A PHASE I CONTAMINATION ASSESSMENT FOR A SITE AT:

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE

CLIENT: Damian Delahunty

REFERENCE: ZRH/TJS/21.288/PhaseI

DATE: 23 September 2021

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1. INTRODUCTON

A F Howland Associates Limited was instructed by Damian Delahunty (the "Client") to carry out a Phase I Desk Study and Contamination Assessment for a site at The Old Rectory, Creake Road, Sculthorpe (Drawing 21.288/PhaseI/01). It is understood that the existing hay barn and attached stables are to be demolished and replaced with a new building to comprise an art gallery with artist's accommodation.

This report presents the background environmental and historical data and gives details of a walkover survey undertaken to confirm the current condition of the site and surrounding area. The information is used to develop a conceptual model using the source-pathway-receptor principle and provides a qualitative assessment of land contamination.

The report has been carried out in general accordance with accepted best practice and methodologies (BSI, 2017; EA, 2020; DCLG, 2013) and was prepared for the sole and exclusive use of the Client and its advisors. Other parties using the contained information do so at their own risk and any duty of care to those parties is specifically excluded subject to copyright as detailed below.

2. SITE DESCRIPTION AND LOCATION

The site is situated approximately 2.70 km northwest of the town of Fakenham, centred at National Grid reference 590156, 331767 and at an approximate elevation of 42 m above Ordnance Datum (aOD).

3. GEOLOGY

The regional bedrock geology, mapped for the area by the British Geological Survey (BGS, 2021), is shown to be the Lewes Nodular, Seaford, Newhaven and Culver Chalk Formations (undifferentiated), overlain by superficial deposits of the Sheringham Cliffs Formation.

A historical borehole[1] carried out on-site, recorded the superficial deposits to be clay to 30 m depth, overlying sand and stone (gravel) to a depth of approximately 52 m below ground level (bgl). The Chalk was encountered below this, and was proven to extend to the base of the borehole at a depth of 67 m bgl.

4. HYDROLOGY AND HYDROGEOLOGY

The Sheringham Cliffs Formation is designated secondary (undifferentiated) aquifer status. The bedrock Chalk is designated principle aquifer status.

The nearest licenced groundwater abstraction is located 395 m north east of the site. However, the status of this is given as historical. The nearest active licenced groundwater abstraction is located approximately 1.1 km south west of the site, and is used for spray irrigation. The site lies immediately outside of a total catchment (zone 3) groundwater source protection zone, designated for potable groundwater abstraction boreholes located 3 km to the south east and 5 km north east of the site, in Fakenham and Houghton St. Giles respectively.

Regional hydrogeological mapping for the area (IGS, 1976) indicates that the elevation of the piezometric surface in the Chalk is likely to be at approximately 35 m OD, approximately 7 m below ground level. However, in practice, groundwater is only likely to be struck below the cohesive superficial deposits, which the nearby BGS archive borehole recorded to a depth of 30 m bgl. The shallow elevation of the piezometric surface recorded

[1]Historic borehole reference TF93SW13 [records available at http://scans.bgs.ac.uk/sobi_scans/boreholes/512501/images/12107067.html - accessed 17/09/2021]

on hydrogeological mapping indicates that the chalk aquifer is likely to be confined and the groundwater is under pressure.

The nearest significant water course is the River Wensum, which is located approximately 1.5 km south west of the site. The site is within the immediate catchment of the River Wensum and within a drinking water safeguard zone and a drinking water protected area. In addition, three ponds were noted within the grounds of The Old Rectory; approximately 70 m south west, 80 m north east and 160 m south east, respectively. No active licenced surface water abstractions are mapped within 2.0 km of the site.

5. HAZARDOUS GASES

The BR211 report (BRE, 2015) indicates that the site is not within an area where specific protection from radon gas is required.

Another source of potentially hazardous gases can be from historic and/or active landfill sites, other waste treatment facilities and uncontrolled backfill of voids such as gravel pits. The environmental database report indicates that there are no records of any historic or active landfill sites, or waste treatment facilities within 500 m of the site. In addition, no records of pits or infilled land were noted on site or within the immediate vicinity.

6. HISTORICAL INFORMATION

6.1 Historical Maps

A review of historical maps has been undertaken and a summary is provided below. The historical maps are appended to this report.

The earliest available mapping edition, dated 1885, shows the site to be part of a meadow situated to the north of an access track and series of buildings, likely to be a stable block, and a yard. The alignment of the access track is comparable to the present day. The main house (the 'Rectory'), was located to the south west of the site, surrounded by trees and terraced gardens. Several ponds were located within a 250 m radius of the site. Three of these were located in the grounds or parkland associated with the Rectory.

Between the subsequent 1886 mapping edition and the 1959 edition, no significant changes were noted on site. In the surrounding area, the small scale development of properties had taken place along Creake Road to the west of the site. By the 1971 mapping edition the hay barn and adjoined stables were present on site in a location and

configuration commensurate with the present day. No further changes were noted on subsequent editions.

6.2 Aerial Photographs

The earliest available aerial image, from 1946 shows the site to be undeveloped and forms part of the meadow and parkland associated with the Rectory.

An aerial image from 1988 shows the barn and stables to be present on site. The meadow and parkland is segregated into multiple paddocks with field boundaries comprising fences and hedges. No significant changes were noted through the aerial photography to September 2006. On an image from 2009, some of the field boundaries and all of the hedges had been removed, and it appeared that the land was used for grazing sheep.

By the 2015 aerial image, the vast majority of the field boundaries had been removed and the parkland appeared to be grassland. The 2018 aerial image showed this to be managed, with a series of footpaths cut through the sward. No further changes were noted through following mapping editions up to the present day.

7. WALKOVER SURVEY

A walkover survey was carried out on 10 September 2021 to enable identification of the current land use and other details not otherwise available from the archival information. The salient features are shown on drawing 21.288/PhaseI/02 in Appendix D.

The site was accessed from Creake Road via a gravel driveway. This lead through a five bar field gate to a gravel surfaced parking area, which was shared with the adjacent stable block which had been converted into an annexe to the main house. The site was occupied by a single hay barn with adjoining stables, and a parcel of rough grassland. The surrounding area to the west and south was occupied by the grounds of The Old Rectory, whereas the north and east of the site was given over to semi-maintained grassland/parkland.

The hay barn was of timber framed construction, was clad with timber or corrugated cement board sheeting (suspected to be asbestos containing), and had a corrugated cement board roof with bonded cement rainwater goods. The adjoining stable block appeared to be a 'lean-to', and was clad with timber with a corrugated steel roof. Where inspected, the corrugated cement board material appeared to be in a good condition, with

most boards free from visible damage. In addition, whole, intact segments of bonded cement downpipes were present on the ground along the eastern aspect of the barn.

The west of the site was surfaced with grass and was used to access the meadow to the north of the barn. The site boundary was marked with a fence, bordered with juvenile lime trees. The east of the barn was rough unmaintained grassland. The northern boundary of the site was marked by a series of elderberry trees, with rough grassland and small piles of sand and crushed granite beyond.

The stable block was empty and disused, whilst the hay barn was being used for the storage of building materials and other items during the on-going building work to the main house. This mostly consisted of crates of paving slabs, piles of wood fuel, pedal cycles and two heating oil tanks.

Anecdotal evidence provided by the Client indicates that the heating oil tanks have been replaced during the on-going building works, and have been temporarily stored in the barn. It is understood that the tanks were drained prior to being moved into the barn and thus are currently empty. However, at the time of the walkover survey, one of the tanks appeared to have leaked a small volume of oil, with staining noted on the bare earth floor.

The walkover survey also inspected the three ponds present on-site. All were present and contained water, with no evidence of infilling.

8. DISCUSSION OF ENVIRONMENTAL ISSUES

It is proposed to demolish the existing hay barn and re-develop the site into an art gallery with accommodation. Through this, sensitive receptors will be introduced.

Historical information indicates that the site was formerly part of a meadow in the parkland associated with The Old Rectory. Subsequently, the existing hay barn was constructed in the 1960s. It appears that the barn was used to service the surrounding parkland, which until around 2009, was used for low intensity pastoral agriculture (i.e. the grazing of livestock). Given the small scale of this activity, it is unlikely that fuels, chemicals or machinery were stored in or around the barn to a degree which could result in significant contamination.

Contemporary use of the barn is for the storage of building materials whilst building work to the main house is on-going. Primarily, this included the storage of paving slabs, with two redundant oil tanks stored here – one of which appeared to have leaked a small volume of heating oil onto the bare earth floor of the barn. As the tanks were drained prior to being moved, the volume of fuel product which was lost to ground is likely to be small, such that it would be absorbed by the soil at surface. Furthermore, the whole area is under cover, resulting in very limited potential for the migration of contamination via the infiltration and percolation of surface water. On balance, the small scale and isolated nature of this event is unlikely to present a significant contamination risk, and as the affected area is easily identifiable, this could be easily dealt with during development.

No other potential sources of contamination that could impact upon the proposed development have been identified during background research or walkover survey.

It is recommended that in order to prevent the contamination of near surface soils during development, all asbestos containing materials within the fabric of the barn should be identified prior to demolition. Subsequently, these should be removed by a competent contractor in accordance with industry best practice.

9. PRELIMINARY CONCEPTUAL MODEL

Following a review of the archival information and the walkover survey a preliminary conceptual model was devised to determine the risk to appropriate targets from any potential contaminating activities. This collates the evidence gained and establishes the potential linkages that may exist under the principle of "source-pathway-receptor" and is presented in Table 1 below.

A risk category is determined for the potential linkages and an assessment made of risk and the significance of that risk from professional judgement. Risk assessment classification is included in Appendix E. Where appropriate, further work is recommended to fully quantify any potential risk.

The generic risks posed to construction workers are included as part of this assessment to provide an indication for the potential risks that may impact upon construction and design proposals. It should be noted that an assessment of risk to construction workers suggests that only contamination of acute toxicity might represent an unacceptable risk to the health of construction workers but which should be managed through health and safety procedures.

Source of Contamination	Pathway	Receptor	Probability and Reasoning	Consequence and Reasoning	Risk Classification
Potentially contaminated soils (historical and recent use)	Direct contact, inhalation (dusts, vapours, and fibres), and ingestion	Human end-users	Unlikely – No potential sources of contamination have been identified that may impact upon the proposed human end users.	Medium – Chronic exposure to end-users	Low Risk
		Construction workers		Mild – Short term exposure of contaminated soils to construction workers	Very Low Risk
	Percolation of leachate / mobile contaminants	Groundwater	Unlikely – No potential sources of contamination have been identified that may impact upon surface water or groundwater. The leakage of a small volume of heating oil from a disused tank is unlikely to pose a considerable risk to groundwater and can be easily dealt with during development.	Medium – The site overlies a geological succession with secondary and principal aquifer status.	Low Risk
		Surface Water		Minor – Ponds located in the vicinity of the site. Nearest major surface water course is 1.5 km away.	Very Low Risk
	Permeation through pipework material	Private water supply	Unlikely– No evidence of organic contamination which would result in an impact to water supply pipes, providing the small scale heating oil leak is dealt with during development.	Medium – Chronic exposure to end-users	Low Risk
Potentially infilled land on or off site	Gas and vapour migration, ingress and accumulation on structures	Human end-users / structures	Unlikely – No viable sources of ground gas present on-site or in surrounding area.	Severe – Acute risk to potential end-users	Low Risk[2]
Radon gas		Human end-users	Unlikely – Site outside of radon affected area.	Medium - Chronic risk to human end users.	Low Risk

Table 1 – Preliminary Conceptual Site Model and Risk Assessment

[2] Whilst the comparison of consequence against probability results in a moderate/low risk classification, the risk has been downgraded to low based on the negligible risk posed

10. CONCLUSIONS AND RECOMMENDATIONS

1. A Phase I Desk Study and Contamination Assessment was carried out for the proposed re-development of a site at: The Old Rectory, Creake Road, Sculthorpe.
2. Geological mapping indicates the site to be underlain by a bedrock of Chalk, designated a principal aquifer status, overlain by superficial deposits of the Sheringham Cliffs Formation, designated secondary (undifferentiated) aquifer status.. The site is not situated within a groundwater source protection zone.
3. The site is located within the catchment of the River Wensum, and is located within a drinking water protected area and a drinking water safeguard zone, both with respect to surface water.
4. The earliest mapping edition reviewed indicated that the site was part of a meadow situated within the parkland associated with The Old Rectory. The site was undeveloped until the 1960s, when the existing hay barn was constructed. No further changes have been noted since this time.
5. The walkover survey identified that the hay barn was in the most part constructed with a timber frame and corrugated cement board sheeting – suspected to be an asbestos containing material. The barn was currently being used for the storage of building materials, wood fuel and two plastic heating oil tanks. One of the tanks appeared to have leaked a small volume of heating oil, which had created a stained patch on the bare earth floor. This should be dealt with appropriately during development.
6. On balance of all of the evidence collected during the desk study, a low risk to the end users of the proposed residential development has been identified from potential contaminants within the shallow soils, via direct contact, inhalation, and ingestion.
7. It is recommended that all asbestos containing materials which form part of the fabric of the barn are removed by a suitably licenced contractor in accordance with industry best practice. This will reduce the risk of soil contamination during demolition and site clearance.
8. A very low risk has been identified to any construction workers who may have direct contact with, inhalation of, or ingestion of the potentially contaminated soils.
9. A low to very low risk to groundwater and surface waters from potential mobile or leachable contaminants has been identified.
10. A low risk to end users has been identified through the permeation of potential contaminants within the surrounding soils into private water supply pipework.
11. No viable sources of ground gas that could impact upon the proposed development have been identified, either on or off-site. Therefore, a low risk to human end users via gas migration through permeable strata, ingress and accumulation in structures has been identified.

12. The site is not within an area where specific protection from radon gas is required.

13. The site is considered to be suitable for the proposed residential end use, and no further assessment with regards to potential contamination is considered necessary based on the findings of this report.

Prepared by:	Reviewed by:	Approved by:
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A F HOWLAND ASSOCIATES
23 September 2021

APPENDIX A: REFERENCES

BRITISH GEOLOGICAL SURVEY (BGS). 2021. British Geological Survey OpenGeoscience Website. Geology of Britain Viewer. www.bgs.ac.uk/opengeoscience

BRITISH STANDARDS INSTITUTION (BSI). 2017. BS 10175:2011+A2:2017. Code of practice for investigation of potentially contaminated Sites. British Standards Institution. London.

BUILDING RESEARCH ESTABLISHMENT (BRE). 2015. BRE 211. Radon: Guidance on protective measures for new buildings. British Research Establishment. Bracknell.

DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG). 2013. The Building Regulations - England - Approved Document C: Site preparation and resistance to contaminants and moisture, 2004 and incorporating 2010 and 2013 amendments.

ENVIRONMENT AGENCY (EA). 2020. Land Contamination Risk Management (LCRM). Accessed at: https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm. Environment Agency, Bristol.

INSTITUTE OF GEOLOGICAL SCIENCES. 1976. Hydrogeological Map of Northern East Anglia (including parts of hydrometric areas 33 and 34). 1:125 000 Scale. IGS , London.

APPENDIX B: ENVIRONMENTAL DATABASE REPORT

Enviro+Geo Insight Report (Groundsure, report reference GS-8177850)

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Order Details

Date: 08/09/2021

Your ref: TJS_21-288

Our Ref: GS-8177850

Client: A F Howland Associates

Site Details

Location: 590157 331766

Area: 0.07 ha

Authority: North Norfolk District Council

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

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	Historical industrial land uses	0	0	7	0	-
15	1.2	Historical tanks	0	0	0	0	-
15	1.3	Historical energy features	0	0	0	0	-
15	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
17	2.1	Historical industrial land uses	0	0	9	0	-
18	2.2	Historical tanks	0	0	0	0	-
18	2.3	Historical energy features	0	0	0	0	-
18	2.4	Historical petrol stations	0	0	0	0	-
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	-
21	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
21	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
21	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	1	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
23	4.1	Recent industrial land uses	0	0	1	-	-
24	4.2	Current or recent petrol stations	0	0	0	0	-
24	4.3	Electricity cables	0	0	0	0	-
24	4.4	Gas pipelines	0	0	0	0	-
24	4.5	Sites determined as Contaminated Land	0	0	0	0	-

24	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
25	4.7	Regulated explosive sites	0	0	0	0	-
25	4.8	Hazardous substance storage/usage	0	0	0	0	-
25	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
25	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
25	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
26	4.12	Radioactive Substance Authorisations	0	0	0	0	-
26	4.13	Licensed Discharges to controlled waters	0	0	1	0	-
26	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
26	4.15	Pollutant release to public sewer	0	0	0	0	-
27	4.16	List 1 Dangerous Substances	0	0	0	0	-
27	4.17	List 2 Dangerous Substances	0	0	0	0	-
27	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
27	4.19	Pollution inventory substances	0	0	0	0	-
27	4.20	Pollution inventory waste transfers	0	0	0	0	-
28	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
29	5.1	Superficial aquifer	Identified (within 500m)				
31	5.2	Bedrock aquifer	Identified (within 500m)				
33	5.3	Groundwater vulnerability	Identified (within 50m)				
34	5.4	Groundwater vulnerability- soluble rock risk	Identified (within 0m)				
34	5.5	Groundwater vulnerability- local information	None (within 0m)				
35	5.6	Groundwater abstractions	0	0	0	1	18
39	5.7	Surface water abstractions	0	0	0	0	0
40	5.8	Potable abstractions	0	0	0	0	0
40	5.9	Source Protection Zones	0	1	0	0	-
40	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
41	6.1	Water Network (OS MasterMap)	0	0	3	-	-

