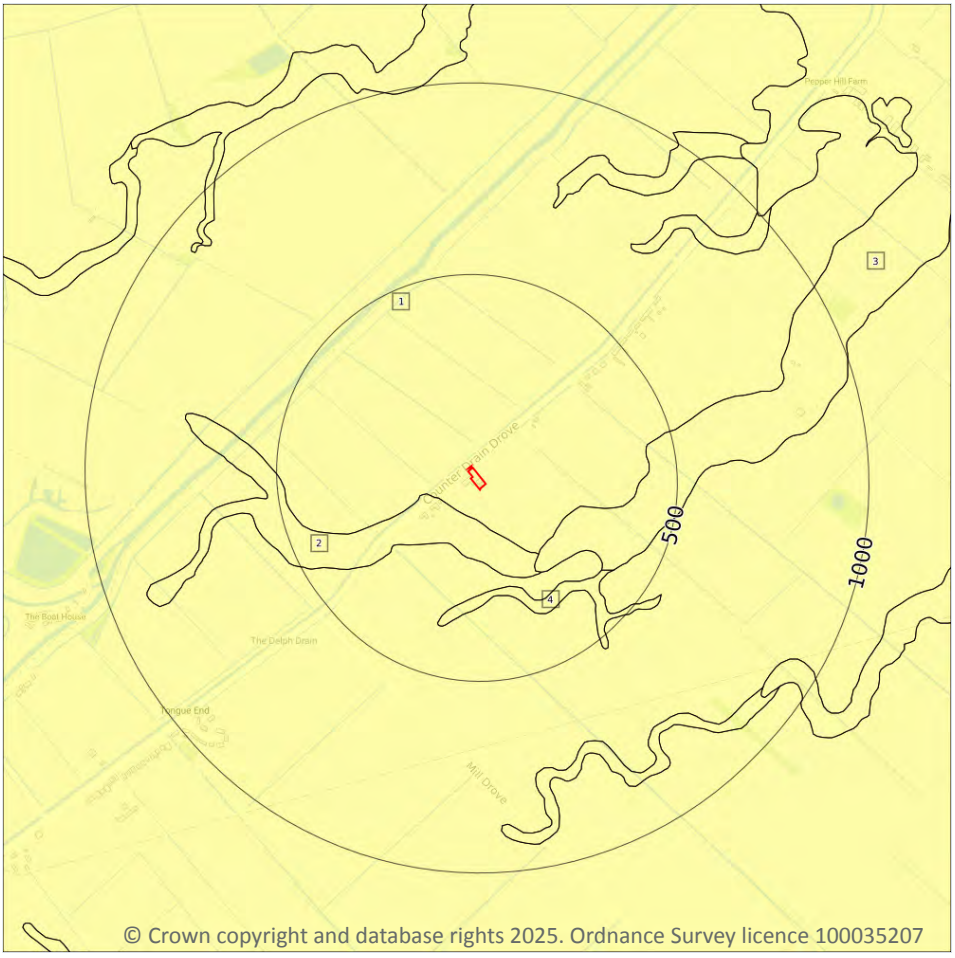
## 15.3 Artificial ground permeability (50k)

| 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** **4**

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 73 >**

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| **1** | **On site** | **TFD1-XCZ** | **TIDAL FLAT DEPOSITS, 1** | **CLAY AND SILT** |
| 2 | 76m S | TFD1-XSZ | TIDAL FLAT DEPOSITS, 1 | SAND AND SILT |
| 3 | 219m SE | TFD-XCZ | TIDAL FLAT DEPOSITS | CLAY AND SILT |
| 4 | 263m S | TFD1-XSZ | TIDAL FLAT DEPOSITS, 1 | SAND AND SILT |

*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** | **Low** | **Very Low** |

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

## 15.6 Landslip (50k)

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

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

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

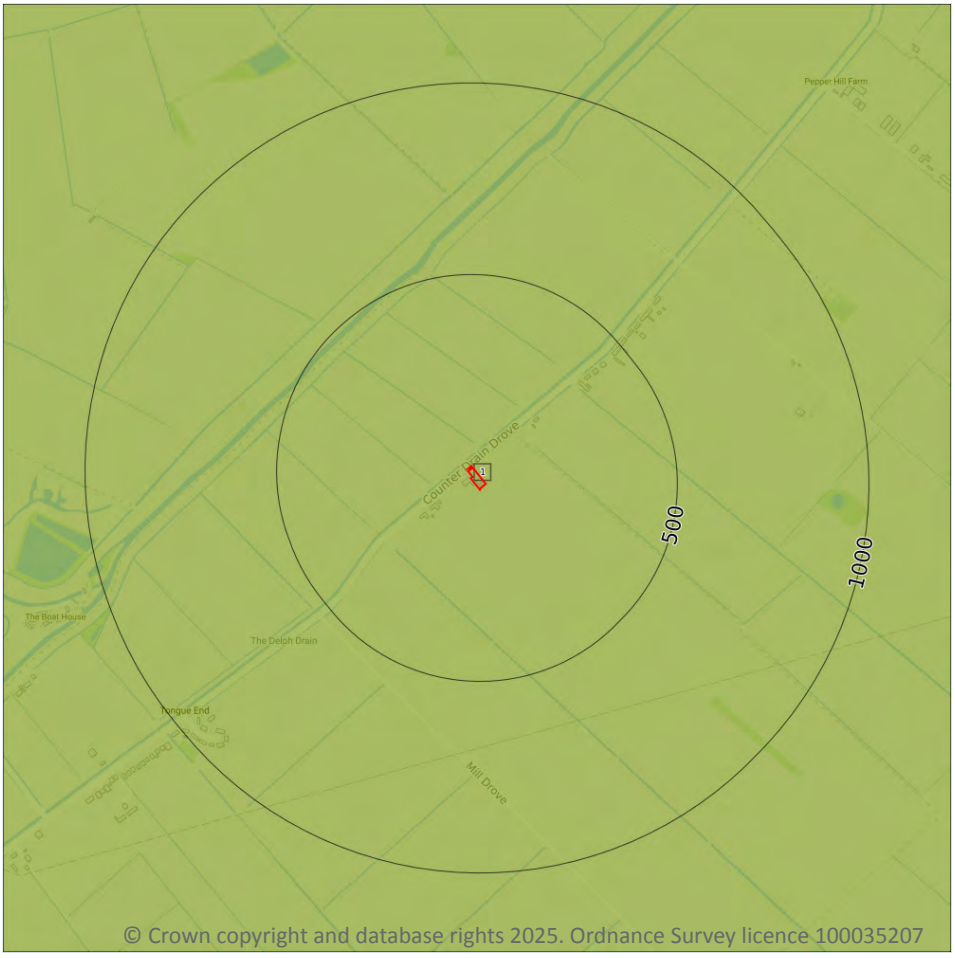
## 15.7 Landslip permeability (50k)

| Records within 50m | 0 |
|---|---|

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

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

# Geology 1:50,000 scale - Bedrock




Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

## 15.8 Bedrock geology (50k)

| Records within 500m | 1 |
|---|---|

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 75 >**

| ID | Location | LEX Code | Description | Rock age |
|---|---|---|---|---|
| **1** | **On site** | **OXC-MDST** | **OXFORD CLAY FORMATION - MUDSTONE** | **CALLOVIAN** |

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

## 15.9 Bedrock permeability (50k)

| Records within 50m | 1 |
|---|---|

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

| Location | Flow type | Maximum permeability | Minimum permeability |
|---|---|---|---|
| **On site** | **Fracture** | **Low** | **Very Low** |

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

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

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

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

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

# 16 Boreholes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Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

## 16.1 BGS Boreholes

| Records within 250m | 3 |
|---|---|

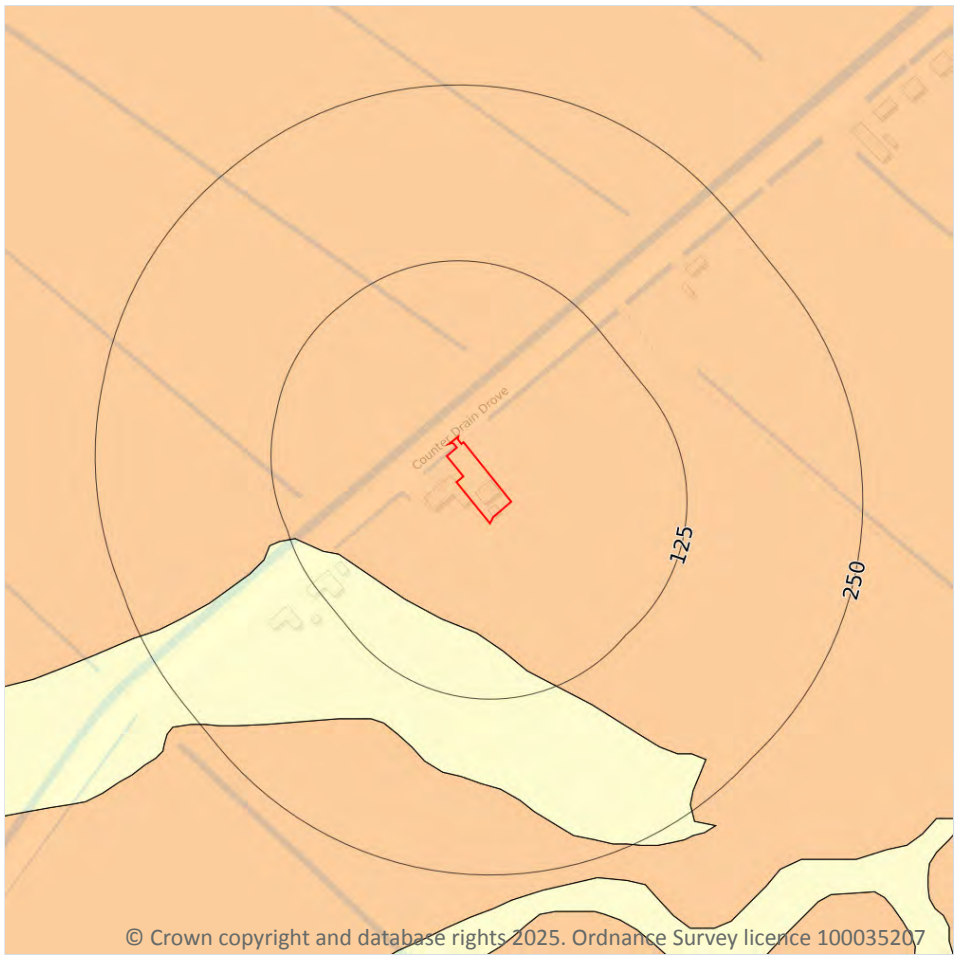
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several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