42	6.2	Surface water features	0	0	3	-	-
42	6.3	WFD Surface water body catchments	1	-	-	-	-
43	6.4	WFD Surface water bodies	0	0	0	-	-
43	6.5	WFD Groundwater bodies	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
44	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
44	7.2	Historical Flood Events	0	0	0	-	-
44	7.3	Flood Defences	0	0	0	-	-
44	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
45	7.5	Flood Storage Areas	0	0	0	-	-
46	7.6	Flood Zone 2	None (within 50m)				
46	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
47	8.1	Surface water flooding	Negligible (within 50m)				
Page	Section	Groundwater flooding					
48	9.1	Groundwater flooding	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
49	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	2
50	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
50	10.3	Special Areas of Conservation (SAC)	0	0	0	0	1
51	10.4	Special Protection Areas (SPA)	0	0	0	0	0
51	10.5	National Nature Reserves (NNR)	0	0	0	0	0
51	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
51	10.7	Designated Ancient Woodland	0	0	0	0	0
51	10.8	Biosphere Reserves	0	0	0	0	0
52	10.9	Forest Parks	0	0	0	0	0
52	10.10	Marine Conservation Zones	0	0	0	0	0
52	10.11	Green Belt	0	0	0	0	0
52	10.12	Proposed Ramsar sites	0	0	0	0	0

52	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
53	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
53	10.15	Nitrate Sensitive Areas	0	0	0	0	0
53	10.16	Nitrate Vulnerable Zones	1	0	0	0	0
54	10.17	SSSI Impact Risk Zones	1	-	-	-	-
55	10.18	SSSI Units	0	0	0	0	4
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
58	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	4	-	-
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 3 (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	2	-	-
62	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
63	13.1	Priority Habitat Inventory	0	0	1	-	-
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)	0	0	0	0	-

67	14.4	Landslip (10k)	0	0	0	0	-
68	14.5	Bedrock geology (10k)	0	0	0	0	-
68	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
69	15.1	50k Availability	Identified (within 500m)				
70	15.2	Artificial and made ground (50k)	0	0	0	0	-
70	15.3	Artificial ground permeability (50k)	0	0	-	-	-
71	15.4	Superficial geology (50k)	1	0	0	1	-
72	15.5	Superficial permeability (50k)	Identified (within 50m)				
72	15.6	Landslip (50k)	0	0	0	0	-
72	15.7	Landslip permeability (50k)	None (within 50m)				
73	15.8	Bedrock geology (50k)	1	0	0	0	-
74	15.9	Bedrock permeability (50k)	Identified (within 50m)				
74	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
75	16.1	BGS Boreholes	0	0	2	-	-
Page	Section	Natural ground subsidence					
76	17.1	Shrink swell clays	Very low (within 50m)				
77	17.2	Running sands	Negligible (within 50m)				
78	17.3	Compressible deposits	Negligible (within 50m)				
79	17.4	Collapsible deposits	Very low (within 50m)				
80	17.5	Landslides	Very low (within 50m)				
81	17.6	Ground dissolution of soluble rocks	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
82	18.1	Natural cavities	0	0	0	0	-
83	18.2	BritP its	0	0	1	0	-
83	18.3	Surface ground workings	0	0	16	-	-
84	18.4	Underground workings	0	0	0	0	0
84	18.5	Historical Mineral Planning Areas	0	0	0	0	-

84	18.6	Non-coal mining	1	0	1	0	0
85	18.7	Mining cavities	0	0	0	0	0
85	18.8	JPB mining areas	None (within 0m)				
85	18.9	Coal mining	None (within 0m)				
85	18.10	Brine areas	None (within 0m)				
86	18.11	Gypsum areas	None (within 0m)				
86	18.12	Tin mining	None (within 0m)				
86	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
87	19.1	Radon	Less than 1% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
88	20.1	BGS Estimated Background Soil Chemistry	1	0	-	-	-
88	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
88	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-

Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
89	21.1	Underground railways (London)	0	0	0	-	-
89	21.2	Underground railways (Non-London)	0	0	0	-	-
89	21.3	Railway tunnels	0	0	0	-	-
89	21.4	Historical railway and tunnel features	0	0	0	-	-
89	21.5	Royal Mail tunnels	0	0	0	-	-
90	21.6	Historical railways	0	0	0	-	-
90	21.7	Railways	0	0	0	-	-
90	21.8	Crossrail 1	0	0	0	0	-
90	21.9	Crossrail 2	0	0	0	0	-
90	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 11/04/2020

Site Area: 0.07ha

Recent site history - 2017 aerial photograph

Capture Date: 11/05/2017

Site Area: 0.07ha

Recent site history - 2010 aerial photograph

Capture Date: 28/06/2010

Site Area: 0.07ha

Recent site history - 2009 aerial photograph

Capture Date: 12/06/2009

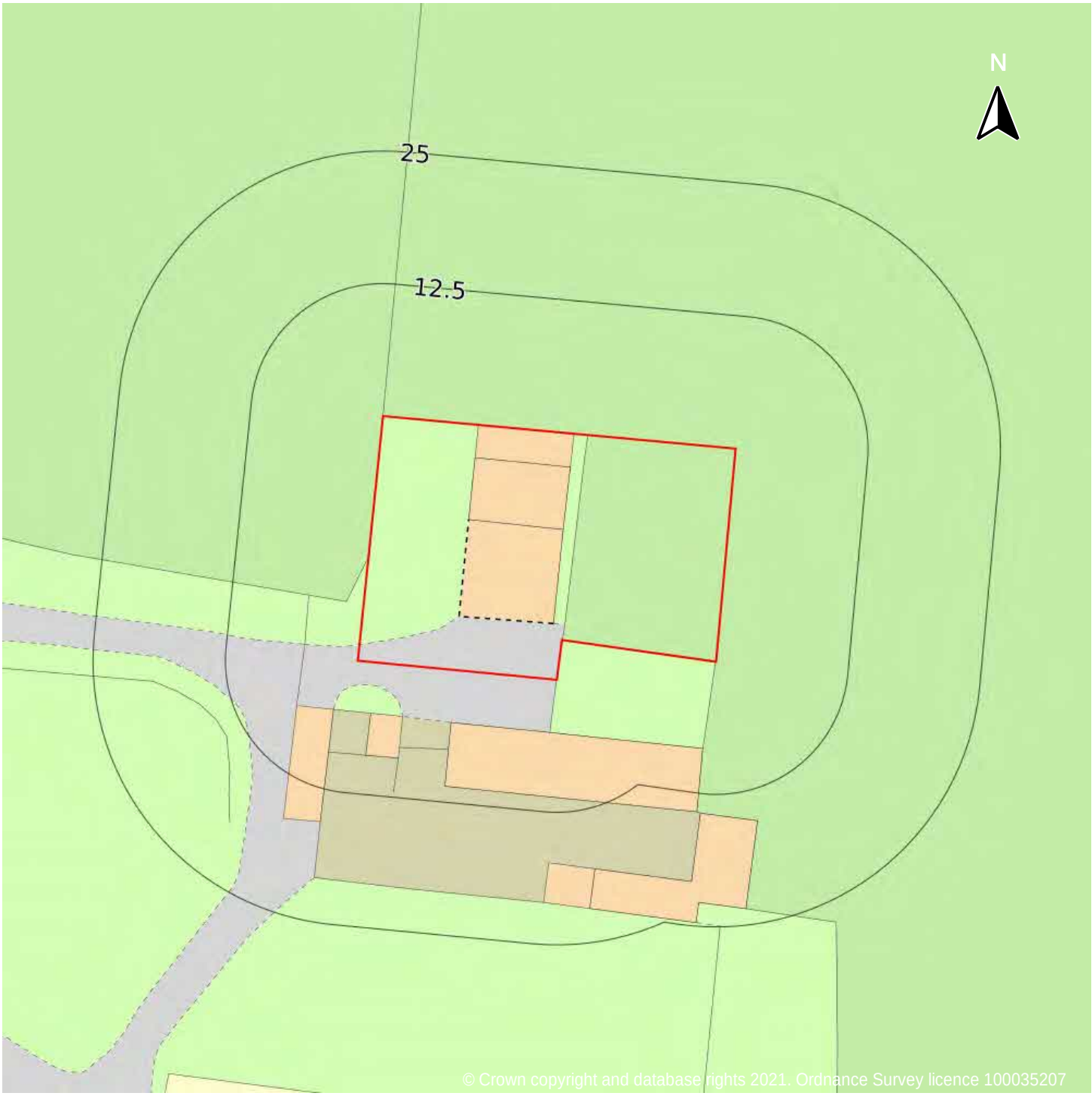
Site Area: 0.07ha

Recent site history - 1999 aerial photograph

Capture Date: 25/06/1999

Site Area: 0.07ha

OS MasterMap site plan



Site Area: 0.07ha

1 Past land use

Site Outline

Search buffers in metres (m)

Historical industrial land uses

1.1 Historical industrial land uses

Records within 500m	7

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

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

ID	Location	Land use	Dates present	Group ID
1	130m NW	Grave Yard	1885	2007299

ID	Location	Land use	Dates present	Group ID
A	207m W	Unspecified Pit	1982	2036452
A	209m W	Unspecified Pit	1906 - 1950	2021087
A	212m W	Unspecified Pit	1885	2023064
A	212m W	Unspecified Pit	1950	2035447
B	237m N	Unspecified Disused Pit	1988	2015987
B	237m N	Unspecified Disused Pit	1973	2035251

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.3 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

Site Outline

Search buffers in metres (m)

Historical industrial land uses

2.1 Historical industrial land uses

Records within 500m	9

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

Features are displayed on the Past land use - un-grouped map on **page 17**

ID	Location	Land Use	Date	Group ID
1	130m NW	Grave Yard	1885	2007299
A	207m W	Unspecified Pit	1982	2036452
A	209m W	Unspecified Pit	1950	2021087

ID	Location	Land Use	Date	Group ID
A	212m W	Unspecified Pit	1950	2035447
A	212m W	Unspecified Pit	1885	2023064
A	214m W	Unspecified Pit	1906	2021087
A	214m W	Unspecified Pit	1906	2021087
B	237m N	Unspecified Disused Pit	1973	2035251
B	237m N	Unspecified Disused Pit	1988	2015987

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

Site Outline

Search buffers in metres (m)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	0

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

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

3.7 Waste exemptions

Records within 500m	1

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

Features are displayed on the Waste and landfill map on **page 20**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	362m N	BARSHAM ROAD, SCULTHORPE, FAKENHAM, NR21 9NA	WEX158004	Using waste exemption	Not on a Farm	Use of waste in construction

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

4 Current industrial land use

Site Outline

Search buffers in metres (m)

Recent industrial land uses

Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m	1

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 23**

ID	Location	Company	Address	Activity	Category
2	244m W	Pumping Station	Norfolk, NR21	Water Pumping Stations	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	0

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

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	1

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 23**

ID	Location	Address	Details	
1	196m W	PREMISES AT SCULTHORPE EBA BOWLS CL, CREAKE RD, SCULTHORPE, NORWICH	Effluent Type: UNSPECIFIED Permit Number: PRELF04072 Permit Version: 1 Receiving Water: -	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 10/12/1990 Effective Date: 10/12/1990 Revocation Date: 15/10/1998

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	0

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

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

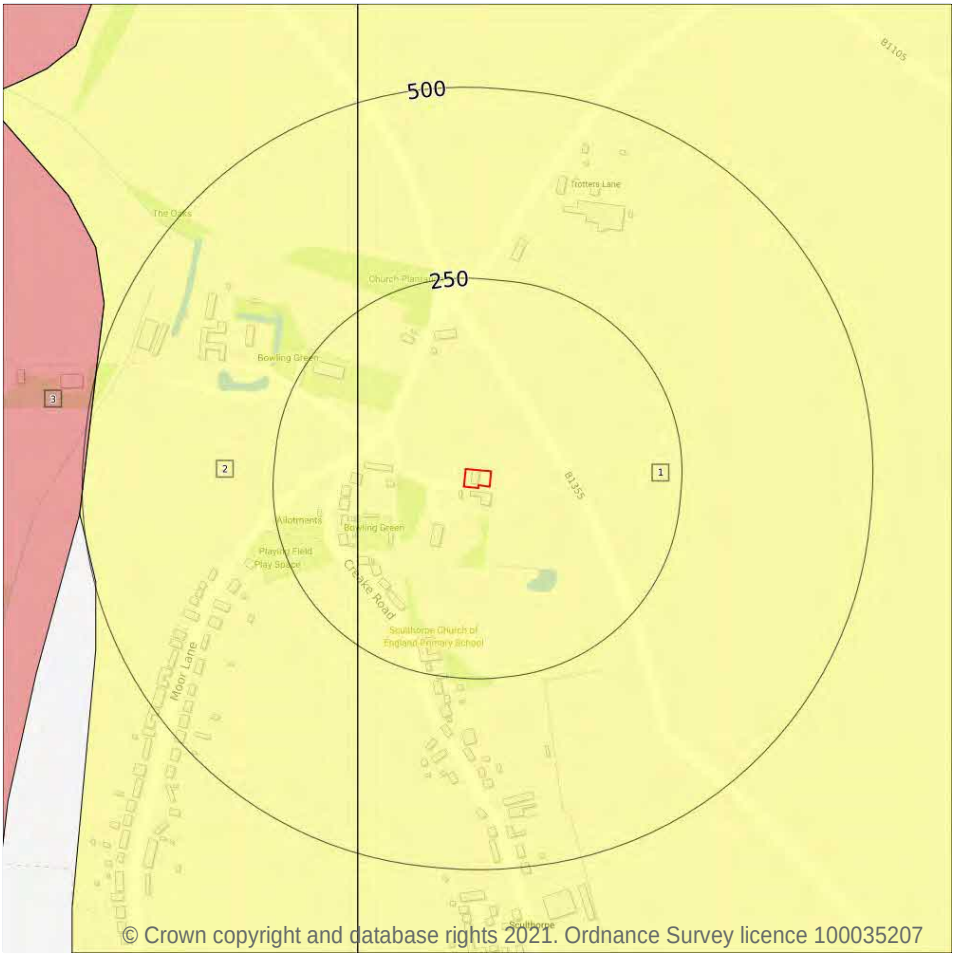
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m **3**

Aquifer status of groundwater held within superficial geology.

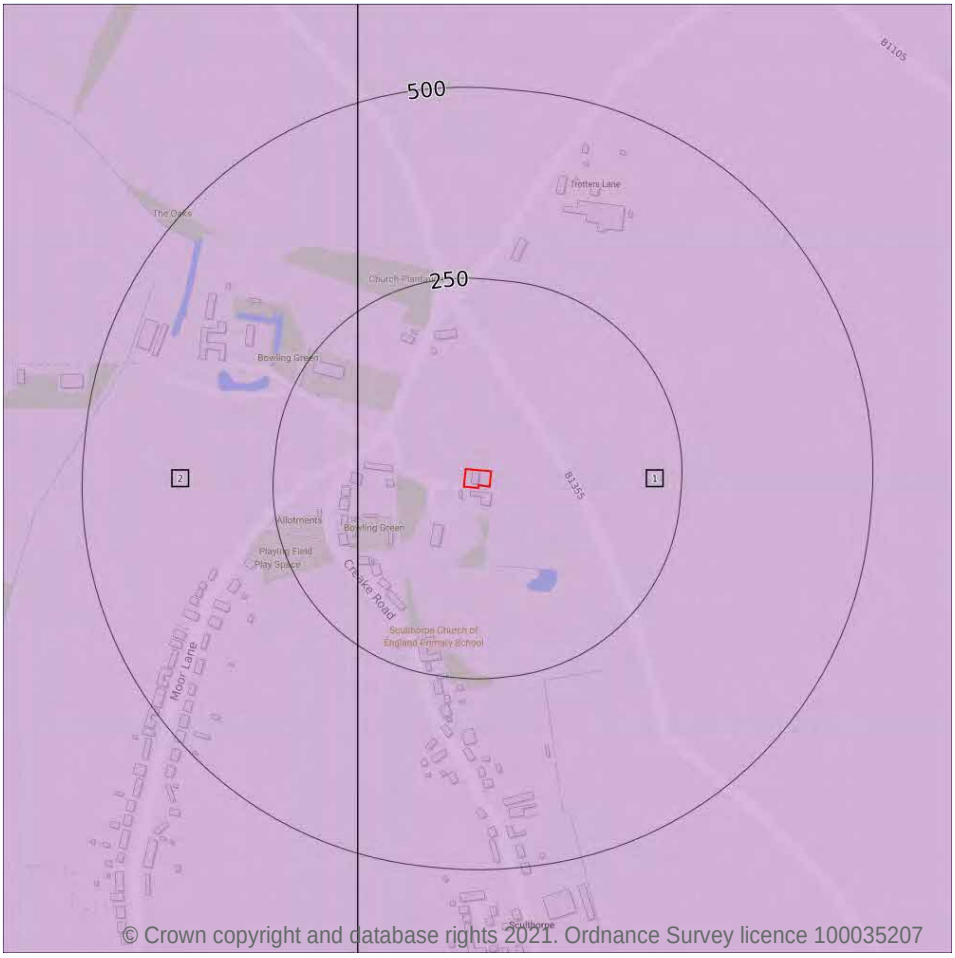
Features are displayed on the Hydrogeology map on **page 29**

ID	Location	Designation	Description
1	**On site**	**Secondary Undifferentiated**	**Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type**
2	139m W	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	495m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