Features are displayed on the Boreholes map on **page 77 >**

| ID | Location | Grid reference | Name | Length | Confidential | Web link |
|---|---|---|---|---|---|---|
| 1 | 146m NE | 516720 319140 | NR SCHOOL FARM TONGUE END BOURNE | 7.0 | N | 471311 ↗ |
| A | 177m NE | 516730 319180 | SCHOOL FARM,DEEPING 144/80 | 68.02 | N | 471303 ↗ |
| A | 177m NE | 516730 319180 | SCHOOL FARM DEEPING FEN | 68.03 | N | 471339 ↗ |

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

# 17 Natural ground subsidence - Shrink swell clays




## 17.1 Shrink swell clays

| Records within 50m | 1 |
|---|---|

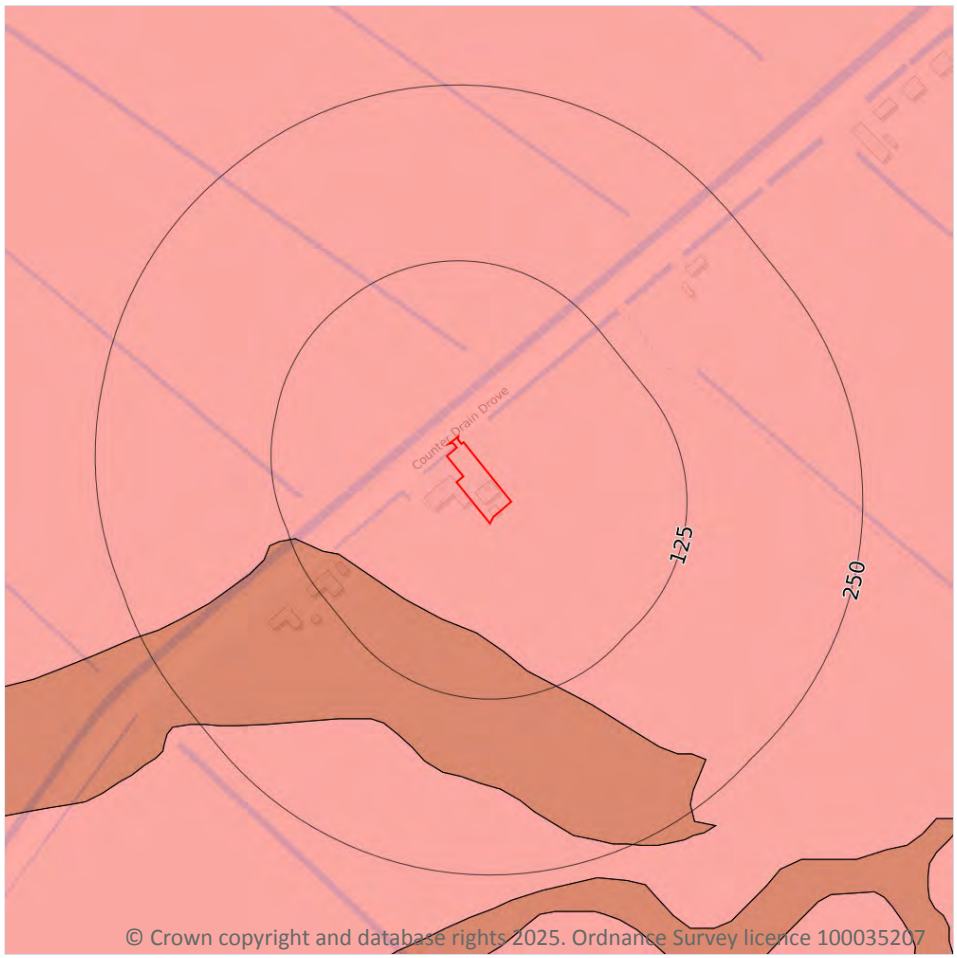
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 79 >**

| 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 |
|---|---|

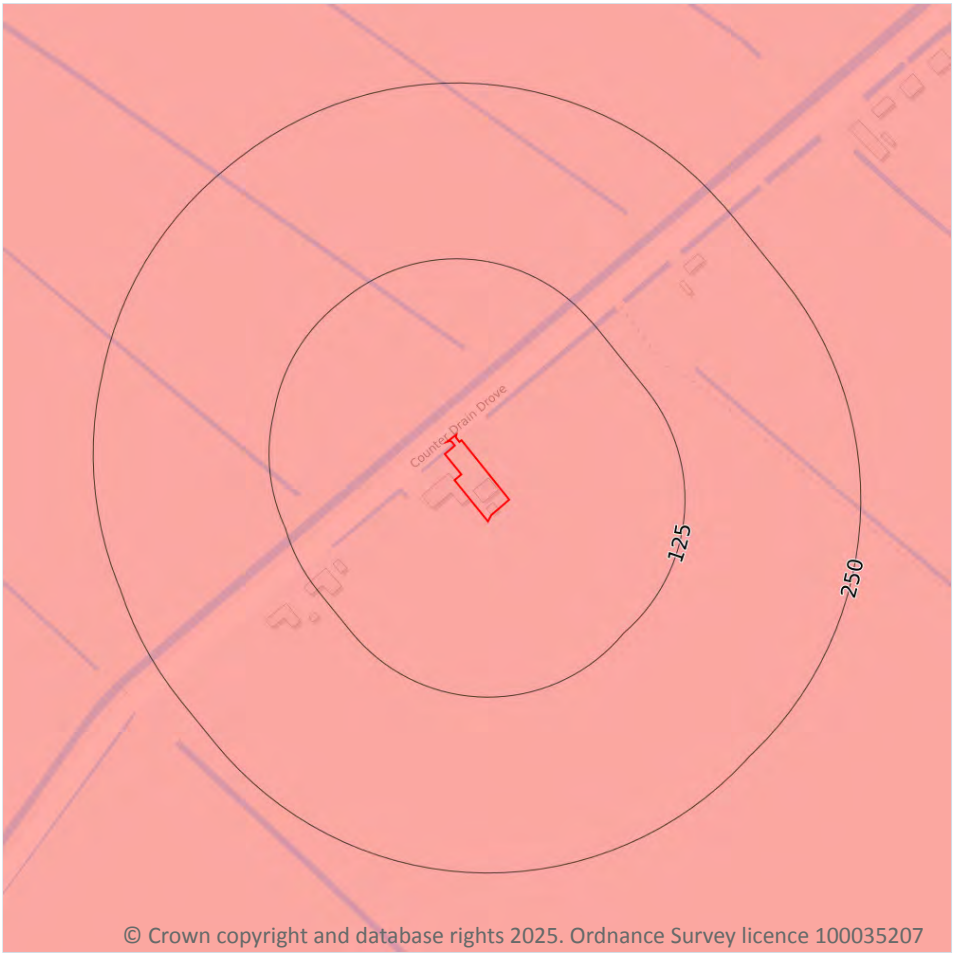
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 80 >**

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

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

# Natural ground subsidence - Compressible deposits

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Site Outline

Search buffers in metres (m)

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

## 17.3 Compressible deposits

| Records within 50m | 1 |
|---|---|

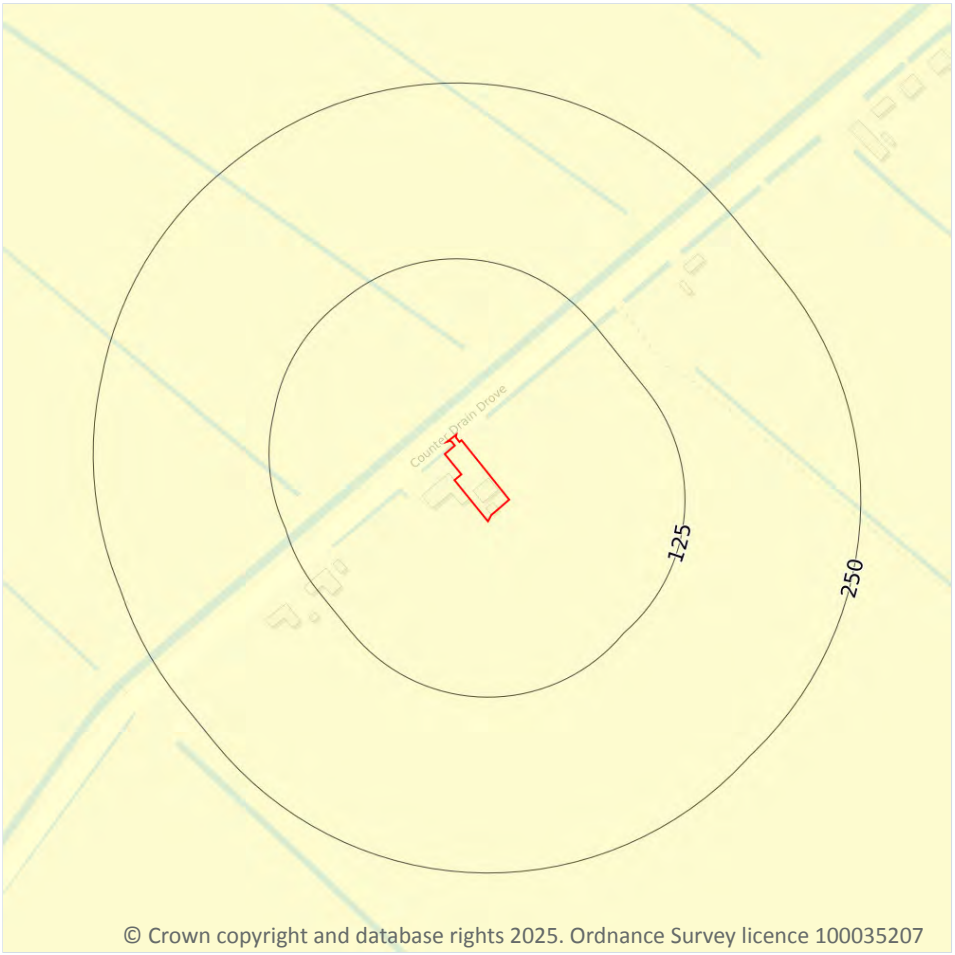
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 81 >**

| Location | Hazard rating | Details |
|---|---|---|
| **On site** | **Moderate** | **Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.** |

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

# Natural ground subsidence - Collapsible deposits

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Site Outline

Search buffers in metres (m)

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

## 17.4 Collapsible deposits

| Records within 50m | 1 |
|---|---|

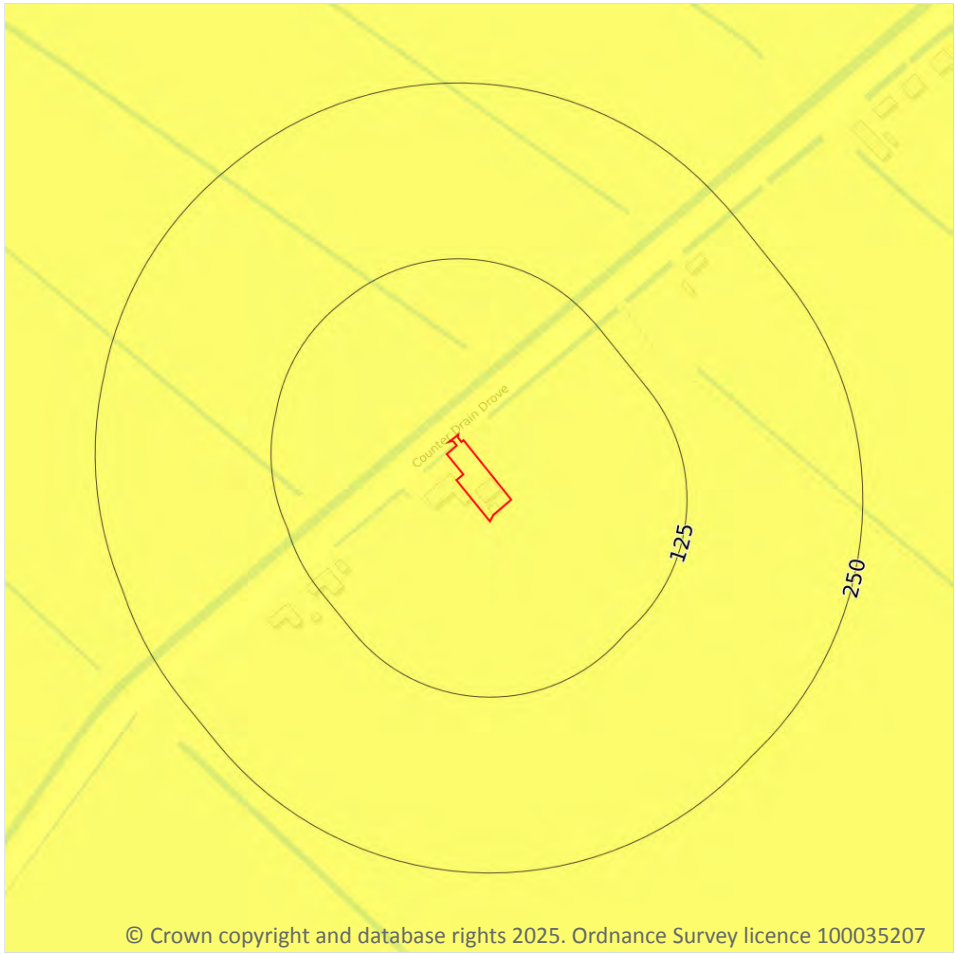
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 82 >**

| Location | Hazard rating | Details |
|---|---|---|
| **On site** | **Negligible** | **Deposits with potential to collapse when loaded and saturated are believed not 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 |
|---|---|

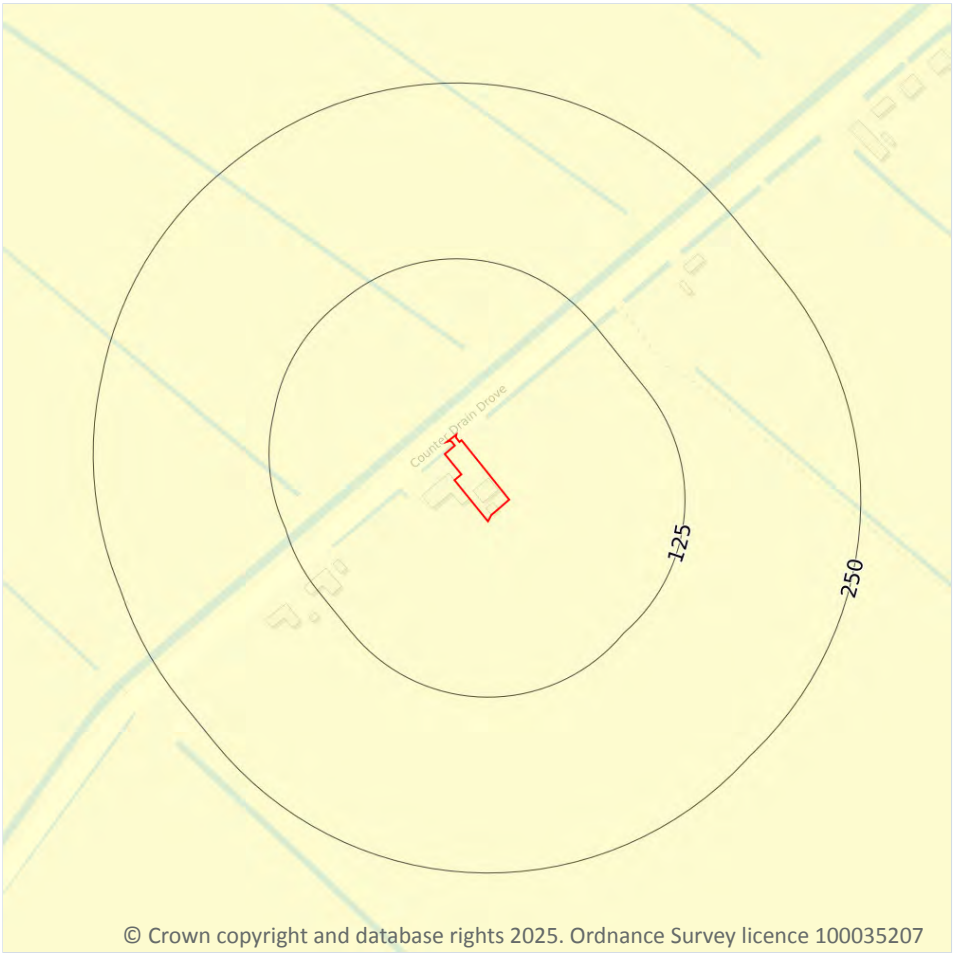
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 83 >**

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

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

# Natural ground subsidence - Ground dissolution of soluble rocks

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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 84 >**

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

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

# 18 Mining and ground workings

## 18.1 BritPits

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

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

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

## 18.2 Surface ground workings

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

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

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

## 18.3 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 is 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 | 0 |
|---|---|

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

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

## 18.6 Non-coal mining

| Records within 1000m | 0 |
|---|---|

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

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

## 18.7 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 |
|---|---|

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

## 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 | 0 |
|---|---|

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

*This data is sourced from Stantec UK Ltd.*

## 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

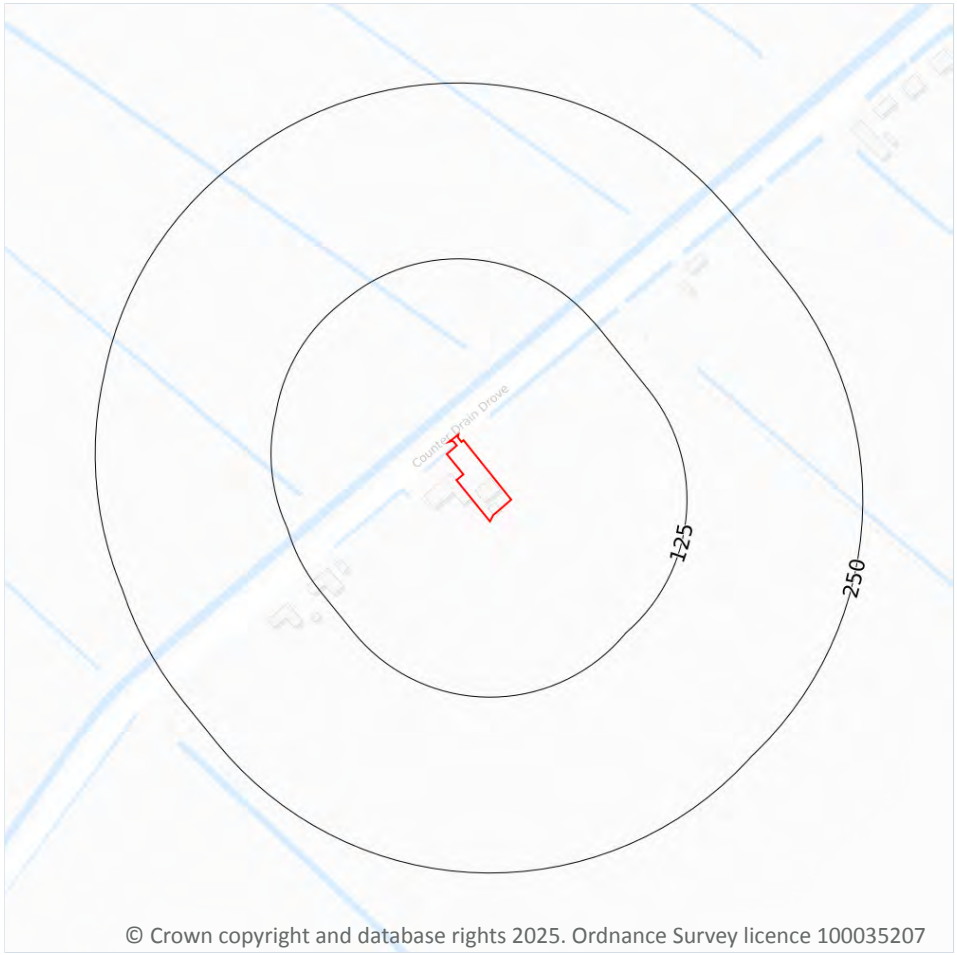
| Records within 500m | 0 |
|---|---|

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 92 >**

| 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 | 2 |
|---|---|

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

| Location | Arsenic | Bioaccessible Arsenic | Lead | Bioaccessible Lead | Cadmium | Chromium | Nickel |
|---|---|---|---|---|---|---|---|
| **On site** | **15 - 25 mg/kg** | **No data** | **100 mg/kg** | **60 mg/kg** | **1.8 mg/kg** | **60 - 90 mg/kg** | **30 - 45 mg/kg** |
| 48m W | 15 - 25 mg/kg | No data | 100 mg/kg | 60 mg/kg | 1.8 mg/kg | 60 - 90 mg/kg | 30 - 45 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 $km^2$).

*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 $km^2$.