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

5.2 Bedrock aquifer

Records within 500m	2

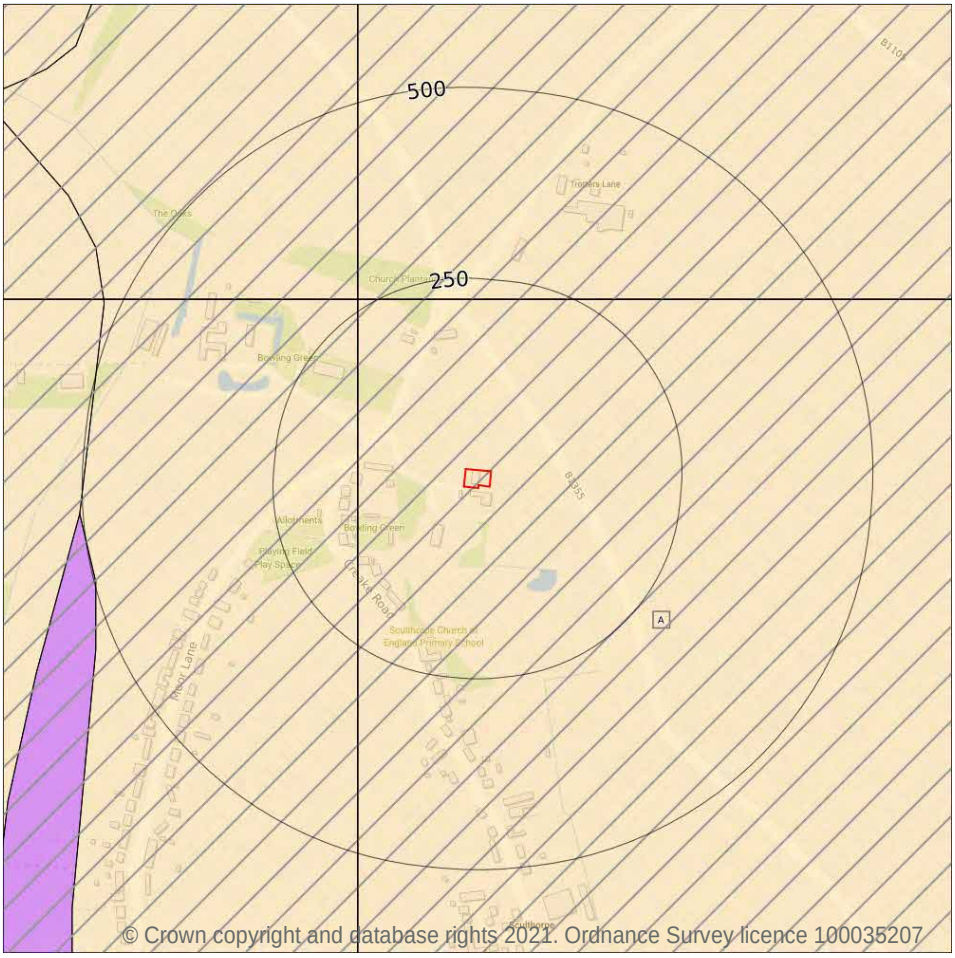
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 31**

ID	Location	Designation	Description
1	**On site**	**Principal**	**Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers**
2	139m W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

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

Groundwater vulnerability



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 vulr
- 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 33**

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

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	1

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	25.0%

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

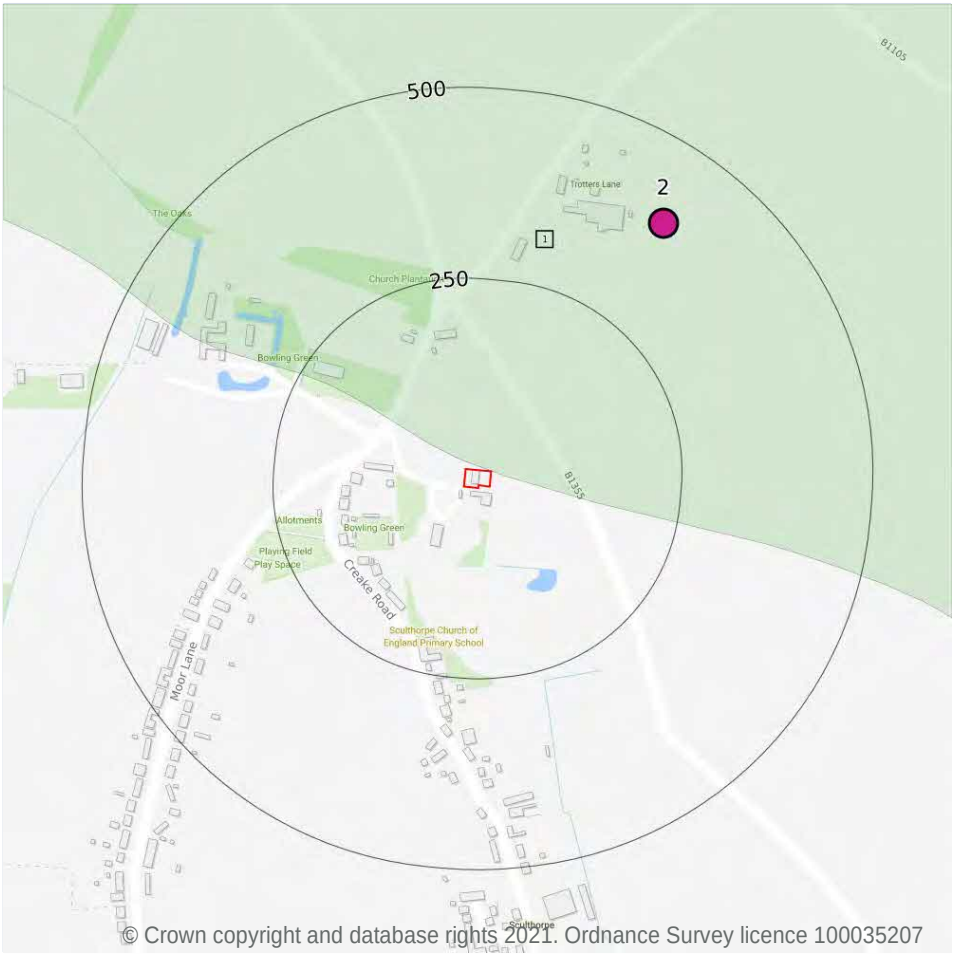
5.5 Groundwater vulnerability- local information

Records on site	0

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

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

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	19

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 35**

ID	Location	Details	
2	395m NE	Status: Historical Licence No: 7/34/11/*G/0565 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT SCULTHORPE Data Type: Point Name: BORLEY Easting: 590400 Northing: 332100	Annual Volume (m^3): 5000 Max Daily Volume (m^3): 20 Original Application No: - Original Start Date: 01/07/1998 Expiry Date: 31/07/2008 Issue No: 101 Version Start Date: 27/08/2004 Version End Date: -
-	1229m SW	Status: Historical Licence No: 7/34/11/*G/0548 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589080 Northing: 331130	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/08/1996 Expiry Date: 30/09/2005 Issue No: 100 Version Start Date: 01/08/1996 Version End Date: -
-	1229m SW	Status: Historical Licence No: 7/34/11/*G/0600 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589080 Northing: 331130	Annual Volume (m^3): 118200 Max Daily Volume (m^3): 2400 Original Application No: - Original Start Date: 17/03/2006 Expiry Date: 31/03/2008 Issue No: 1 Version Start Date: 17/03/2006 Version End Date: -
-	1229m SW	Status: Historical Licence No: 7/34/11/*G/0600A Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT GRANGE FARM, SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589080 Northing: 331130	Annual Volume (m^3): 118200 Max Daily Volume (m^3): 2400 Original Application No: - Original Start Date: 01/04/2008 Expiry Date: 31/03/2010 Issue No: 1 Version Start Date: 01/04/2008 Version End Date: -
-	1229m SW	Status: Historical Licence No: AN/034/0011/036 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT GRANGE FARM, SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589080 Northing: 331130	Annual Volume (m^3): 118200 Max Daily Volume (m^3): 2400 Original Application No: - Original Start Date: 01/04/2010 Expiry Date: 31/03/2011 Issue No: 1 Version Start Date: 01/04/2010 Version End Date: -

ID	Location	Details	
-	1229m SW	Status: Historical Licence No: AN/034/0011/048 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT GRANGE FARM, SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589080 Northing: 331130	Annual Volume (m^3): 88650 Max Daily Volume (m^3): 2400 Original Application No: - Original Start Date: 01/04/2011 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 01/04/2011 Version End Date: -
-	1229m SW	Status: Active Licence No: AN/034/0011/048/R01 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT GRANGE FARM, SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589080 Northing: 331130	Annual Volume (m^3): 81,000 Max Daily Volume (m^3): 2,400 Original Application No: - Original Start Date: 05/04/2018 Expiry Date: 31/03/2024 Issue No: 1 Version Start Date: 05/04/2018 Version End Date: -
-	1272m SW	Status: Historical Licence No: 7/34/11/*G/0298 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE,GRANGE FM,SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589100 Northing: 331020	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1983 Version End Date: -
-	1272m SW	Status: Historical Licence No: 7/34/11/*G/0298 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE,GRANGE FM,SCULTHORPE Data Type: Point Name: NORFOLK FARM PRODUCE LTD Easting: 589100 Northing: 331020	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/11/1983 Version End Date: -
-	1557m E	Status: Historical Licence No: 7/34/03/*G/0025 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: IRRIG.BORE,TRAP LN,FAKENHAM Data Type: Point Name: HOWELL Easting: 591700 Northing: 331450	Annual Volume (m^3): 11800 Max Daily Volume (m^3): 77 Original Application No: - Original Start Date: 01/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 05/06/2000 Version End Date: -

ID	Location	Details	
-	1645m E	Status: Historical Licence No: 7/34/03/*G/0025 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: AG BORE,TRAP LN,FAKENHAM Data Type: Point Name: HOWELL Easting: 591780 Northing: 331400	Annual Volume (m^3): 11800 Max Daily Volume (m^3): 77 Original Application No: - Original Start Date: 01/10/1966 Expiry Date: - Issue No: 101 Version Start Date: 05/06/2000 Version End Date: -
-	1726m SW	Status: Historical Licence No: 7/34/11/*G/0302 Details: General use relating to Secondary Category (Medium Loss) Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL AT SCULTHORPE MILL Data Type: Point Name: J MANNING & S SMITH Easting: 589210 Northing: 330300	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/1967 Expiry Date: - Issue No: 102 Version Start Date: 20/12/2002 Version End Date: -
-	1801m N	Status: Active Licence No: 7/34/03/*G/0035 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE AT WEST BARSHAM HALL Data Type: Point Name: KEITH Easting: 590480 Northing: 333550	Annual Volume (m^3): 14,700 Max Daily Volume (m^3): 38.60 Original Application No: - Original Start Date: 01/10/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1992 Version End Date: -
-	1801m N	Status: Active Licence No: 7/34/03/*G/0035 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE AT WEST BARSHAM HALL Data Type: Point Name: KEITH Easting: 590480 Northing: 333550	Annual Volume (m^3): 14,700 Max Daily Volume (m^3): 38.60 Original Application No: - Original Start Date: 01/10/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/1992 Version End Date: -
-	1959m E	Status: Historical Licence No: 7/34/03/*G/0055 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE 1 AT WATERHOUSE FARM Data Type: Point Name: M J GOODLEY & PARTNERS Easting: 592100 Northing: 332140	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/04/1995 Expiry Date: 30/09/2004 Issue No: 100 Version Start Date: 01/04/1995 Version End Date: -

ID	Location	Details	
-	1959m E	Status: Historical Licence No: 7/34/03/*G/0072 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE 1 AT WATERHOUSE FARM Data Type: Point Name: M J GOODLEY & PARTNERS Easting: 592100 Northing: 332140	Annual Volume (m^3): 140000 Max Daily Volume (m^3): 2100 Original Application No: - Original Start Date: 03/05/2005 Expiry Date: 31/03/2008 Issue No: 1 Version Start Date: 03/05/2005 Version End Date: -
-	1959m E	Status: Historical Licence No: 7/34/03/*G/0072A Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE 1 AT WATERHOUSE FARM Data Type: Point Name: M J GOODLEY & PARTNERS Easting: 592100 Northing: 332140	Annual Volume (m^3): 120000 Max Daily Volume (m^3): 2100 Original Application No: - Original Start Date: 01/04/2008 Expiry Date: 31/03/2010 Issue No: 1 Version Start Date: 01/04/2008 Version End Date: -
-	1959m E	Status: Historical Licence No: AN/034/0003/007 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE 'A' AT WATERHOUSE FARM Data Type: Point Name: M J GOODLEY & PARTNERS Easting: 592100 Northing: 332140	Annual Volume (m^3): 100000 Max Daily Volume (m^3): 2100 Original Application No: - Original Start Date: 01/04/2010 Expiry Date: 31/03/2017 Issue No: 2 Version Start Date: 03/07/2014 Version End Date: -
-	1978m E	Status: Active Licence No: AN/034/0003/007/R01 Details: Spray Irrigation - Direct Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE 'A' AT WATERHOUSE FARM Data Type: Point Name: M J GOODLEY & PARTNERS Easting: 592123 Northing: 332118	Annual Volume (m^3): 100,000 Max Daily Volume (m^3): 2,100 Original Application No: - Original Start Date: 01/04/2017 Expiry Date: 31/03/2029 Issue No: 1 Version Start Date: 01/04/2017 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0

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

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

5.8 Potable abstractions

Records within 2000m	0

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

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

5.9 Source Protection Zones

Records within 500m	1

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 35**

ID	Location	Type	Description
1	1m N	3	Total catchment

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

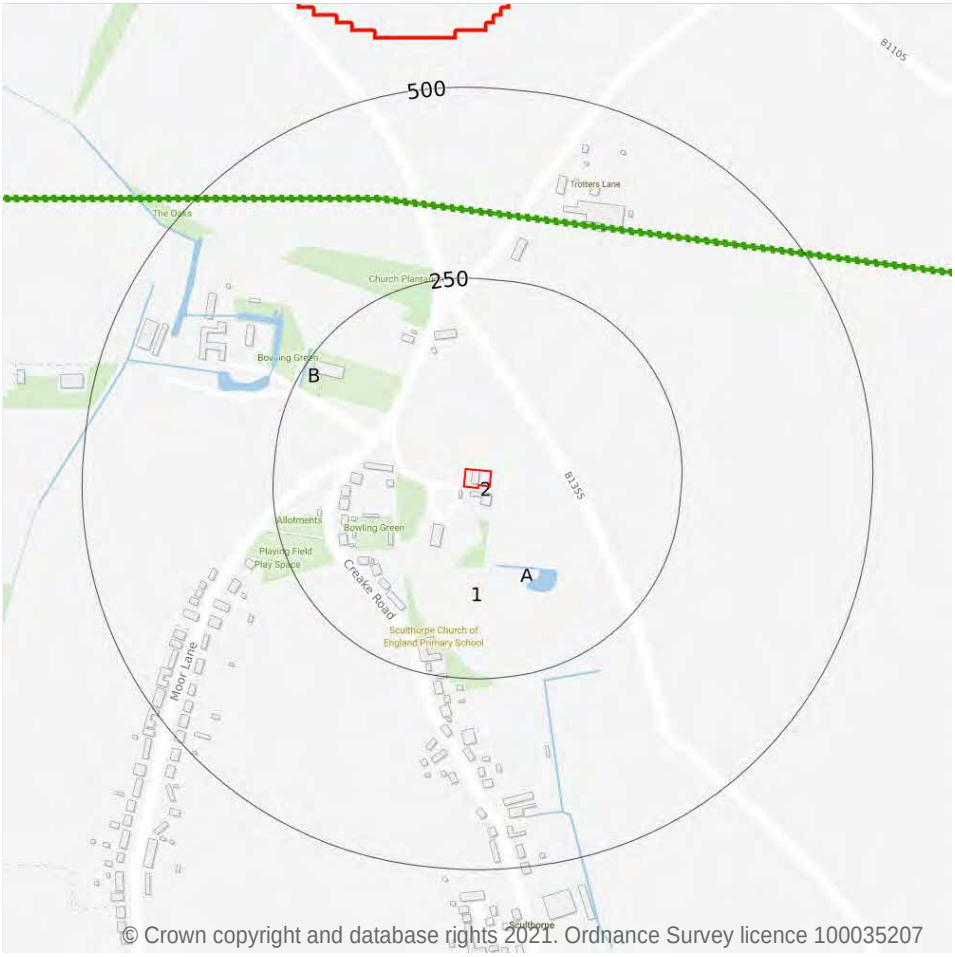
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology



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	3

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 41**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	103m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
A	126m SE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	242m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	3

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

Features are displayed on the Hydrology map on **page 41**

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 41**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**River WB catchment**	**Wensum US Norwich**	**GB105034055881**	**Wensum**	**Broadland Rivers**

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 41**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1510m S	River	Wensum US Norwich	GB105034055881	Moderate	Good	Moderate	2016

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

6.5 WFD Groundwater bodies

Records on site	1

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

Features are displayed on the Hydrology map on **page 41**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	**On site**	**Broadland Rivers Chalk & Crag**	**GB40501G400300**	**Poor**	**Poor**	**Poor**	**2015**

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

7 River and coastal flooding

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m	0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding

8.1 Surface water flooding

Highest risk on site	Negligible
Highest risk within 50m	Negligible

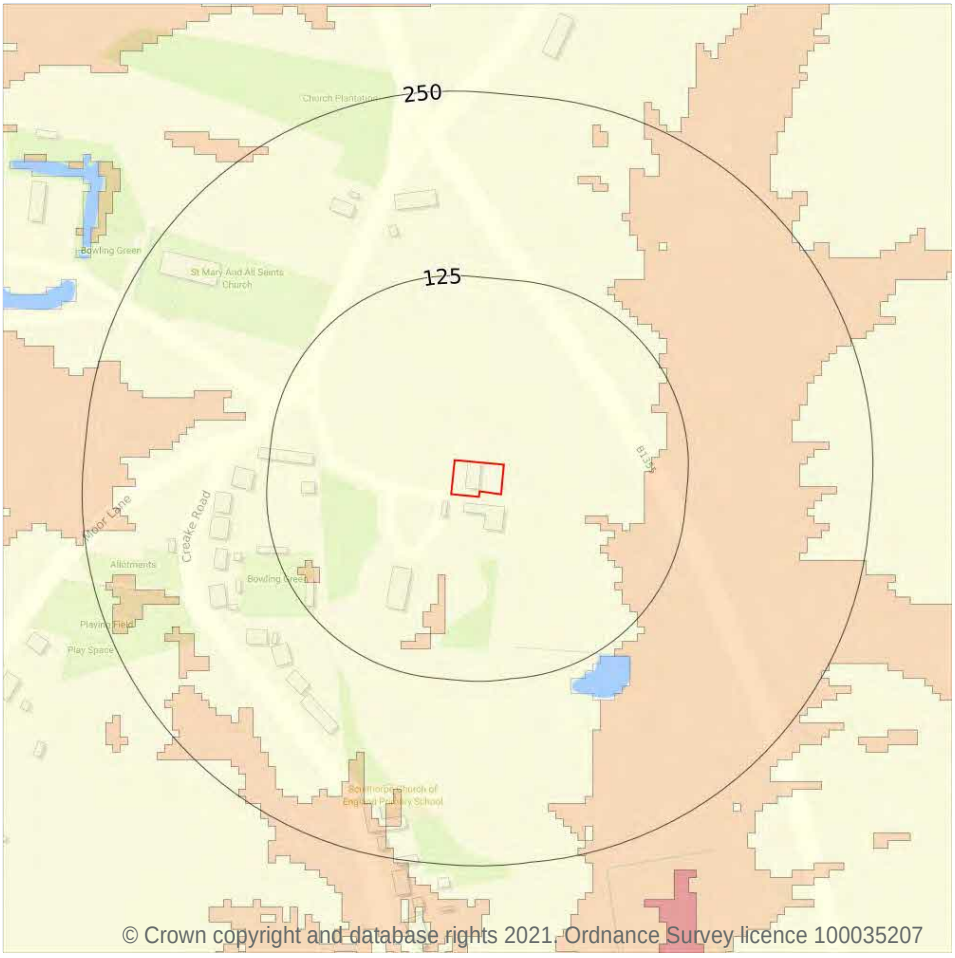
Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year 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.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site	Moderate
Highest risk within 50m	Moderate