*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.*

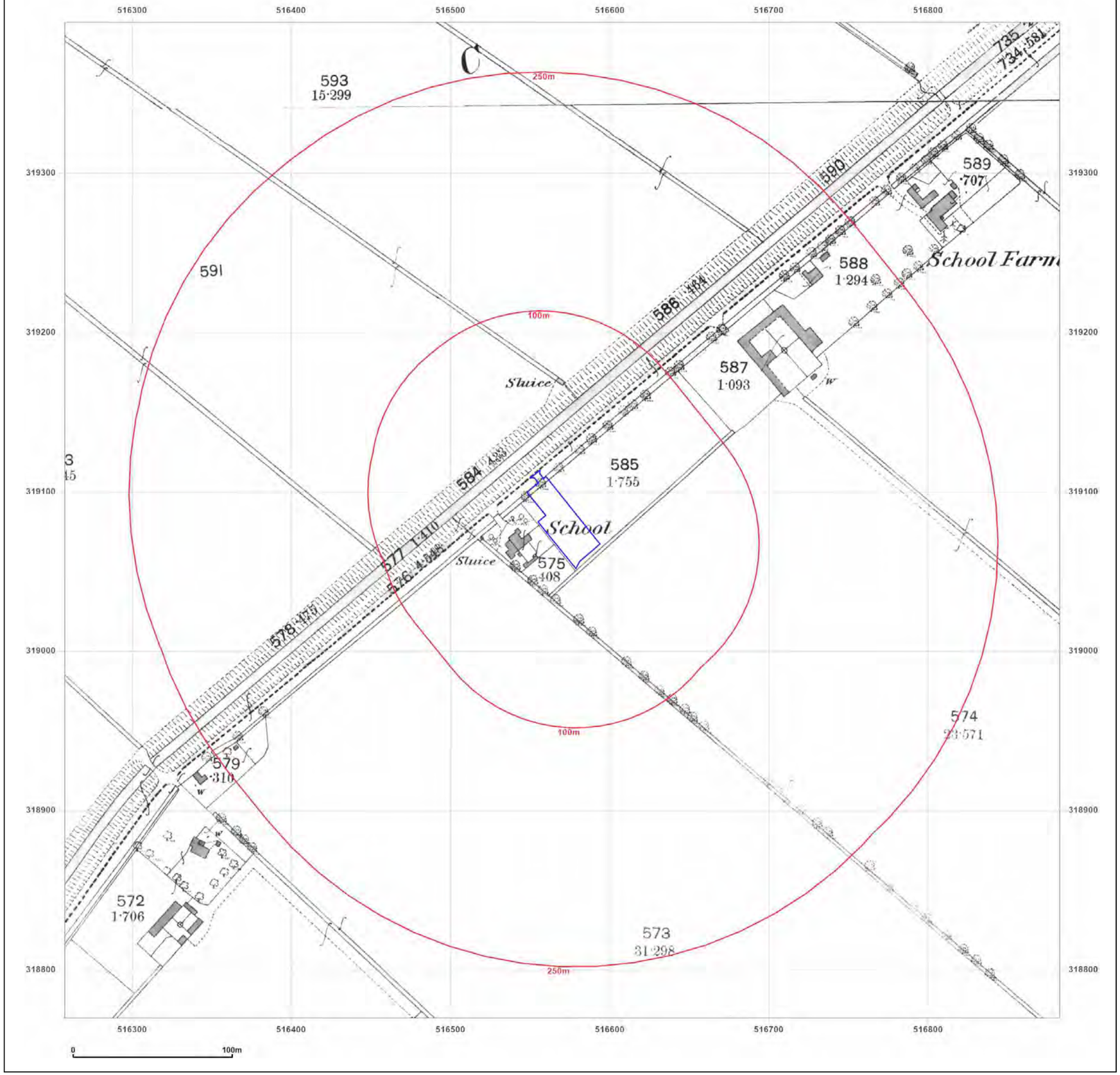
## Data providers

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 ↗.

## Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: www.groundsure.com/terms-and-conditions-april-2023/ ↗.

# Appendix 4: Historical Map Selection




**Site Details:**

The Old Mission, Spalding,
Lincolnshire, PE11 3JN

**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
**Grid Ref:** 516570, 319082

**Map Name:** County Series

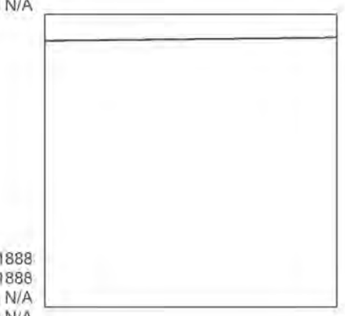
**Map date:** **1888**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1888
Revised 1888
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1888
Revised 1888
Edition N/A
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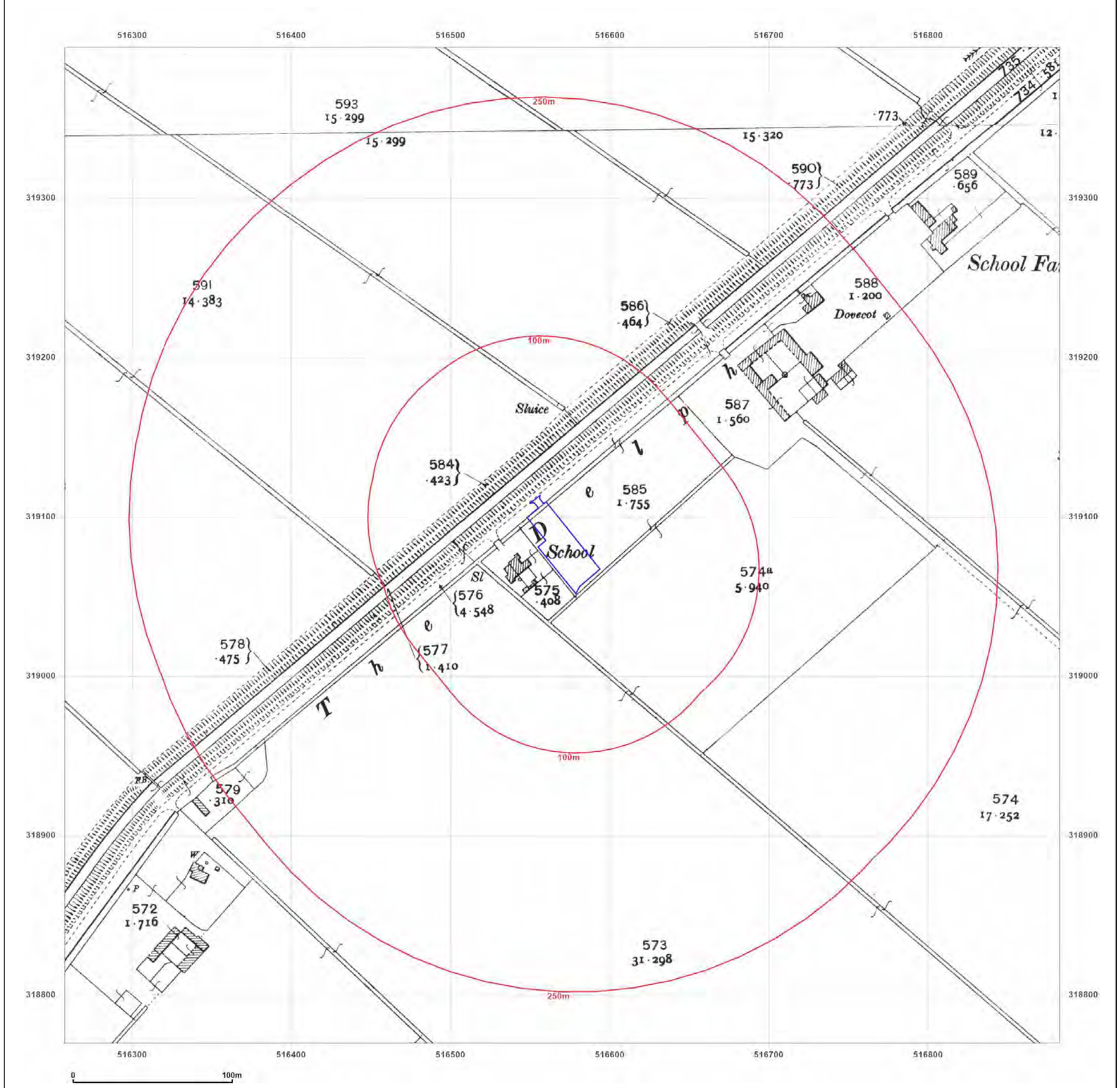
Production date: 29 September 2025

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf




Groundsure INSIGHTS

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**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
**Grid Ref:** 516570, 319082

**Map Name:** County Series

**Map date:** **1904**

**Scale:** 1:2,500

**Printed at:** 1:2,500

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Revised 1904
Edition N/A
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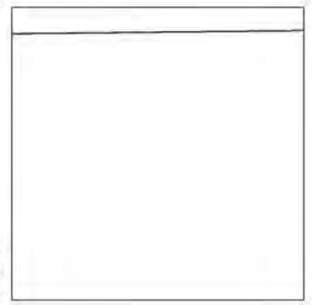

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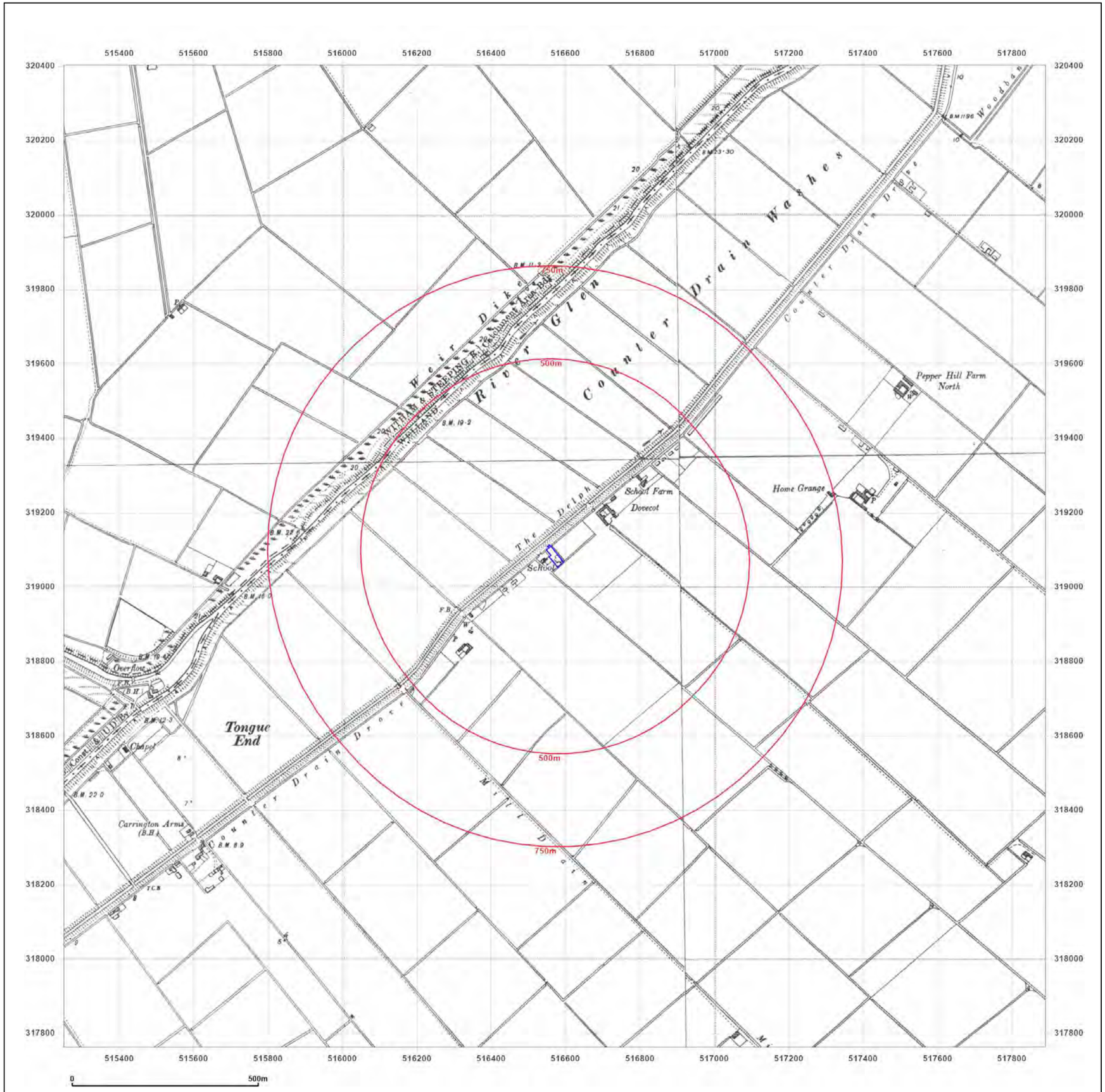


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**Site Details:**

The Old Mission, Spalding,
Lincolnshire, PE11 3JN

**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
**Grid Ref:** 516570, 319082

**Map Name:** County Series

**Map date:** **1950**

**Scale:** 1:10,560

**Printed at:** 1:10,560

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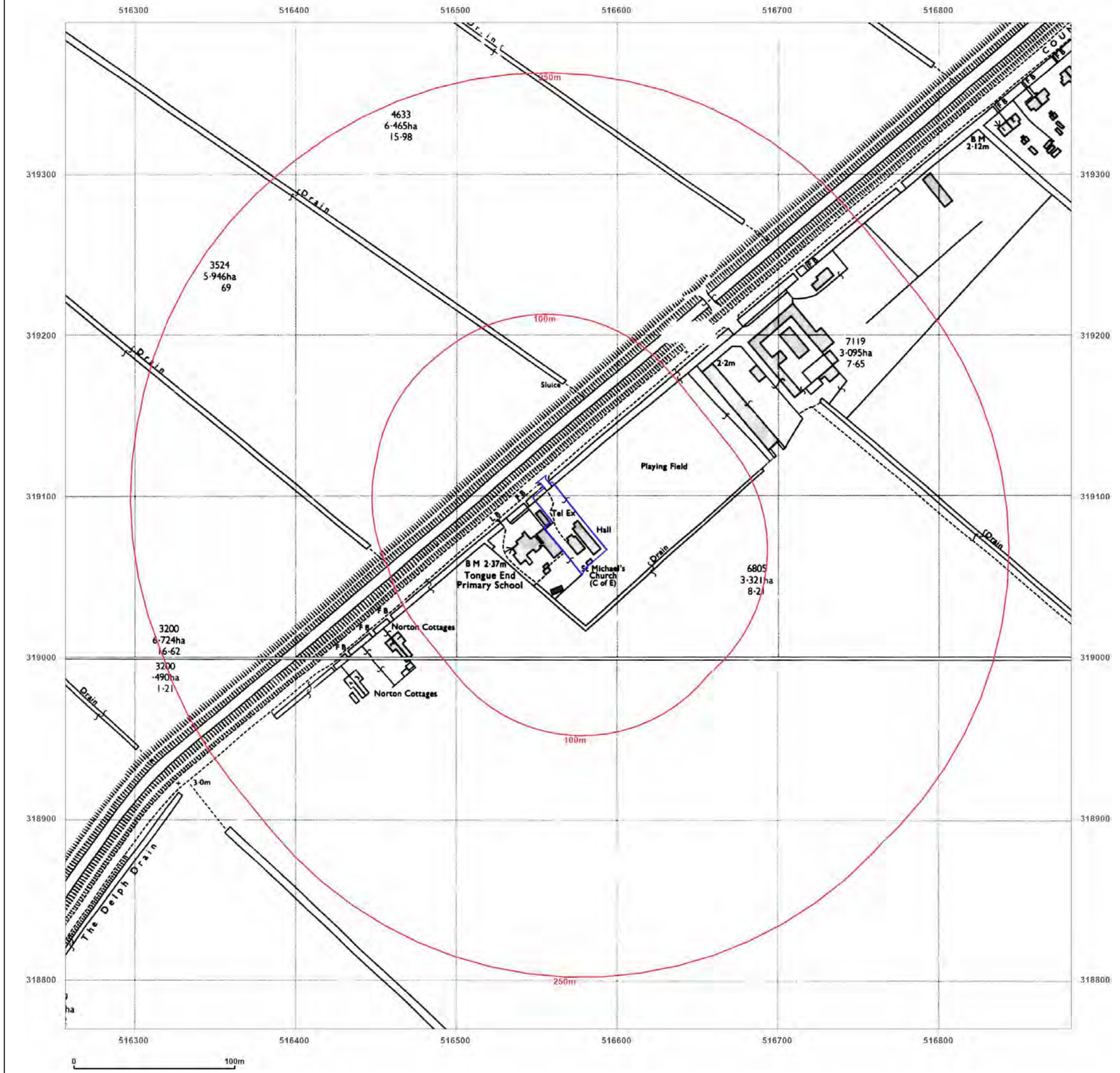


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**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
**Grid Ref:** 516570, 319082

**Map Name:** National Grid

**Map date:** **1979**

**Scale:** 1:2,500

**Printed at:** 1:2,500

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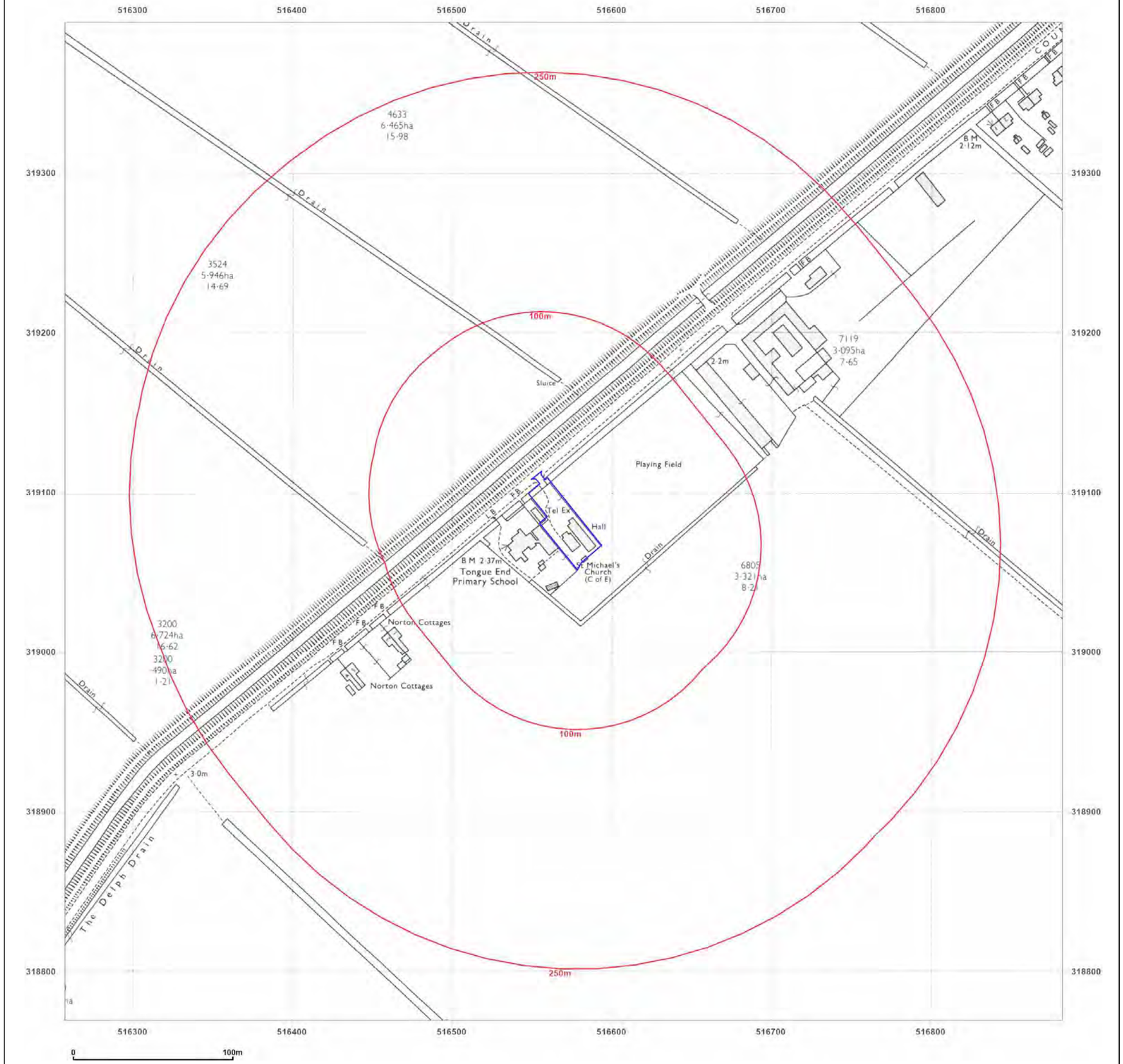