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

Features are displayed on the Groundwater flooding map on **page 48**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations

Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SS

Special Areas of Conservation (SAC)

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	2

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

Features are displayed on the Environmental designations map on **page 49**

ID	Location	Name	Data source
-	1424m S	River Wensum	Natural England

ID	Location	Name	Data source
-	1721m SW	River Wensum	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 49**

ID	Location	Name	Features of interest	Habitat description	Data source
-	1424m S	River Wensum	Rivers with floating vegetation often dominated by water-crowfoot; Calcium-rich fen dominated by great fen sedge (saw sedge); Alder woodland on floodplains; Brook lamprey; Bullhead; Desmoulin`s whorl snail; White-clawed (or Atlantic stream) crayfish.	Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Humid grassland, Mesophile grassland; Inland water bodies (Standing water, Running water)	Natural England

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	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

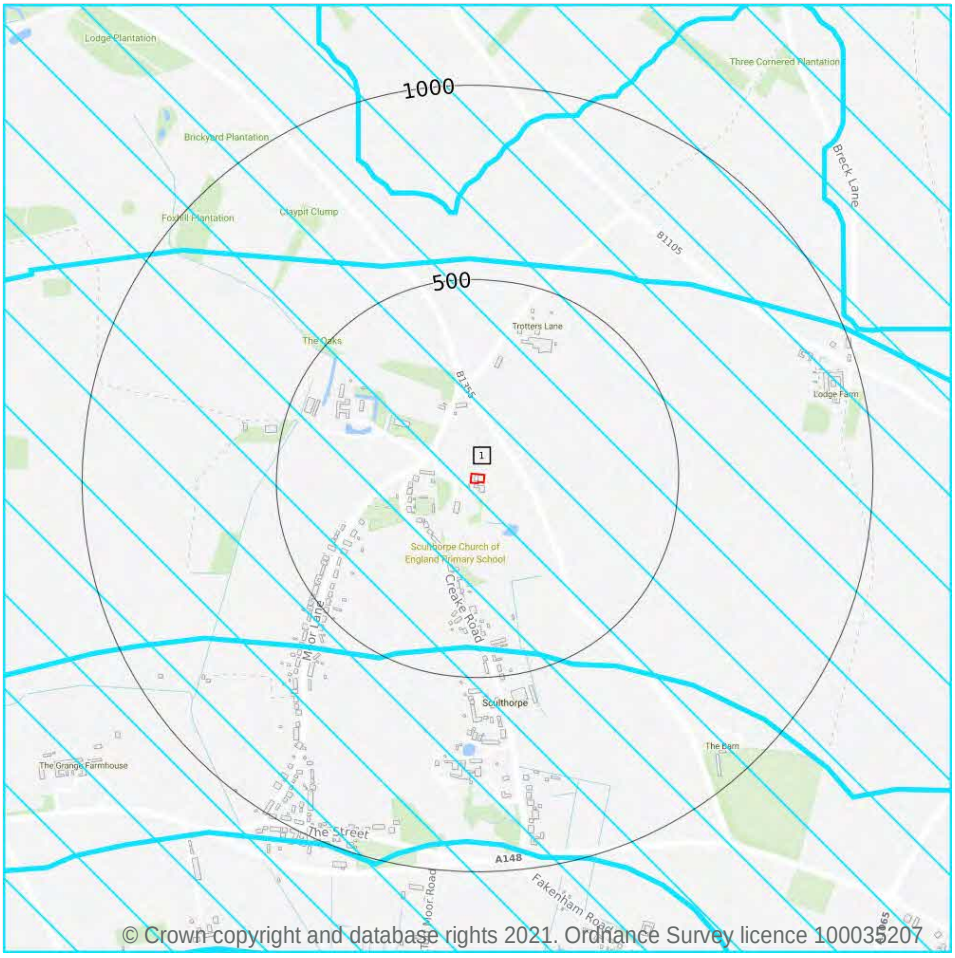
Records within 2000m	1

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	**Anglian Chalk**	**Groundwater**	**G71**	**Existing**

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

SSSI Impact Zones and Units



Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 54**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Rural residential - Any residential development of 100 or more houses outside existing settlements/urban areas. Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 200m² & manure stores > 250t). Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location). Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	4

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

Features are displayed on the SSSI Impact Zones and Units map on **page 54**

ID: -
Location: 1424m S
SSSI name: River Wensum
Unit name: Sculthorpe Moor
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
River supporting habitat	Not Recorded	01/01/1900

Feature name	Feature condition	Date of assessment
S1016 Desmoulin's whorl snail, Vertigo moulinsiana	Unfavourable - Recovering	22/01/2010

ID: -
Location: 1502m S
SSSI name: River Wensum
Unit name: Confluence - Fakenham Mill
Broad habitat: Rivers And Streams
Condition: Unfavourable - No change
Reportable features:

Feature name	Feature condition	Date of assessment
H3260 Water courses of plain to montane levels with R. fluitantis	Unfavourable - No change	26/03/2010
Rivers and Streams	Not Recorded	01/01/1900
S1016 Desmoulin's whorl snail, Vertigo moulinsiana	Unfavourable - No change	26/03/2010
S1092 Freshwater crayfish, Austropotamobius pallipes	Unfavourable - No change	26/03/2010
S1096 Brook lamprey, Lampetra planeri	Unfavourable - No change	26/03/2010
S1163 Bullhead, Cottus gobio	Unfavourable - No change	26/03/2010

ID: -
Location: 1721m SW
SSSI name: River Wensum
Unit name: Manor Farm Crisp
Broad habitat: Neutral Grassland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
River supporting habitat	Unfavourable - Recovering	01/10/2010

ID: -
Location: 1759m SW
SSSI name: River Wensum
Unit name: Dunton Farm
Broad habitat: Fen, Marsh And Swamp - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
River supporting habitat	Not Recorded	01/01/1900
S1016 Desmoulin's whorl snail, Vertigo moulinsiana	Unfavourable - Recovering	20/01/2010

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

11 Visual and cultural designations

Site Outline

Search buffers in metres (m)

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

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	4

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

Features are displayed on the Visual and cultural designations map on **page 58**

ID	Location	Name	Grade	Reference Number	Listed date
1	66m SW	Sculthorpe House, Sculthorpe, North Norfolk, Norfolk, NR21	II	1171473	16/01/1984
2	113m W	No 46 And Trafalgar Cottage, Sculthorpe, North Norfolk, Norfolk, NR21	II	1049377	16/01/1984
3	219m S	School, Sculthorpe, North Norfolk, Norfolk, NR21	II	1373692	16/01/1984
4	226m NW	Church Of St Mary And All Saints, Sculthorpe, North Norfolk, Norfolk, NR21	II*	1049380	06/03/1959

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.

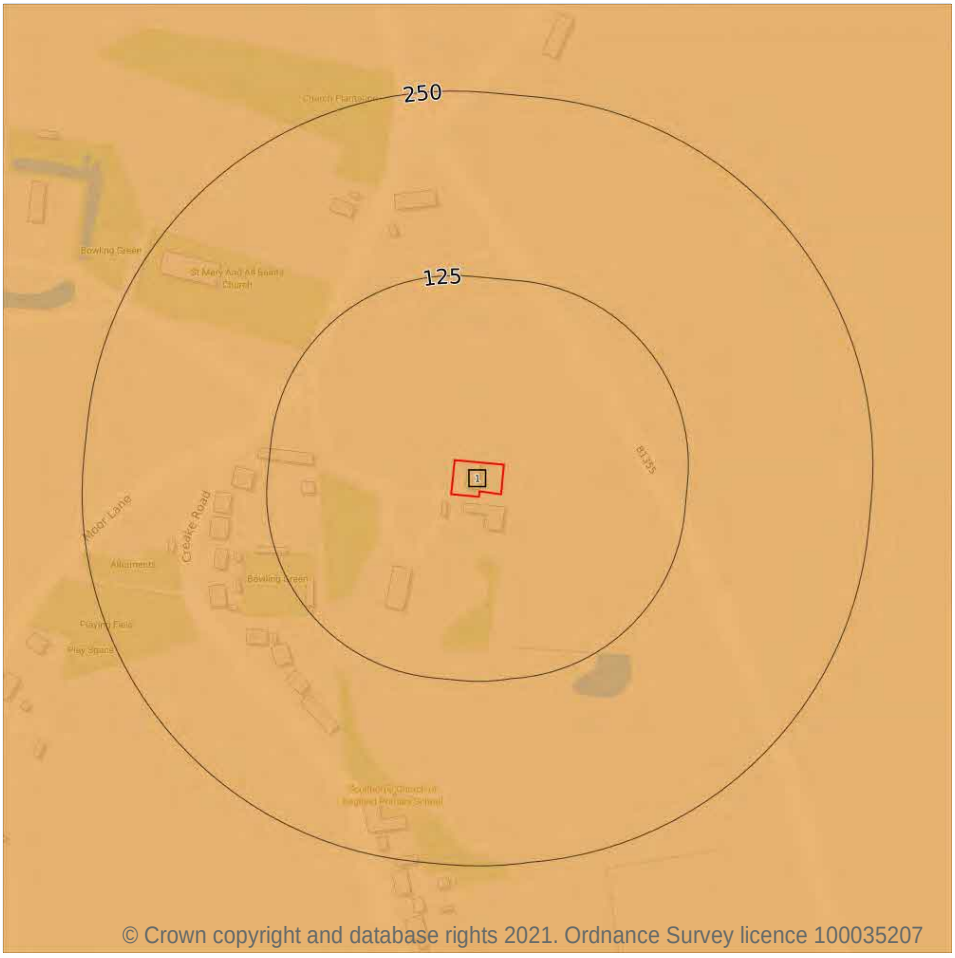
11.7 Registered Parks and Gardens

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

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	2

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

Location	Reference	Scheme	Start Date	End date
134m NW	AG00421159	Entry Level plus Higher Level Stewardship	01/12/2012	30/11/2022
235m N	AG00421159	Entry Level plus Higher Level Stewardship	01/12/2012	30/11/2022

This data is sourced from Natural England.

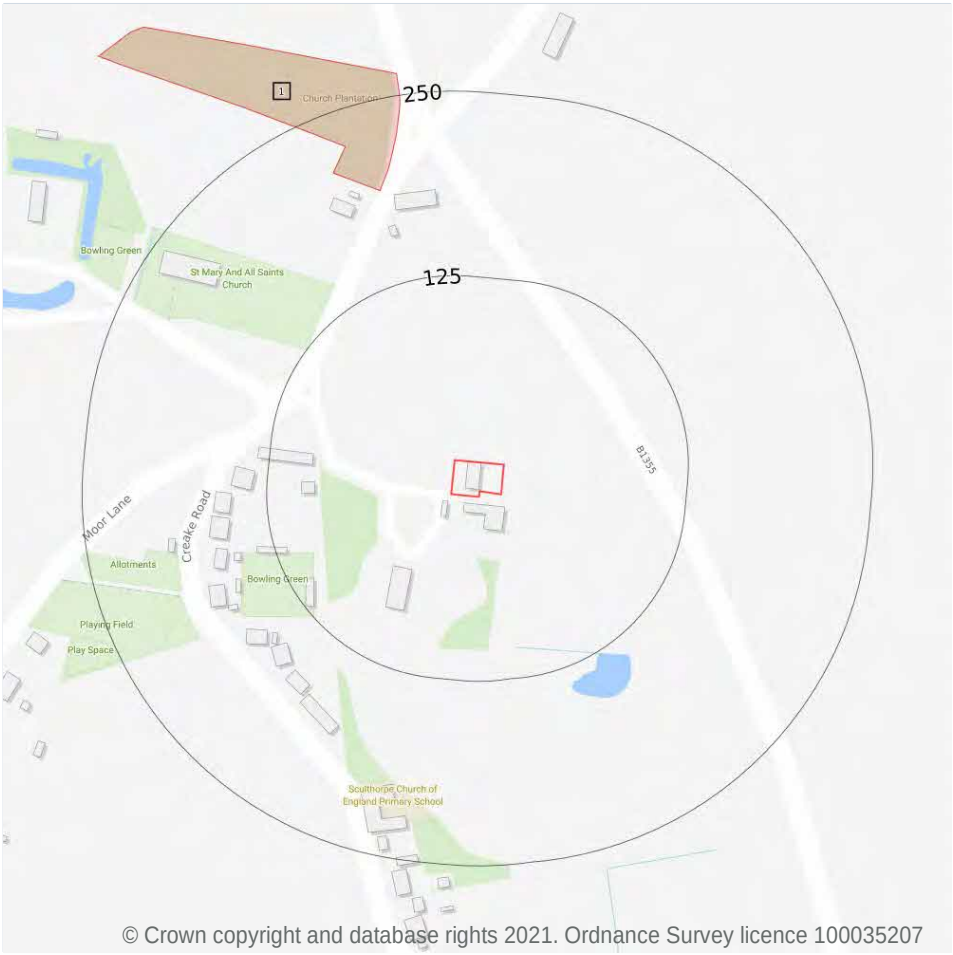
12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders

Habitat Networks

- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	1

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

Features are displayed on the Habitat designations map on **page 63**

ID	Location	Main Habitat	Other habitats
1	190m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

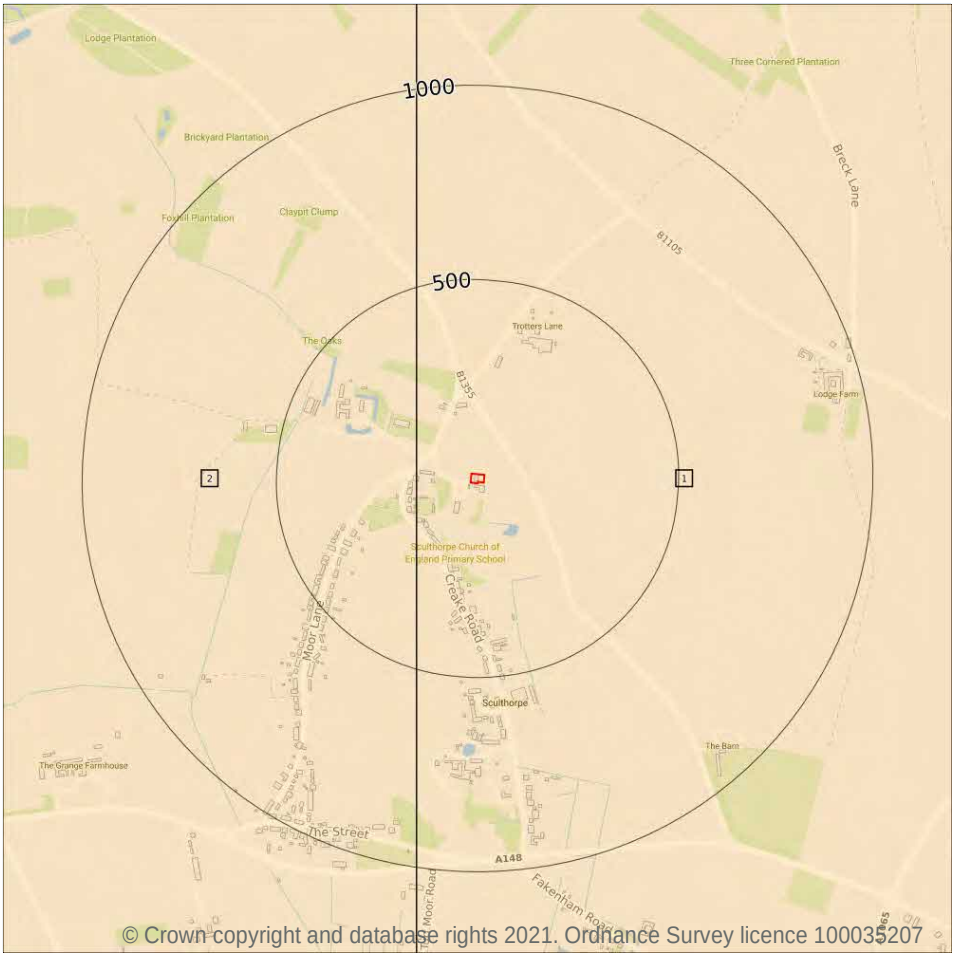
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	2

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 65**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Partial**	**Partial**	**No coverage**	**TF93SW**
2	139m W	Full	Partial	Partial	No coverage	TF83SE

This data is sourced from the British Geological Survey.