Groundsure INSIGHTS

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Lincolnshire, PE11 3JN

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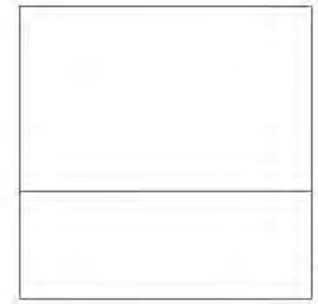


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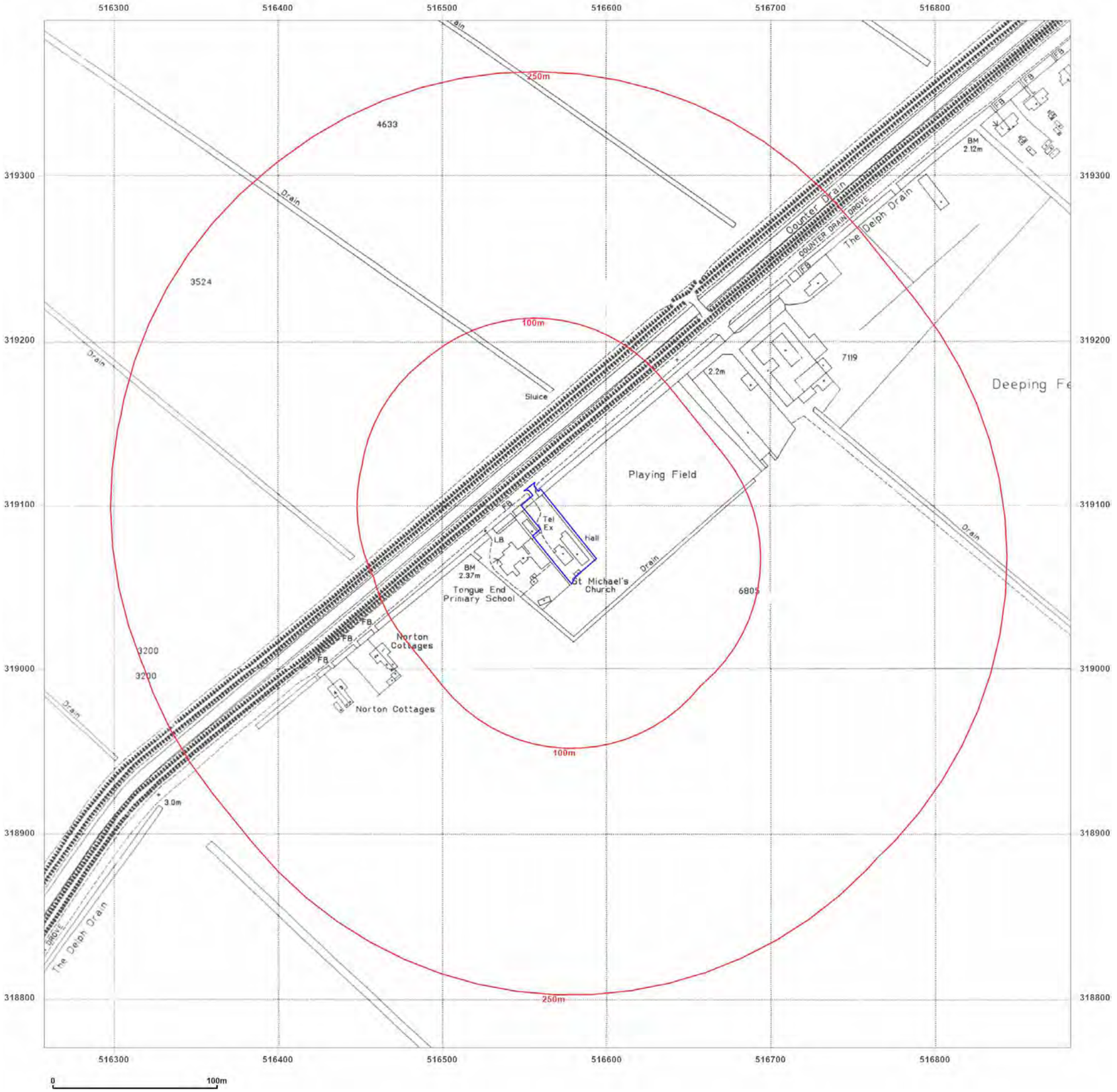


Groundsure INSIGHTS

**Site Details:**

The Old Mission, Spalding,
Lincolnshire, PE11 3JN

**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
**Grid Ref:** 516570, 319082

**Map Name:** National Grid

**Map date:** **1994**

**Scale:** 1:2,500

**Printed at:** 1:2,500

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**Site Details:**

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**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
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**Printed at:** 1:1,250

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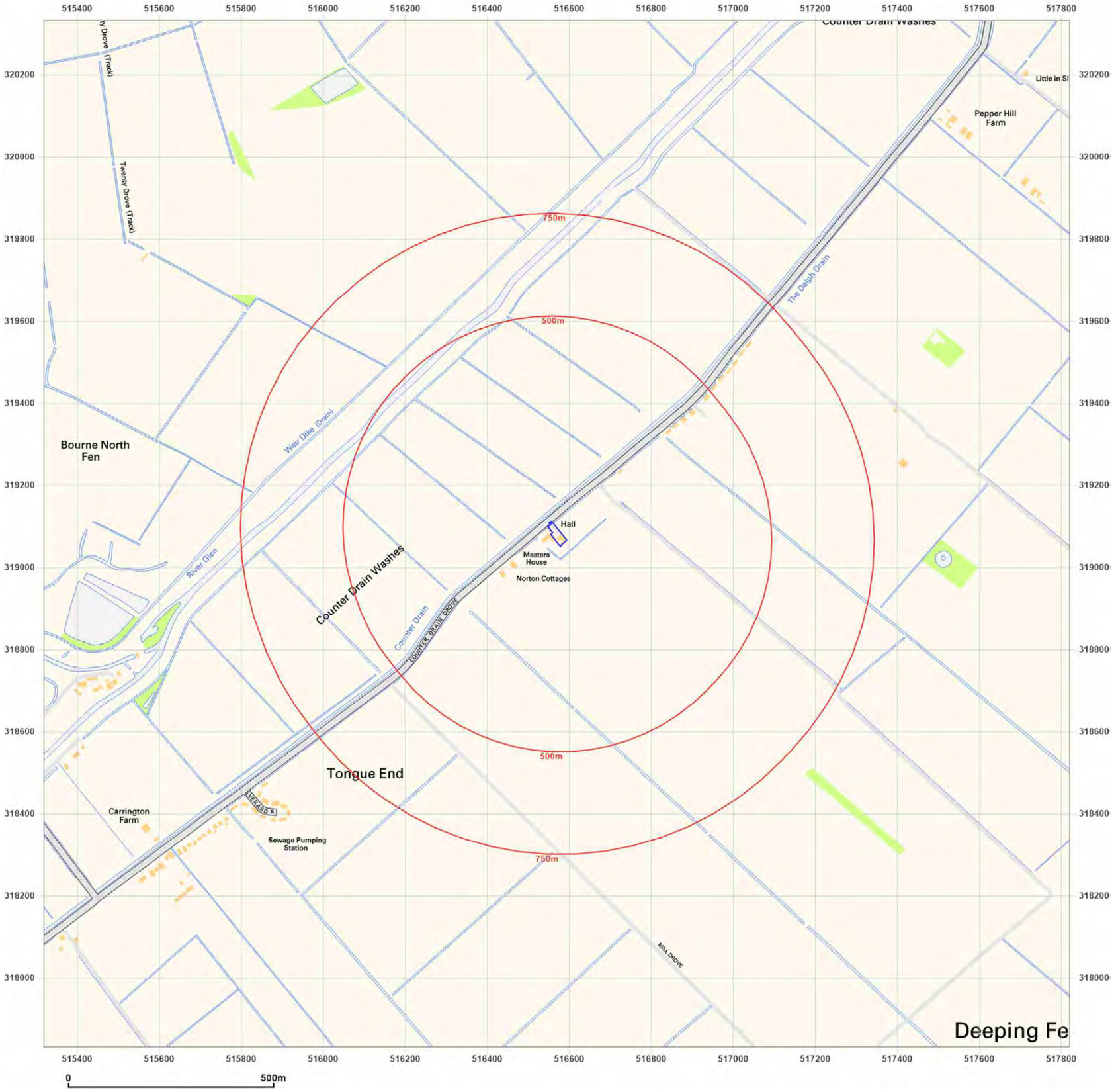


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**Site Details:**

The Old Mission, Spalding,
Lincolnshire, PE11 3JN

**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
**Grid Ref:** 516570, 319082

**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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Lincolnshire, PE11 3JN

**Client Ref:** The Old Mission PE11 3JN 43893399
**Report Ref:** GS-AC8-D41-NS6-W8S
**Grid Ref:** 516570, 319082

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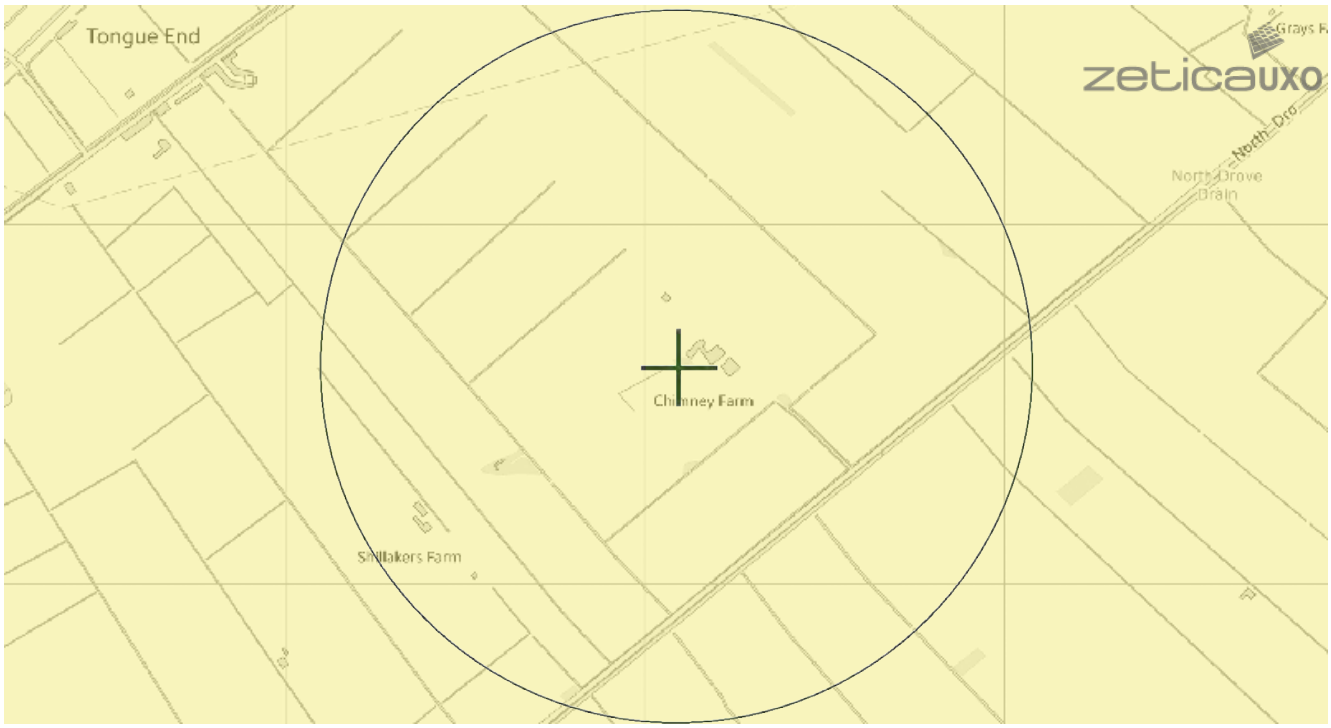
# Appendix 5: Zetica UXO Mapping