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

14.2 Artificial and made ground (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

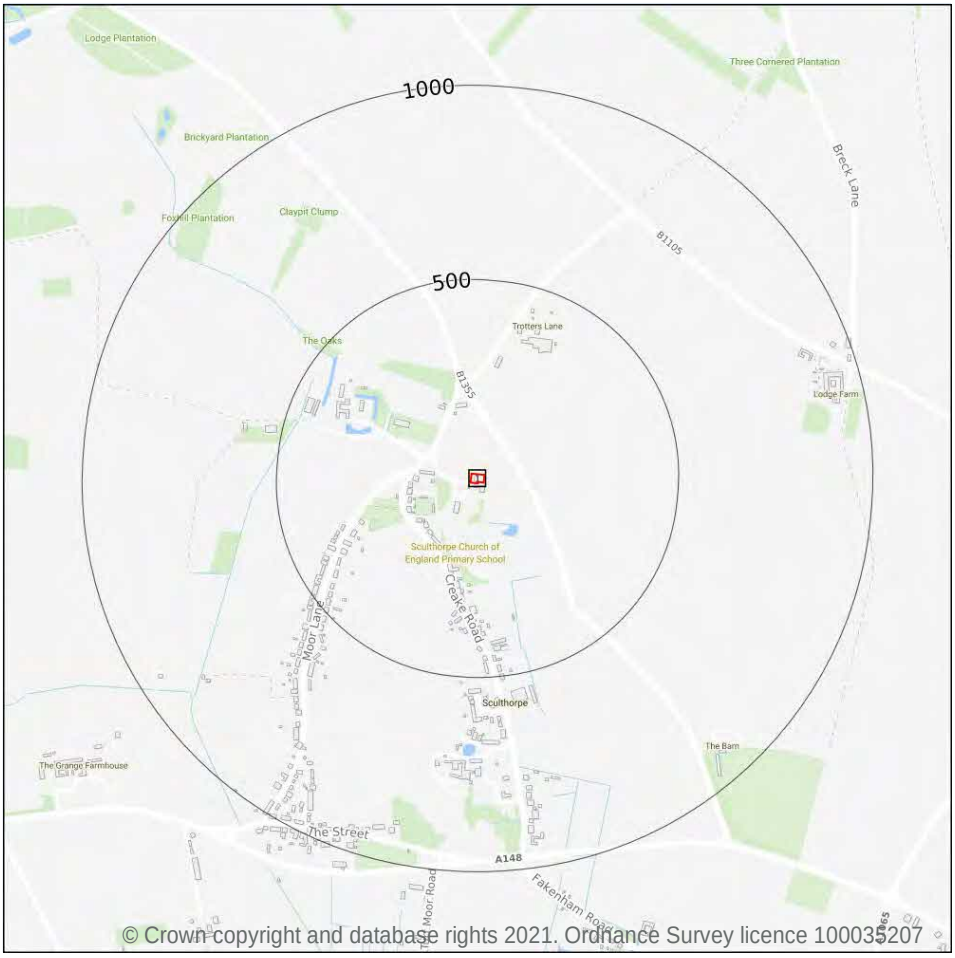
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 69**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	EW146_fakenham_v4

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

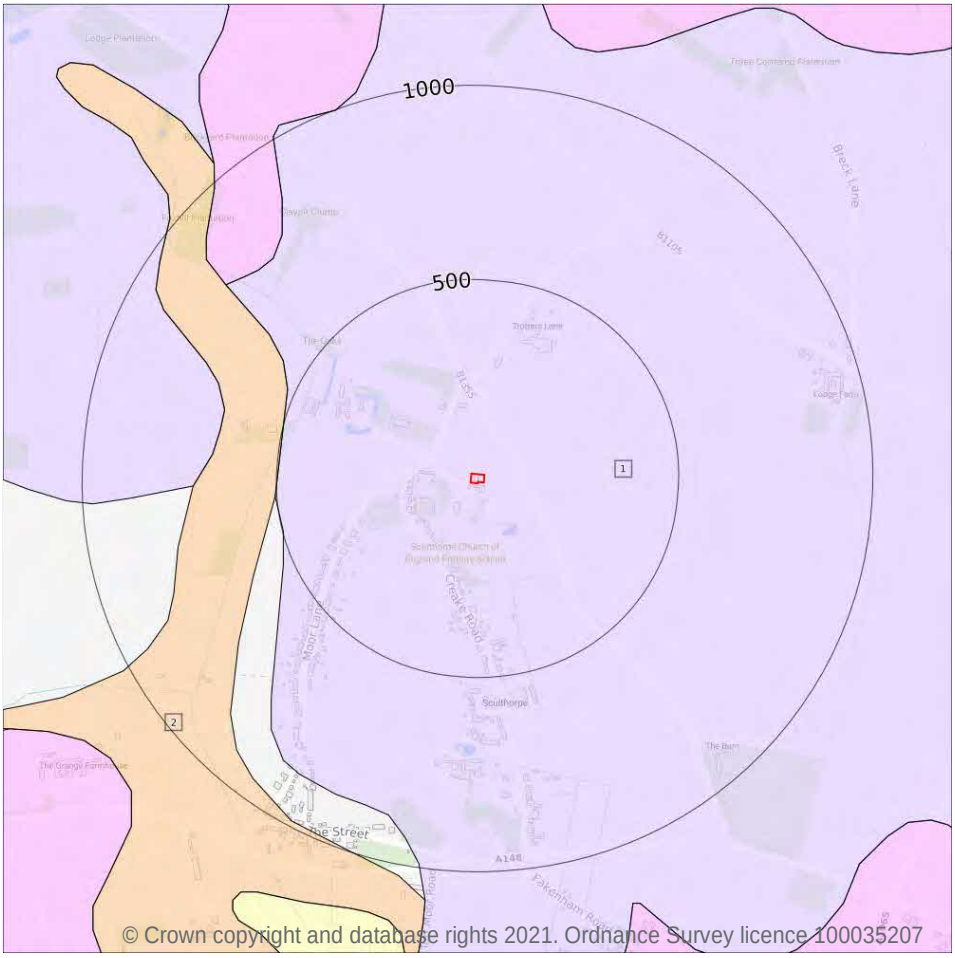
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m 2

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

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

ID	Location	LEX Code	Description	Rock description
1	**On site**	**SM CL-XCZSV**	**SHERINGHAM CLIFFS FORMATION**	**CLAY, SILT, SAND AND GRAVEL**
2	495m W	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	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.

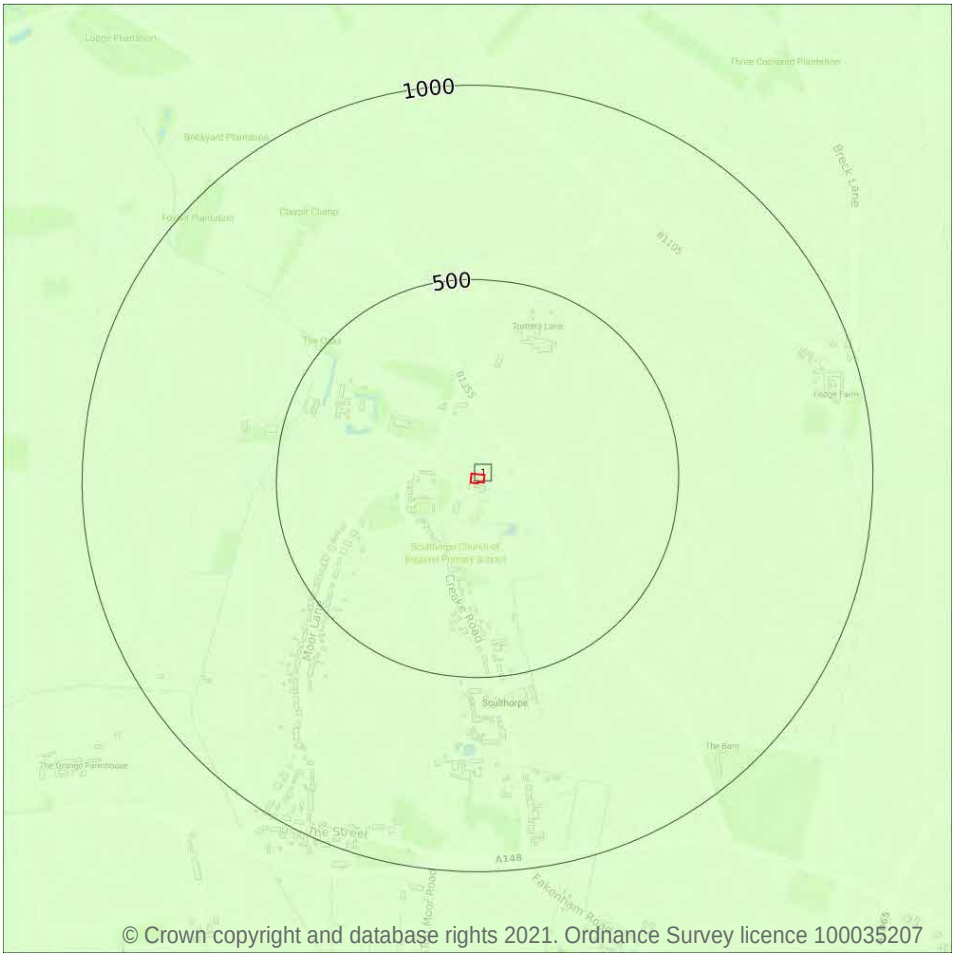
15.7 Landslip permeability (50k)

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 73**

ID	Location	LEX Code	Description	Rock age
1	On site	LCCK-CHLK	LEWES NODULAR CHALK FORMATION, SEAFORD CHALK FORMATION, NEWHAVEN CHALK FORMATION AND CULVER CHALK FORMATION (UNDIFFERENTIATED) - CHALK	TURONIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes

Site Outline

Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m 2

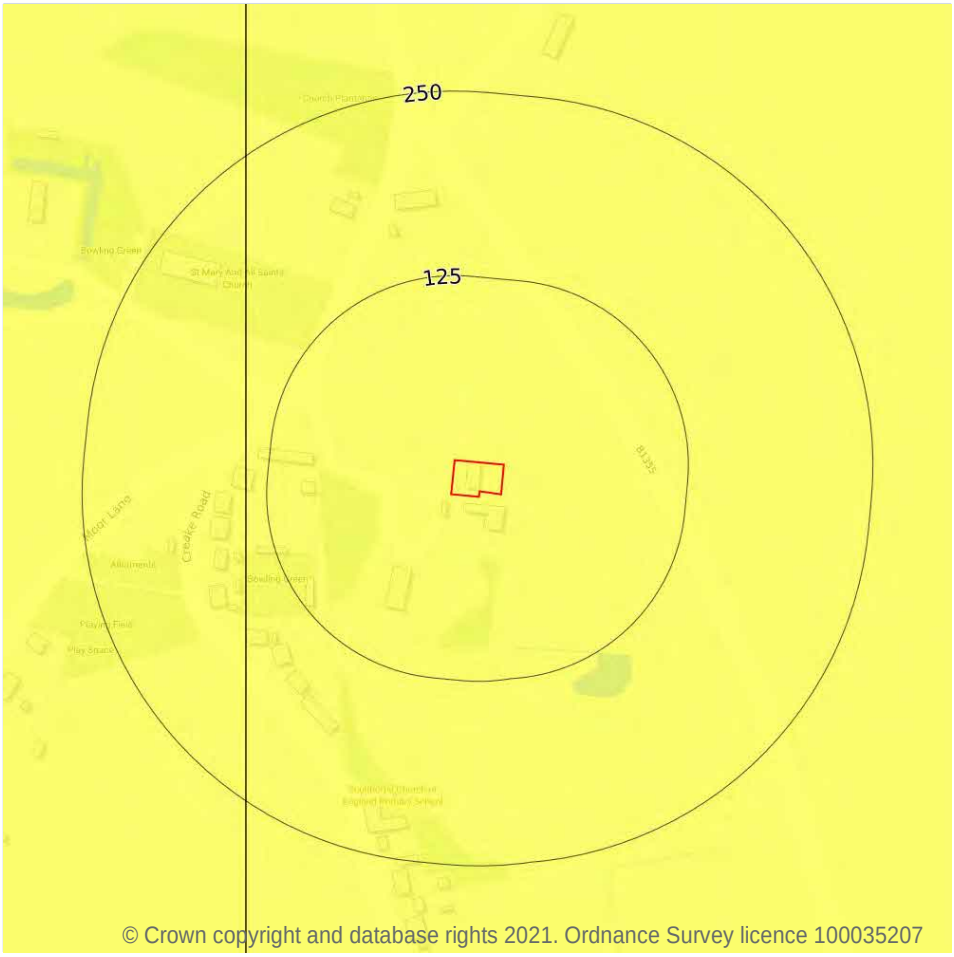
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several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

Features are displayed on the Boreholes map on **page 75**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	69m W	590070 331750	SCULTHORPE FARM,FAKENHAM	67.06	N	512501
2	167m N	590100 331940	NEW RECTORY SCULTHORPE	17.1	N	512515

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

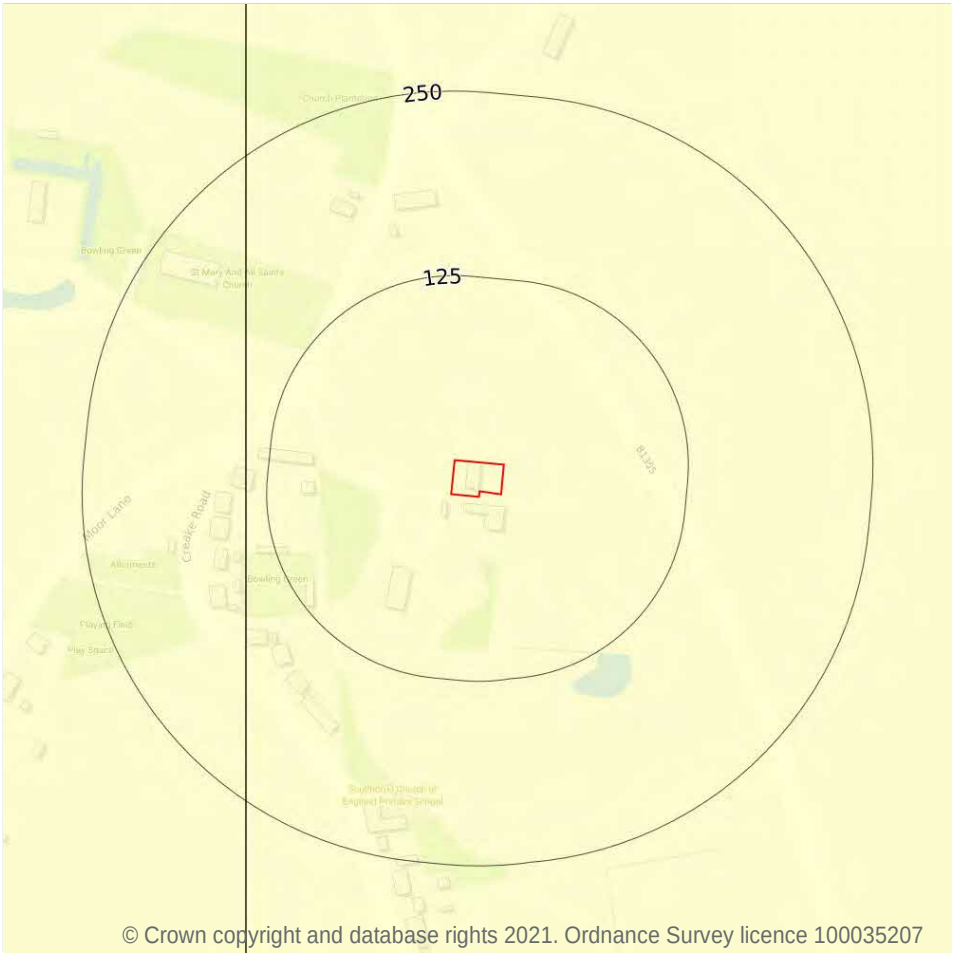
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 76**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	1

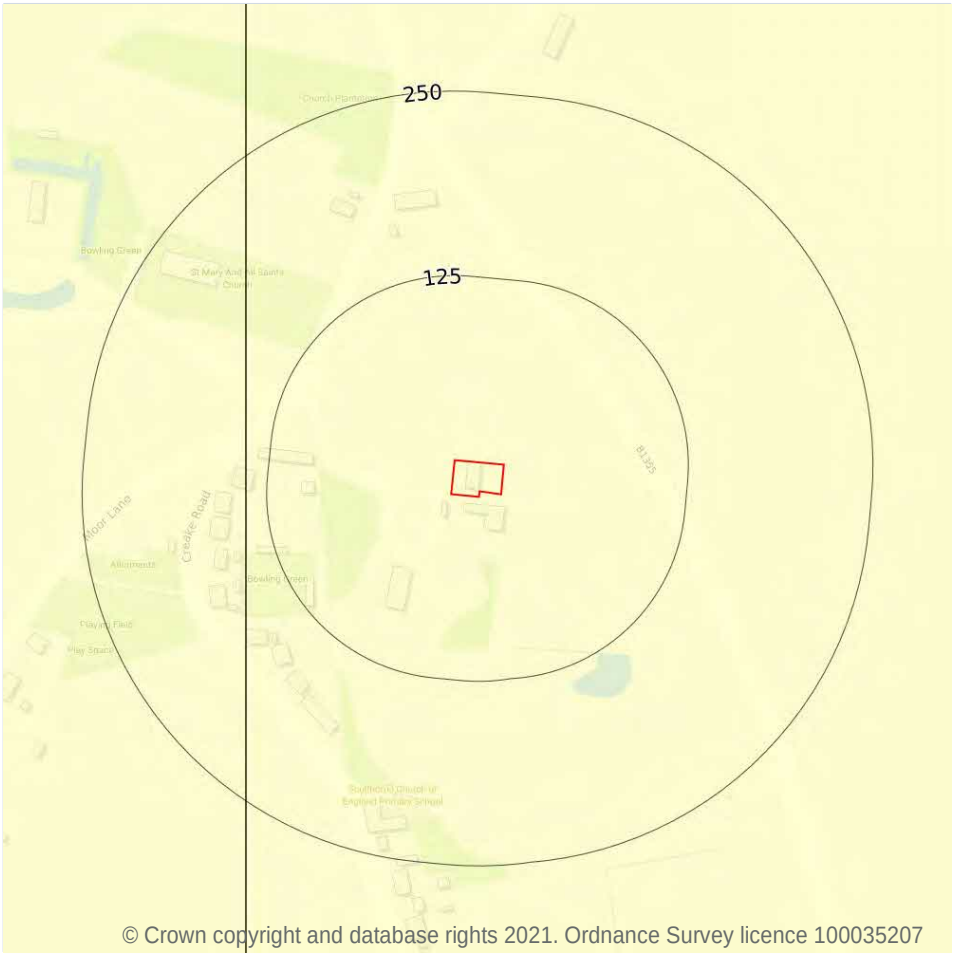
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 77**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

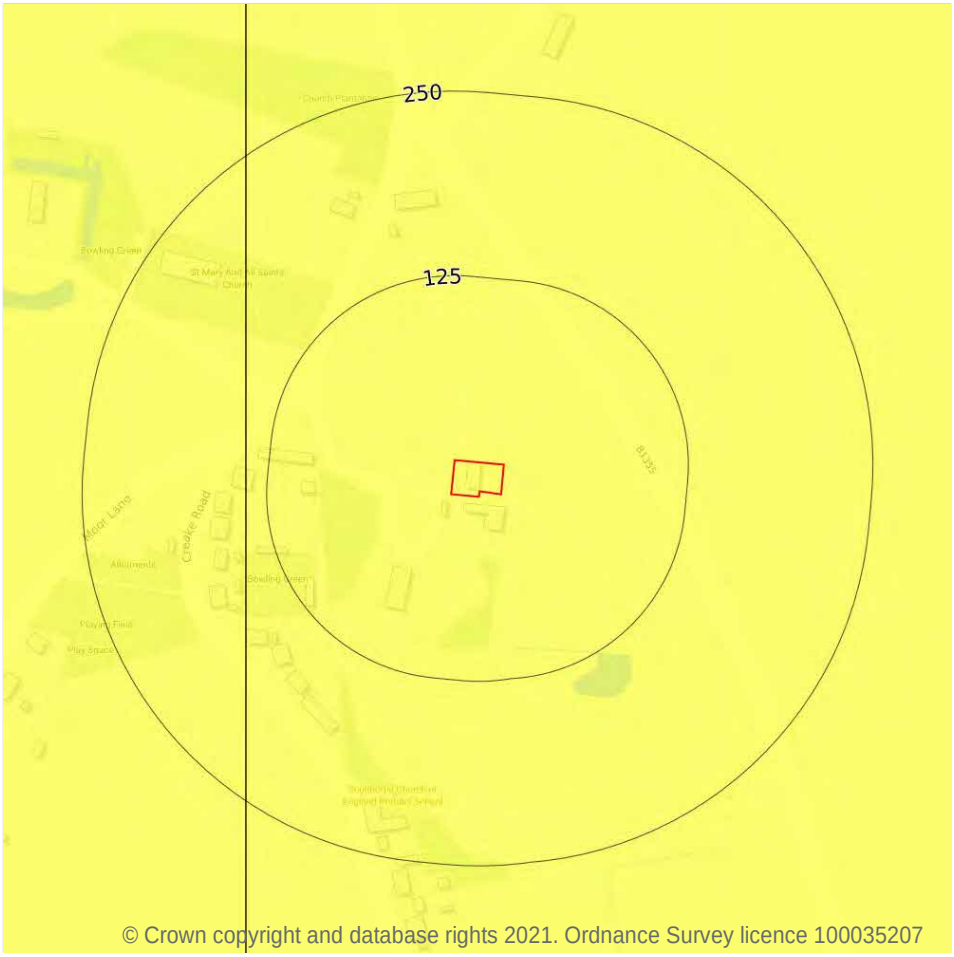
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 78**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

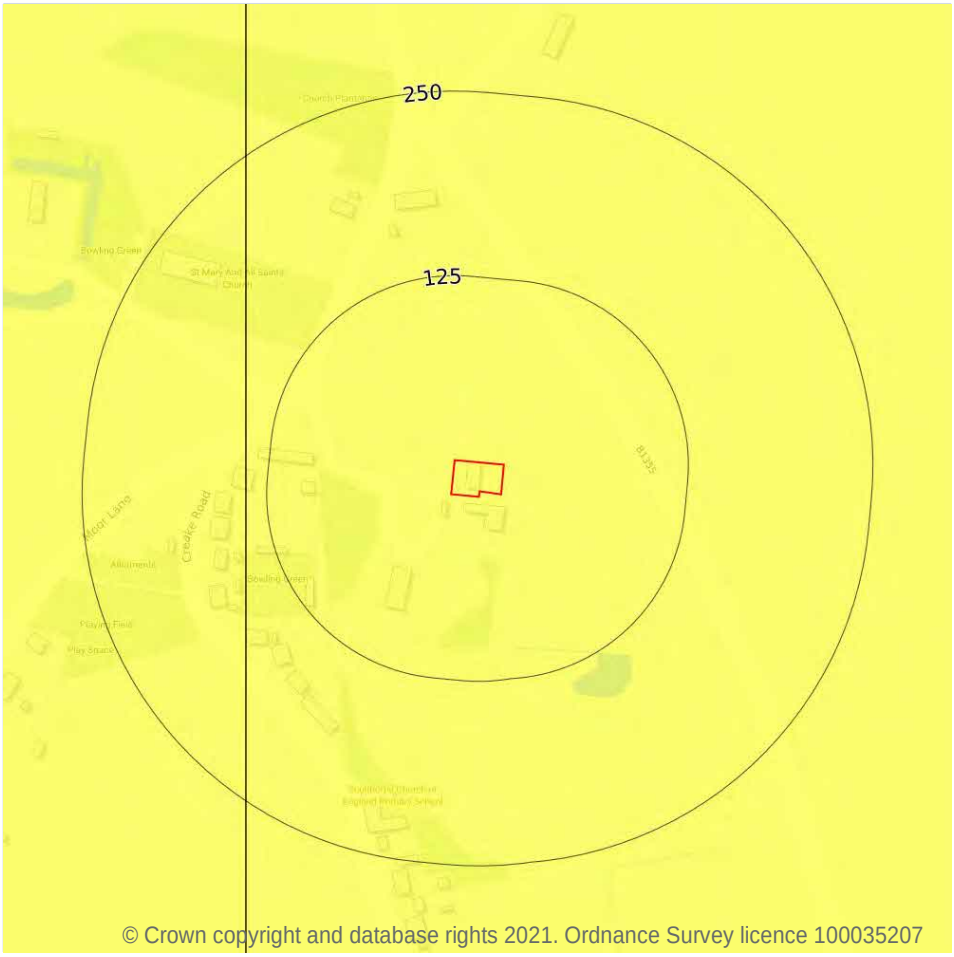
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 79**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m	1

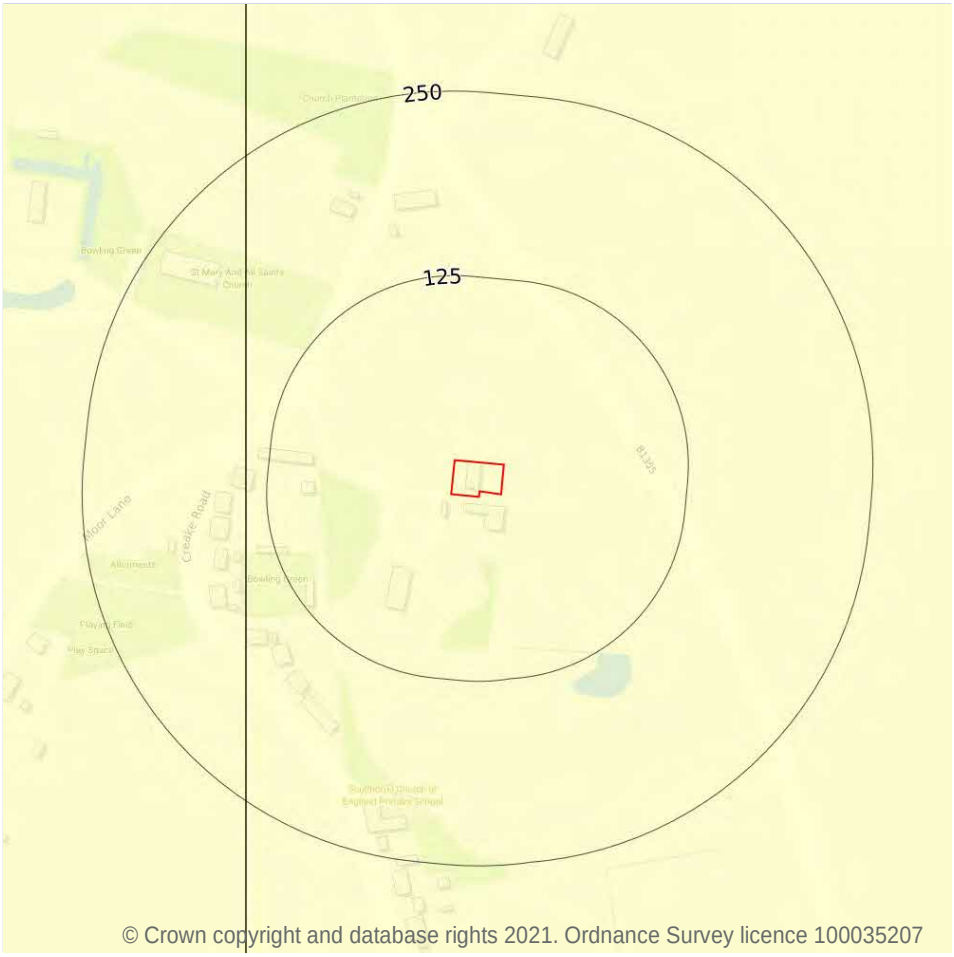
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 80**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m	1

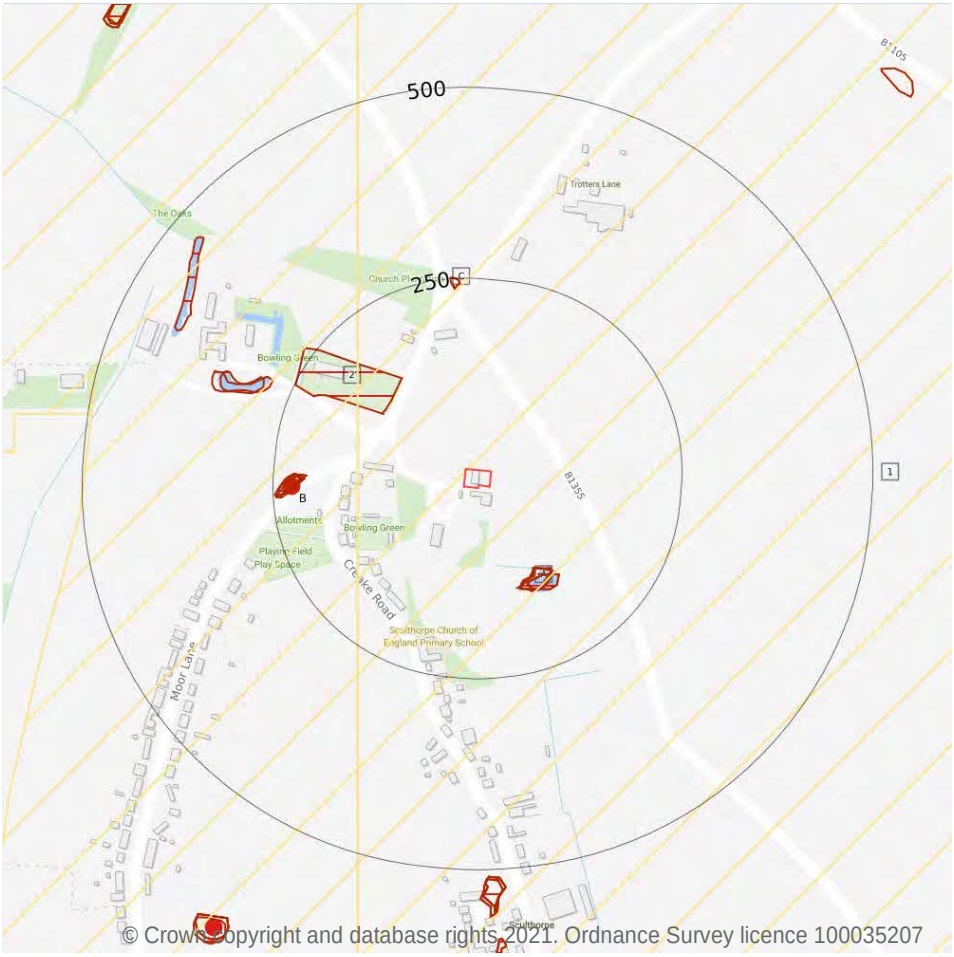
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 81**

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

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities

Non Coal Mining

- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	1

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 82**

ID	Location	Details	Description
B	226m W	Name: Crockley Pit Address: Sculthorpe, FAKEHAM, Norfolk Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	16

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 82**

ID	Location	Land Use	Year of mapping	Mapping scale
A	121m SE	Pond	1950	1:10560
A	121m SE	Pond	1950	1:10560
A	121m SE	Pond	1885	1:10560
A	121m SE	Pond	1950	1:10560
A	122m SE	Pond	1906	1:10560
2	130m NW	Grave Yard	1885	1:10560
A	131m SE	Pond	1973	1:10000
A	131m SE	Pond	1988	1:10000
B	207m W	Unspecified Pit	1982	1:10000
B	209m W	Unspecified Pit	1950	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
B	212m W	Unspecified Pit	1950	1:10560
B	212m W	Unspecified Pit	1885	1:10560
B	214m W	Unspecified Pit	1906	1:10560
B	214m W	Unspecified Pit	1906	1:10560
C	237m N	Unspecified Disused Pit	1973	1:10000
C	237m N	Unspecified Disused Pit	1988	1:10000

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	2

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 82**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Chalk**	**A**	**Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered**
3	139m W	Not available	Chalk	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

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

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

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

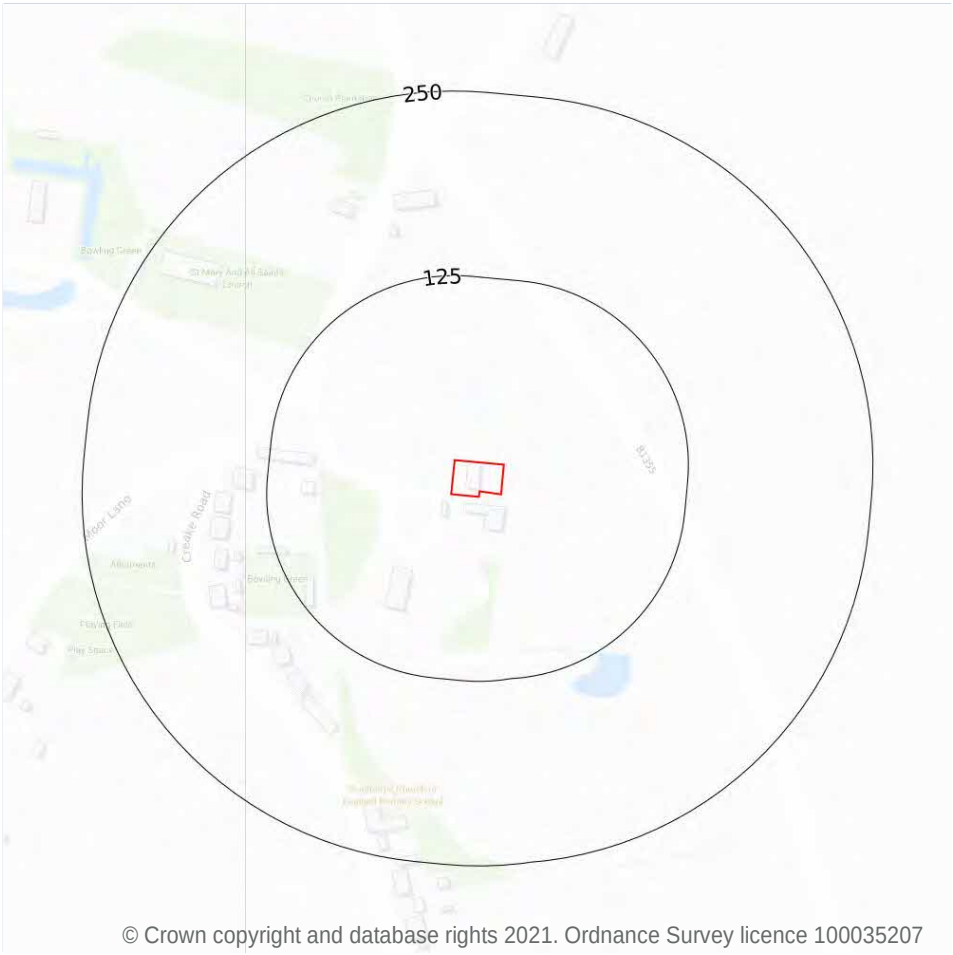
18.13 Clay mining

Records on site	0

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

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

19 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

19.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 87**

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

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

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m	1

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^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 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**40 - 60 mg/kg**	**15 mg/kg**