# UNEXPLODED BOMB RISK MAP

**SITE LOCATION**

Location: PE11 3JN,
Map Centre: 517058,317612




This map principally indicates a hazard from Unexploded Bombs (UXB) due to WWII bombardment. Other sources of Unexploded Ordnance (UXO) may be present. It should be noted that this map does not represent UXO risk and should not be reported as such when reproduced.

**LEGEND**

- **High:** Areas indicated as having a bombing density of 50 bombs per 1000acre or higher.
- **Moderate:** Areas indicated as having a bombing density of 15 to 49 bombs per 1000acre.
- **Low:** Areas indicated as having 15 bombs per 1000acre or less.

**Miltary** | **Industry** | **UXO find** | **Other**
**Transport** | **Docks** | **Luftwaffe targets**
**Utilities** | **Bombing decoy** | **Airfields**

## How to use your Unexploded Bomb (UXB) risk map?

This map indicates the potential for UXBs to be present because of World War Two (WWII) bombing. It can be incorporated into a technical report, such as a Phase 1 Desk Study, or similar document as an indication of the potential for UXO encounter on a Site. Other sources of UXO may also be indicated, although note that these are not comprehensive and more detailed research is required to confirm their presence.

## What if my Site is in a moderate or high density area?

We typically recommend that a detailed UXO desk study and risk assessment is undertaken for sites in an area with a moderate or high bombing density.
Additionally, if your site is in close proximity to a strategic target, military establishment, airfield or bombing decoy, then additional detailed research is recommended.

## If my site is in a low risk area, do I need to do anything?

If both the map and other research confirm that there is a low potential for UXO to be present on your site, then, subject to your own comfort and risk tolerance, works can proceed with no special precautions.

If you are unsure whether other sources of UXO may be present, you can request one of our pre-desk study assessments (PDSA) by emailing a site boundary and location to pdsa@zetica.com.

**You should never plan site work or undertake a risk assessment using these maps alone. More detail is required, to include an assessment of the likelihood of a source of UXO hazard from other military activity not reflected on these maps.**

## If I have any questions, who do I contact?

**tel:** +44 (0) 1993 886682 **email:** uxo@zetica.com **web:** www.zeticauxo.com

**The information in this UXB risk map is derived from a range of sources and should be used with the accompanying notes on our website.**

**Zetica cannot guarantee the accuracy or completeness of the information or data used and cannot accept any liability for any use of the maps. These maps can be used as part of a technical report or similar publication, subject to acknowledgement. The copyright remains with Zetica Ltd.**

# Appendix 6: Development Plans

N.B DRAWINGS TO BE READ WITH ALL CONSULTANTS REPORTS
FRA, ECOLOGY AND TREE REPORTS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METRES

N.B TOPOGRAPHICAL SURVEY BY OTHERS

BOUNDARY TREATMENTS
ELEVATION ( N.T.S )




PLAN

Increase Foraging and Commuting Opportunities for Hedgehogs
Provide 13cm square hole at ground level or raised off the ground in new fences to allow access to all gardens.

| | | |
|---|---|---|
| C | Existing workshop reduced | 17-10-24 |
| B | Additional Information | 11-10-24 |
| A | Additional Information | 9-9-24 |
| | | |

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Contractors must check all dimensions on Site. Only figured dimensions are to be worked from. Any foundation depths indicated are indicative only and must be in accordance with the consulting engineers design and/or agreed on site with the local authority during excavations. Any discrepancies in the information contained herein must be reported to the Architect before work proceeds.

Drawings to be read with Engineers calculations / report where applicable.

Note: If drawing details existing structures, we have not inspected woodwork or other parts of the structure which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

# Proposed Dwelling, The Old Mission, Counter Drain Drove, Tongue End.

## PROPOSED SITE PLAN -ROOFSCAPE

| | |
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| 1:200 @ A2 | Aug.'24 |
| 21-2584-01 | C |

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ENHANCED BIODIVERSITY

Nesting Opportunities for a range of declining bird species

Sp — House Sparrow Terrace nest boxes
Installed below eaves , min height of 2-3 metres above ground on a northern or eastern elevation.
Installed on North Eastern side of existing Workshop.

Increase Foraging and Commuting Opportunities for Hedgehogs

Hg — Provide 13cm square hole at ground level or raised off the ground in new fences to allow access to all gardens.
See note on fence detail.

Provide Roost Sites for Bats

BAT — Provide 3 no bat boxes on southern and eastern elevations to trees ( prior to commencement ) and 2 no fixed to workshop.
Located at least 3 metres above ground and should not be placed above windows or doors.
Boxes must not be subject to external lights.

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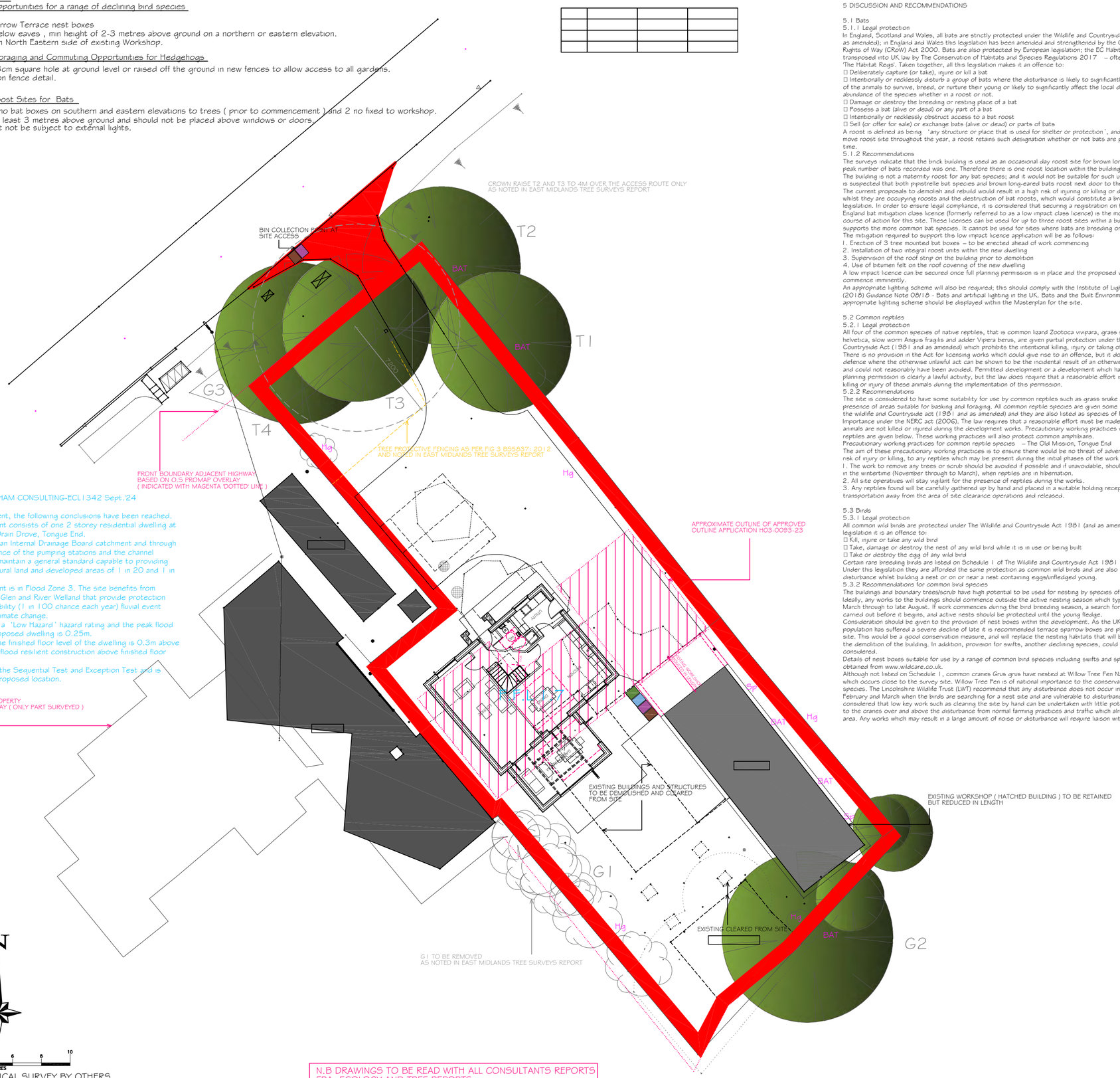


READ WITH FRA BY ELLINGHAM CONSULTING-ECL1342 Sept.'24

CONCLUSIONS

As a result of the assessment, the following conclusions have been reached.

- The proposed development consists of one 2 storey residential dwelling at The Old Mission, Counter Drain Drove, Tongue End.
- The site is located within an Internal Drainage Board catchment and through the operation and maintenance of the pumping stations and the channel system the Board seek to maintain a general standard capable to providing flood protection to agricultural land and developed areas of 1 in 20 and 1 in 100 years, respectively.
- The proposed development is in Flood Zone 3. The site benefits from defences on the tidal River Glen and River Welland that provide protection during the 1% annual probability (1 in 100 chance each year) fluvial event including an allowance for climate change.
- The site is in an area with a 'Low Hazard' hazard rating and the peak flood depth in the area of the proposed dwelling is 0.25m.
- It is recommended that the finished floor level of the dwelling is 0.3m above ground levels with 0.3m of flood resilient construction above finished floor level. PROPOSED F.F.L 1.7
- The development passes the Sequential Test and Exception Test and is therefore suitable for the proposed location.