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

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

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

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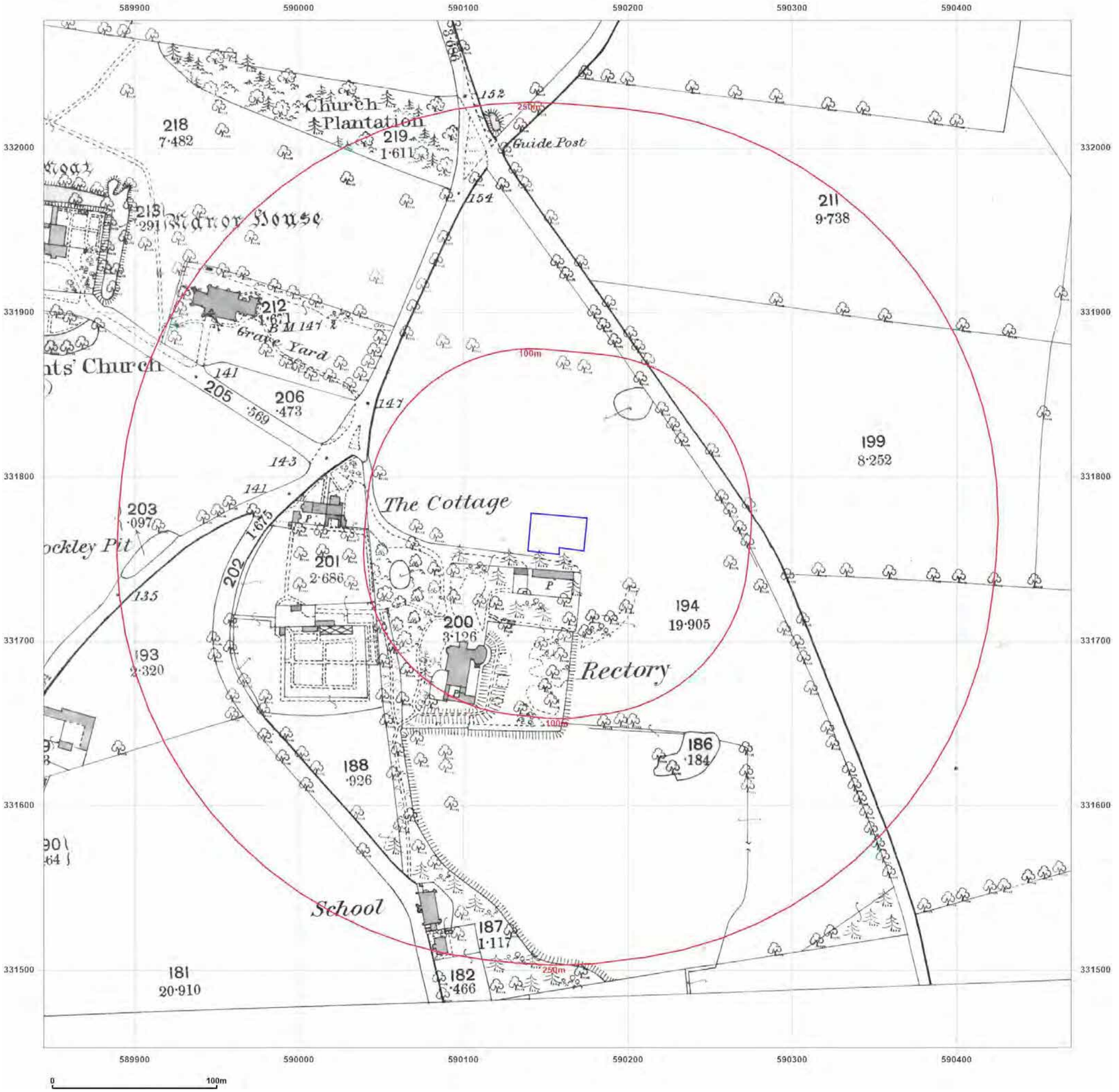
APPENDIX C: HISTORICAL MAPS

Large and small scale maps (Groundsure, report reference GS-8177849)



Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: County Series
Map date: **1886**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1886
Revised 1886
Edition N/A
Copyright N/A
Levelled N/A

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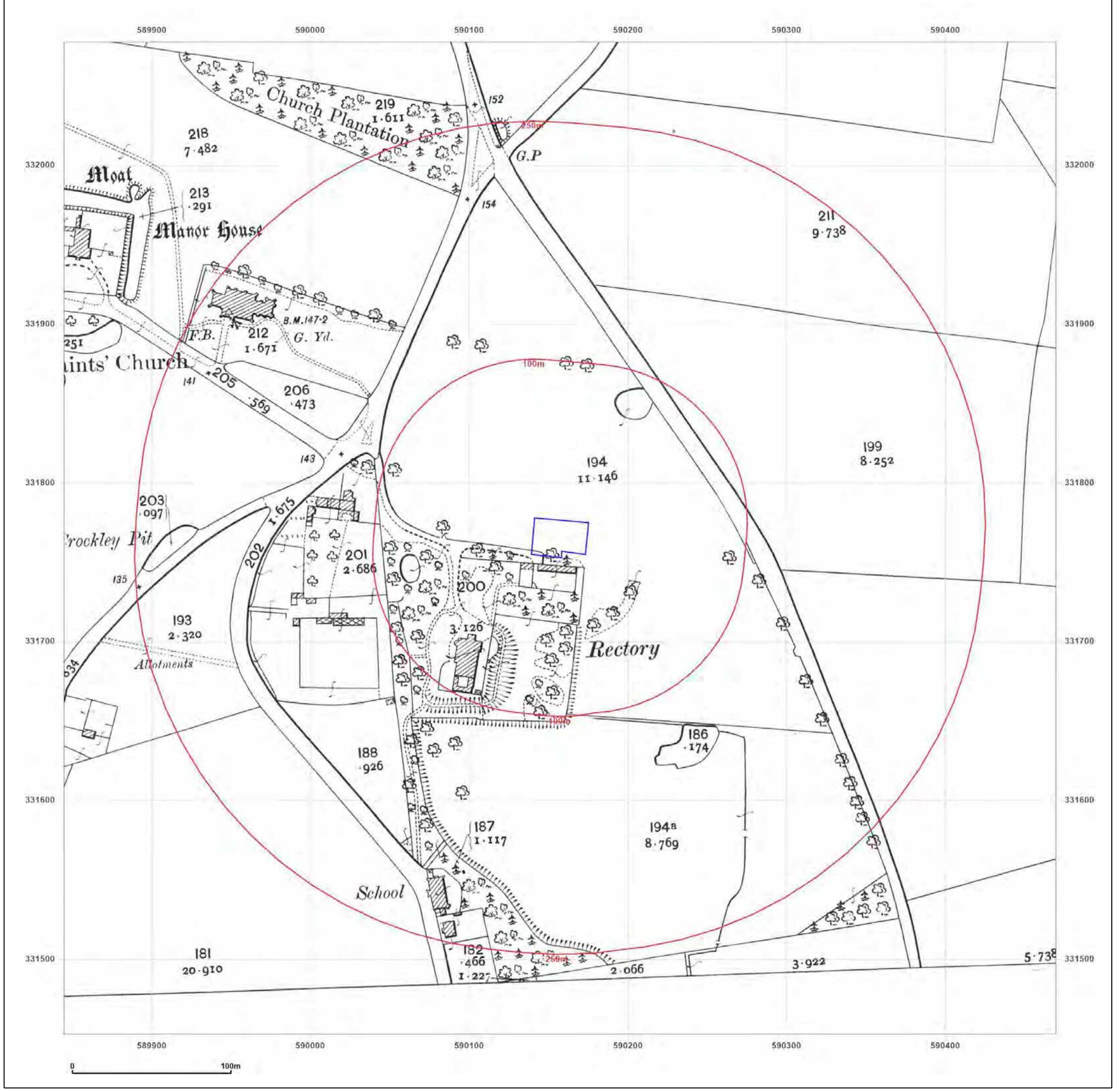

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: County Series
Map date: **1905**
Scale: 1:2,500
Printed at: 1:2,500

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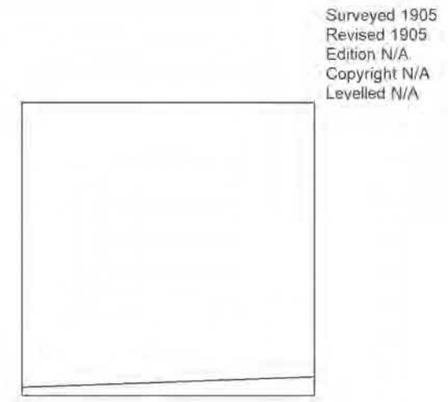

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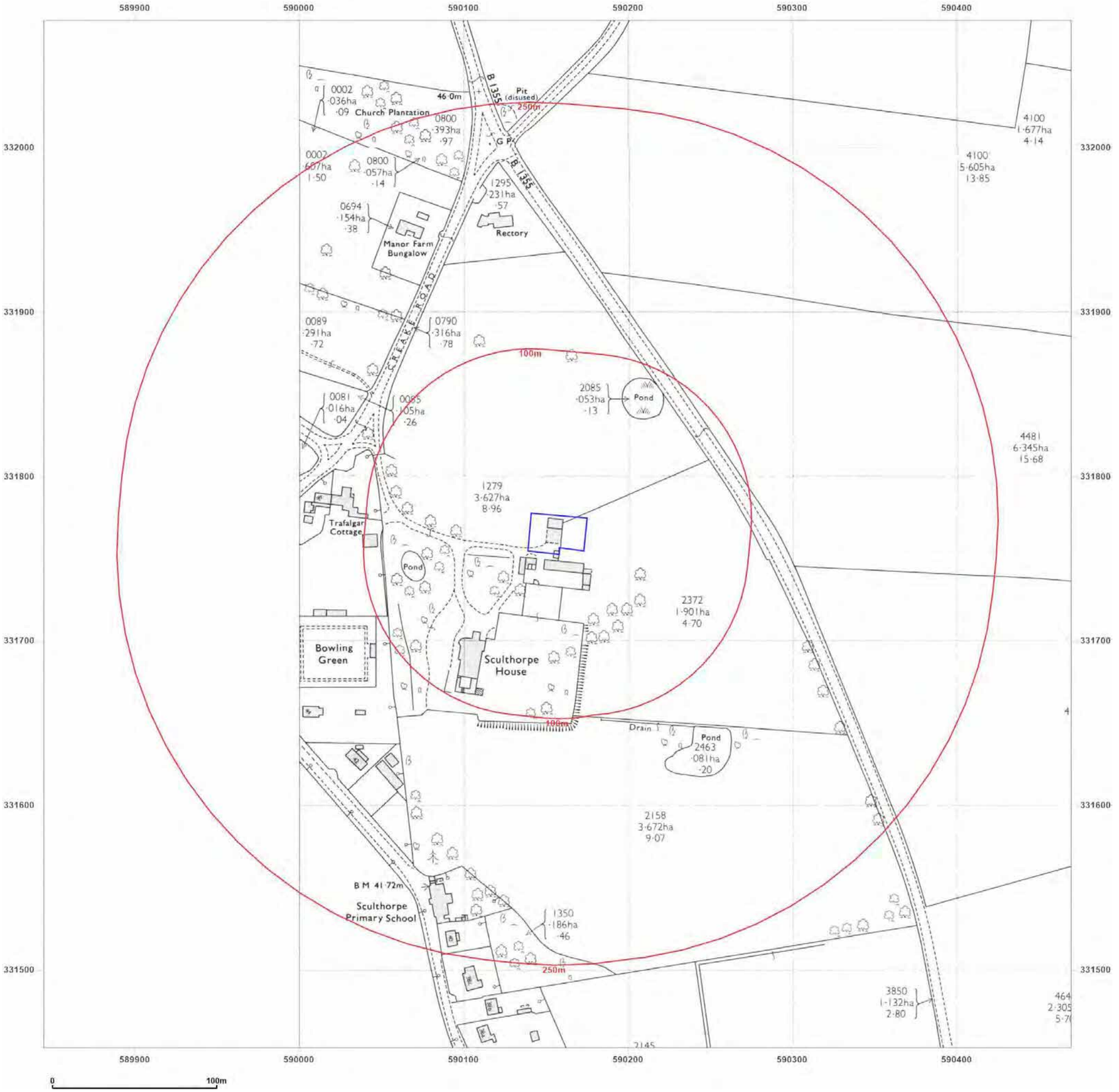

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Site Details

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Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid

Map date: **1971**

Scale: 1:2,500

Printed at: 1:2,500

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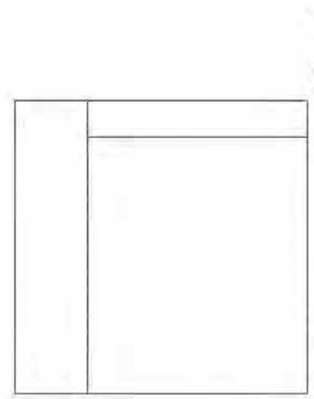

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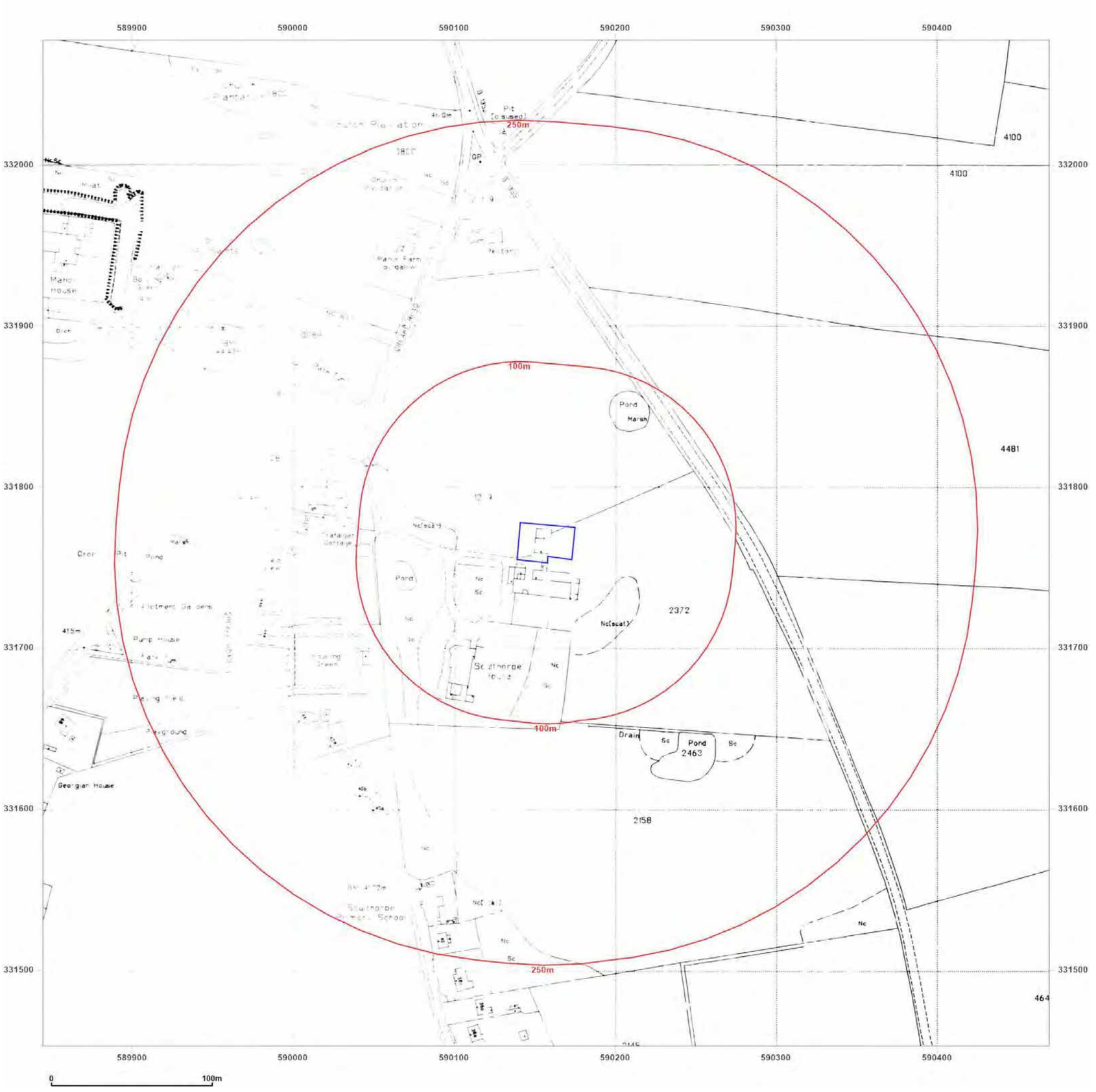

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid

Map date: **1995**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1995
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1995
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
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Surveyed N/A
Revised N/A
Edition N/A
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Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

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

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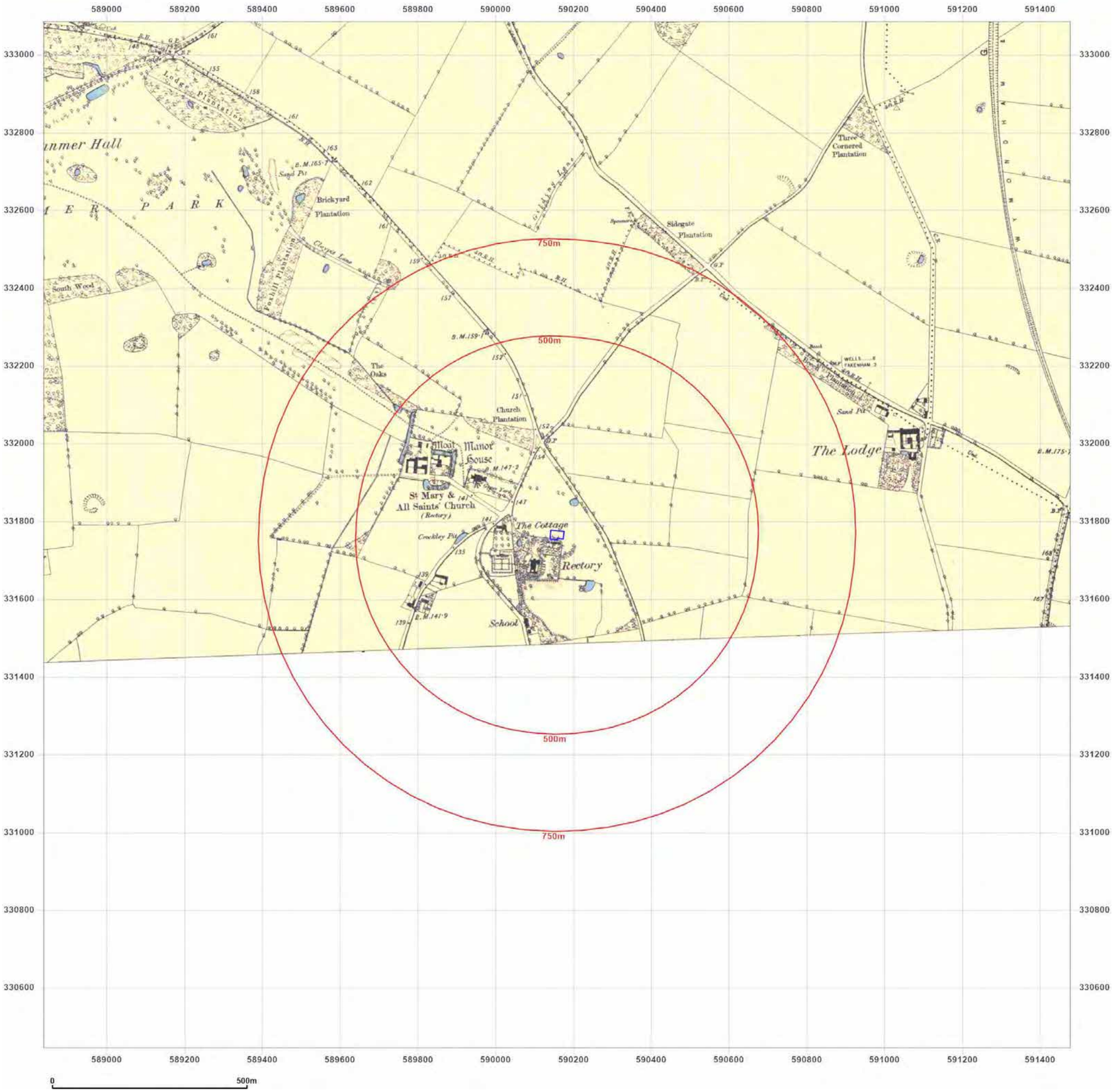