N.B TOPOGRAPHICAL SURVEY BY OTHERS

N.B DRAWINGS TO BE READ WITH ALL CONSULTANTS REPORTS FRA, ECOLOGY AND TREE REPORTS

## 5 DISCUSSION AND RECOMMENDATIONS

### 5.1 Bats

5.1.1 Legal protection

In England, Scotland and Wales, all bats are strictly protected under the Wildlife and Countryside Act 1981 (and as amended); in England and Wales this legislation has been amended and strengthened by the Countryside and Rights of Way (CRoW) Act 2000. Bats are also protected by European legislation; the EC Habitats Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 – often referred to as 'The Habitat Regs'. Taken together, all this legislation makes it an offence to:

- Deliberately capture (or take), injure or kill a bat
- Intentionally or recklessly disturb a group of bats where the disturbance is likely to significantly affect the ability of the animals to survive, breed, or nurture their young or likely to significantly affect the local distribution or abundance of the species whether in a roost or not.
- Damage or destroy the breeding or resting place of a bat
- Possess a bat (alive or dead) or any part of a bat
- Intentionally or recklessly obstruct access to a bat roost
- Sell (or offer for sale) or exchange bats (alive or dead) or parts of bats

A roost is defined as being 'any structure or place that is used for shelter or protection', and since bats regularly move roost site throughout the year, a roost retains such designation whether or not bats are present at the time.

5.1.2 Recommendations

The surveys indicate that the brick building is used as an occasional day roost site for brown long eared bats. The peak number of bats recorded was one. Therefore there is one roost location within the building.

The building is not a maternity roost for any bat species; and it would not be suitable for such use in the future. It is suspected that both pipistrelle bat species and brown long-eared bats roost next door to the survey site.

The current proposals to demolish and rebuild would result in a high risk of injuring or killing or disturbing bats whilst they are occupying roosts and the destruction of bat roosts, which would constitute a breach of the legislation. In order to ensure legal compliance, it is considered that securing a registration on the Natural England bat mitigation class licence (formerly referred to as a low impact class licence) is the most appropriate course of action for this site. These licenses can be used for up to three roost sites within a building which supports the more common bat species. It cannot be used for sites where bats are breeding or hibernating.

The mitigation required to support this low impact licence application will be as follows:

1. Erection of 3 tree mounted bat boxes – to be erected ahead of work commencing
2. Installation of two integral roost units within the new dwelling
3. Supervision of the roof strip on the building prior to demolition
4. Use of bitumen felt on the roof covering of the new dwelling

A low impact licence can be secured once full planning permission is in place and the proposed work is due to commence imminently.

An appropriate lighting scheme will also be required; this should comply with the Institute of Lighting Professionals (2018) Guidance Note 08/18 - Bats and artificial lighting in the UK. Bats and the Built Environment series. An appropriate lighting scheme should be displayed within the Masterplan for the site.

### 5.2 Common reptiles

5.2.1 Legal protection

All four of the common species of native reptiles, that is common lizard Zootoca vivipara, grass snake Natrix helvetica, slow worm Anguis fragilis and adder Vipera berus, are given partial protection under the Wildlife and Countryside Act (1981 and as amended) which prohibits the intentional killing, injury or taking of these species. There is no provision in the Act for licensing works which could give rise to an offence, but it does provide a defence where the otherwise unlawful act can be shown to be the incidental result of an otherwise lawful activity and could not reasonably have been avoided. Permitted development or a development which has received planning permission is clearly a lawful activity, but the law does require that a reasonable effort is made to avoid killing or injury of these animals during the implementation of this permission.

5.2.2 Recommendations

The site is considered to have some suitability for use by common reptiles such as grass snake due to the presence of areas suitable for basking and foraging. All common reptile species are given some protection under the wildlife and Countryside act (1981 and as amended) and they are also listed as species of Principal Importance under the NERC act (2006). The law requires that a reasonable effort must be made to ensure that animals are not killed or injured during the development works. Precautionary working practices with respect to reptiles are given below. These working practices will also protect common amphibians.

Precautionary working practices for common reptile species – The Old Mission, Tongue End

The aim of these precautionary working practices is to ensure there would be no threat of adverse disturbance, or risk of injury or killing, to any reptiles which may be present during the initial phases of the work at the above site.

1. The work to remove any trees or scrub should be avoided if possible and if unavoidable, should not commence in the wintertime (November through to March), when reptiles are in hibernation.
2. All site operatives will stay vigilant for the presence of reptiles during the works.
3. Any reptiles found will be carefully gathered up by hand and placed in a suitable holding receptacle for safe transportation away from the area of site clearance operations and released.

### 5.3 Birds

5.3.1 Legal protection

All common wild birds are protected under The Wildlife and Countryside Act 1981 (and as amended). Under this legislation it is an offence to:

- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while it is in use or being built
- Take or destroy the egg of any wild bird

Certain rare breeding birds are listed on Schedule 1 of The Wildlife and Countryside Act 1981 (and as amended). Under this legislation they are afforded the same protection as common wild birds and are also protected against disturbance whilst building a nest or on or near a nest containing eggs/unfledged young.

5.3.2 Recommendations for common bird species

The buildings and boundary trees/scrub have high potential to be used for nesting by species of common bird. Ideally, any works to the buildings should commence outside the active nesting season which typically runs from March through to late August. If work commences during the bird breeding season, a search for nests should be carried out before it begins, and active nests should be protected until the young fledge.

Consideration should be given to the provision of nest boxes within the development. As the UK sparrow population has suffered a severe decline of late it is recommended terrace sparrow boxes are placed around the site. This would be a good conservation measure, and will replace the nesting habitats that will be lost through the demolition of the building. In addition, provision for swifts, another declining species, could also be considered.

Details of nest boxes suitable for use by a range of common bird species including swifts and sparrows can be obtained from www.wildcare.co.uk.

Although not listed on Schedule 1, common cranes Grus grus have nested at Willow Tree Fen Nature Reserve which occurs close to the survey site. Willow Tree Fen is of national importance to the conservation status of this species. The Lincolnshire Wildlife Trust (LWT) recommend that any disturbance does not occur in the months of February and March when the birds are searching for a nest site and are vulnerable to disturbance. It is considered that low key work such as clearing the site by hand can be undertaken with little potential disturbance to the cranes over and above the disturbance from normal farming practices and traffic which already occur in the area. Any works which may result in a large amount of noise or disturbance will require liaison with the LWT.

### 5.4 Recommendations for ecological enhancement

In addition to the legislation which is in place to safeguard protected species, there is also legislation and policy which imposes duties to take account of statutorily protected species and also to undertake action to prevent loss of biodiversity and species/habitats which have been identified as priorities in the UK. In England and Wales, the Natural Environment and Rural Communities (NERC) Act 2006, imposes a duty on all public bodies (including Local Authorities and statutory bodies) to conserve biodiversity – including restoring and enhancing a population or habitat. In addition, government planning policy guidance throughout the UK, provided in the National Planning Policy Framework and OPDM Circular 06/2005, requires local planning authorities to take account of protected species issues prior to determination of planning applications.

In order to enhance biodiversity and provide some 'ecological gain' on site and fulfil the Local Planning Authorities obligations under the NERC Act 2006, the following measures are recommended;

- In order to provide suitable habitats on site to encourage high invertebrate activity, including declining pollinators, some grassed areas on the site should be seeded with appropriate wildflower mixes. Seeding of any amenity areas should use a flowering lawn mixture, such as Emorsgate Seeds EL1 mix (www.wildseed.co.uk), which is resistant to regular mowing. Any areas of longer grass could be seeded with a general wildflower mix such as Emorsgate EM1 mix (basic all-purpose meadow mix). It is recommended that any wildflower areas are cut once a year, in late summer/early autumn and the arisings removed after 7 days to enable the wildflowers to flourish. Details of how to adequately prepare the ground prior to seeding as well as ongoing management can also be found on the Emorsgate website.
- Any tree planting on the site should comprise native species, such as field maple Acer campestre, rowan Sorbus aucuparia, hazel Corylus avellana, hawthorn Crataegus monogyna, crab apple Malus sylvestris, holly Ilex aquifolium and wild cherry Prunus avium, which provide foraging opportunities for various bird species.
- Plant flower borders within any landscaped areas of the site to include night scented flowers in order to attract moths and other night flying insects (which will provide foraging opportunities for bats). Species should include evening primrose Oenothera biennis, sweet rocket Hesperis matronalis, honeysuckle species Lonicera sp, lavender Lavendula sp, white jasmine Jasminum officinale, night-scented catchfly Silene noctiflora, night-scented stock Matthiola longipetala and soapwort Saponaria officinalis.

## 6 SUMMARY

The buildings and land associated with The Old Mission, Tongue End in Lincolnshire were surveyed in connection with proposed demolition and rebuild.

The brick building supports a day roost for brown long-eared bat; registration on the bat mitigation class licence is required ahead of work commencing.

The buildings and environs could be used by nesting birds – appropriate timings or pre-works checks are required.

Precautionary measures and ecological enhancements are required in order to ensure legal compliance and no net loss to biodiversity. These are as follows:

- Precautionary measures for badgers
- Precautionary measures for common reptiles (and amphibians)
- Precautionary measures with respect to common cranes
- Provision of bird boxes
- Appropriate landscaping and planting

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| C | Existing workshop reduced | 17-10-24 |
| B | Additional Information | 11-10-24 |
| A | Additional Information | 9-9-24 |
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Drawings to be read with Engineers calculations / report where applicable.

Note: If drawing details existing structures, we have not inspected woodwork or other parts of the structure which are covered, unexposed or inaccessible and we are therefore unable to report that any such part of the property is free from defect.

# Proposed Dwelling, The Old Mission, Counter Drain Drove, Tongue End.

## PROPOSED SITE PLAN

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|---|---|
| 1:200 @ A2 | Aug.'24 |
| 21-2584-02 | C |

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# Appendix 7: Document Production Record

| Document number | Author | Position | Quality Control | Position | Issue number | Date |
|---|---|---|---|---|---|---|
| Arbtech LQ-PRAPE113JJR1V0 43893399 | Daisy Lee-Browne BSc Hons MSc (Research) | Graduate Consultant | C.A.Radiven Bsc Hons MiEnvSci, MIMMM | Geo-Environmental Manager | 01 | 22/10/25 |

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