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: County Series

Map date: **1885**

Scale: 1:10,560

Printed at: 1:10,560

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

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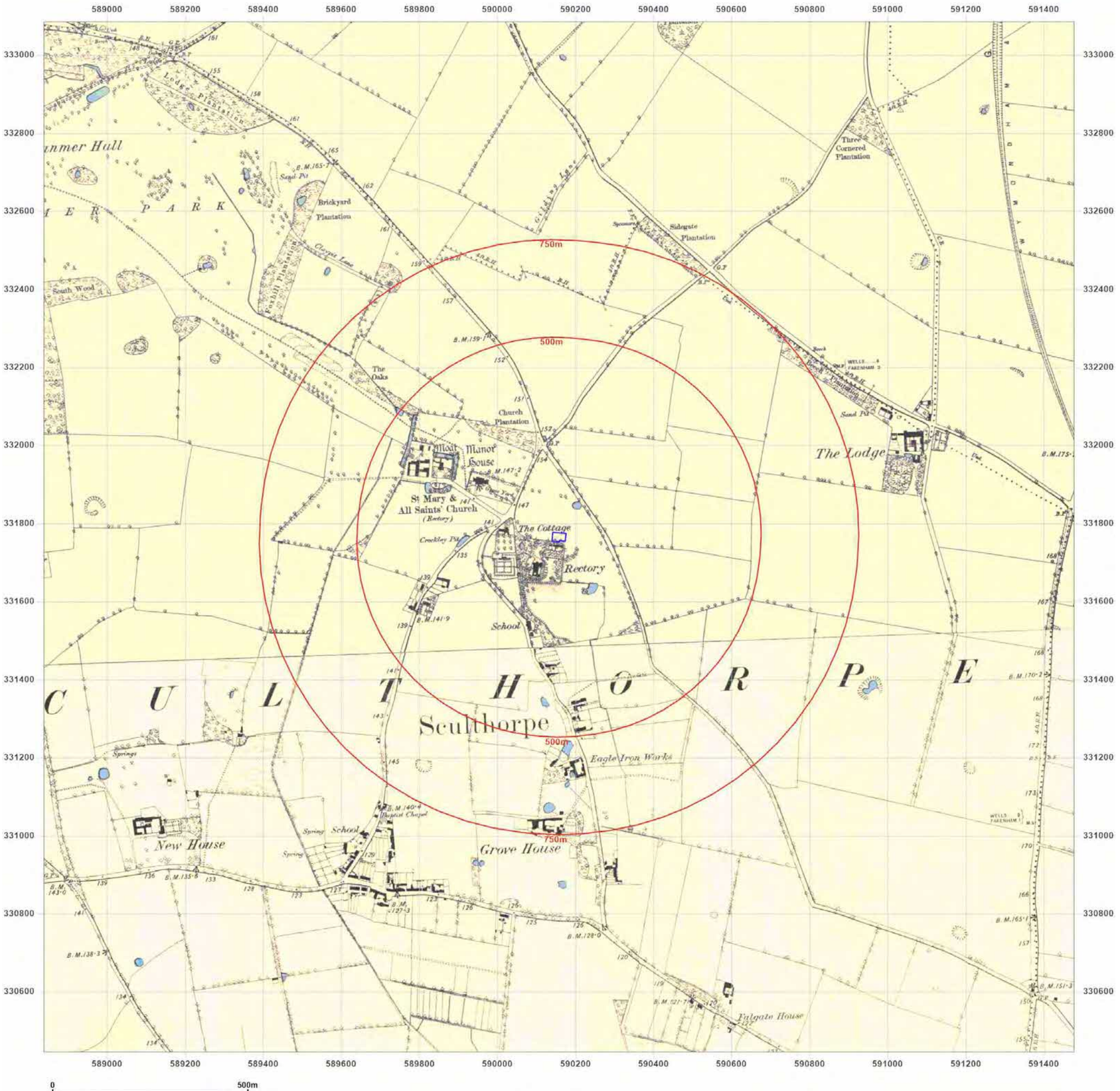

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: County Series

Map date: **1885-1886**

Scale: 1:10,560

Printed at: 1:10,560

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

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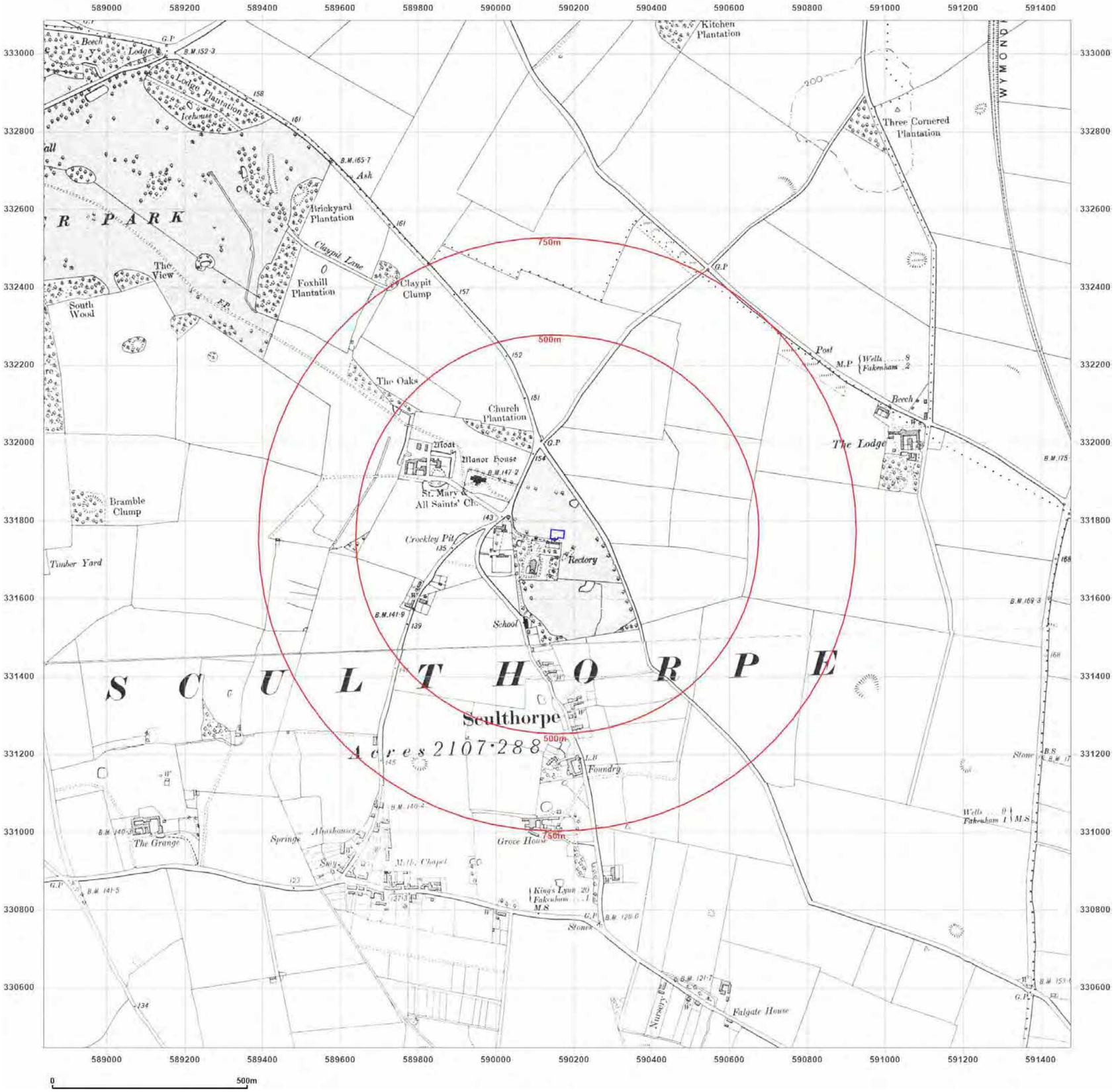

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: County Series

Map date: **1904**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1885
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1885
Revised 1904
Edition N/A
Copyright N/A
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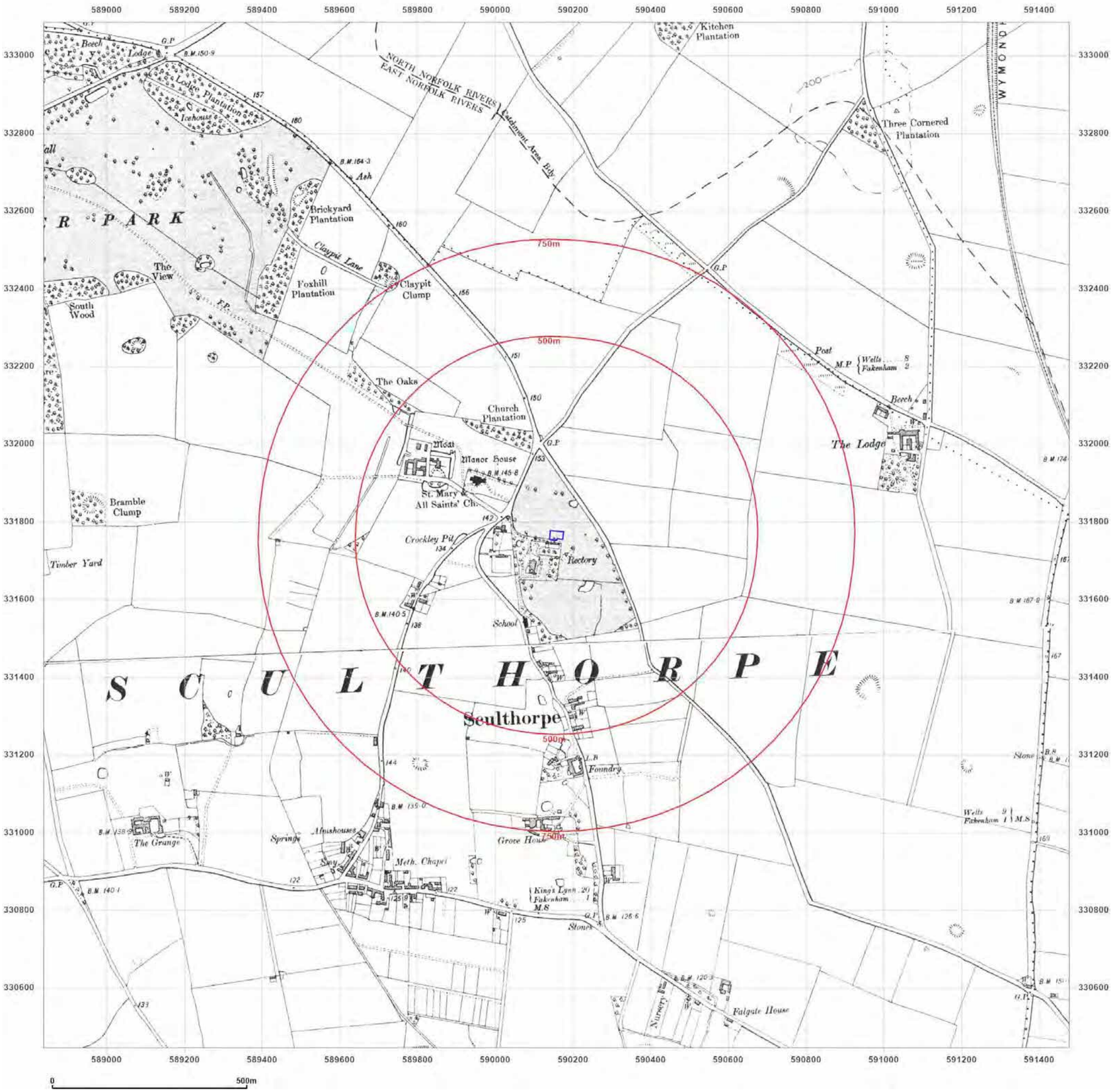

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Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: County Series

Map date: **1904-1906**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1885
Revised 1906
Edition 1906
Copyright N/A
Levelled N/A

Surveyed 1885
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

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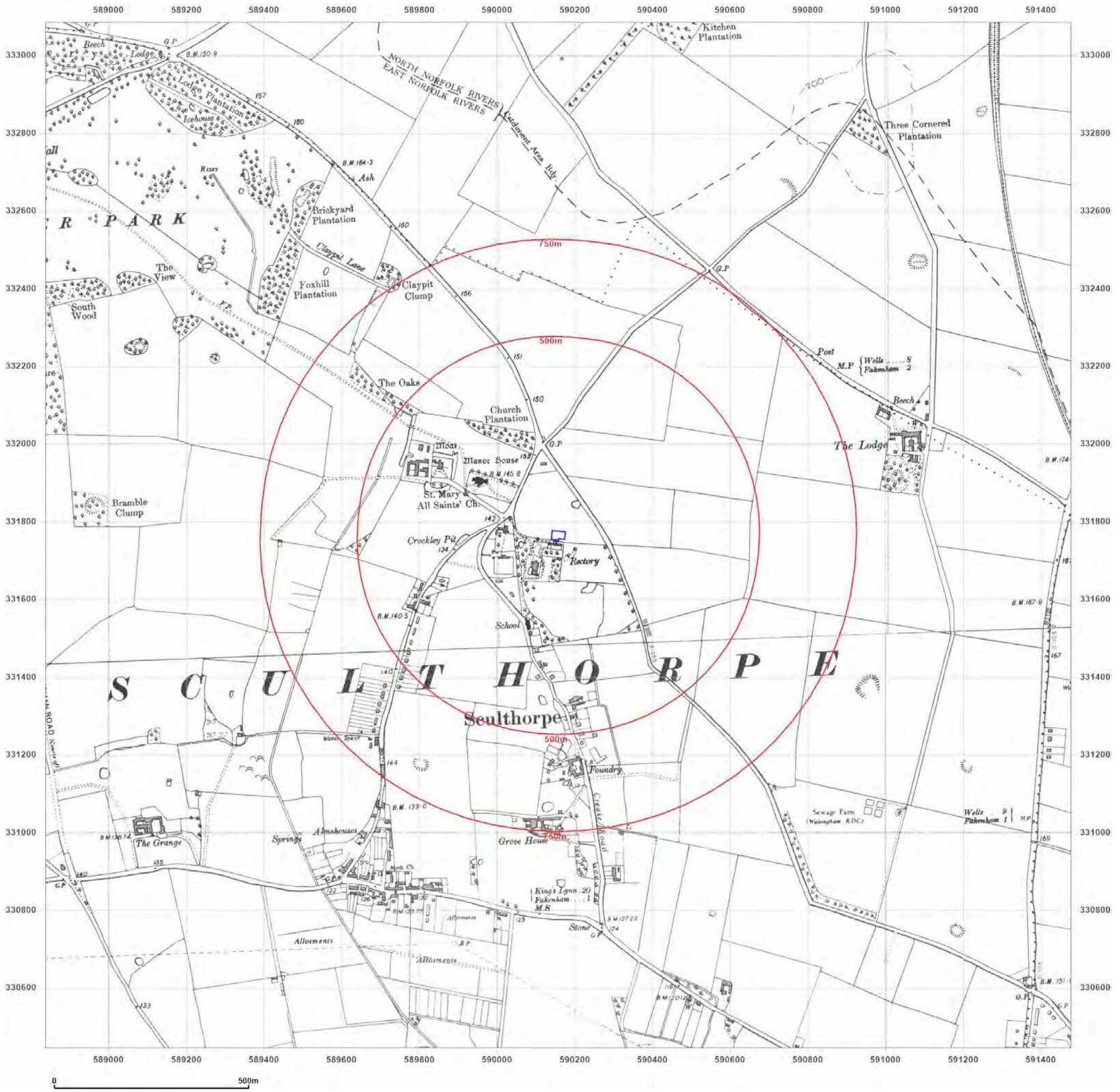

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Site Details

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Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: County Series

Map date: **1950**

Scale: 1:10,560

Printed at: 1:10,560

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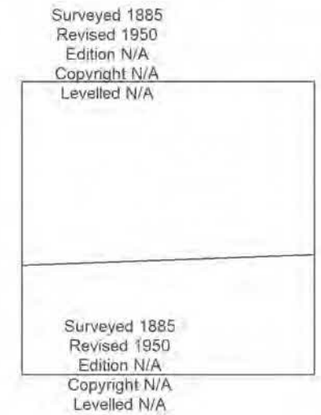

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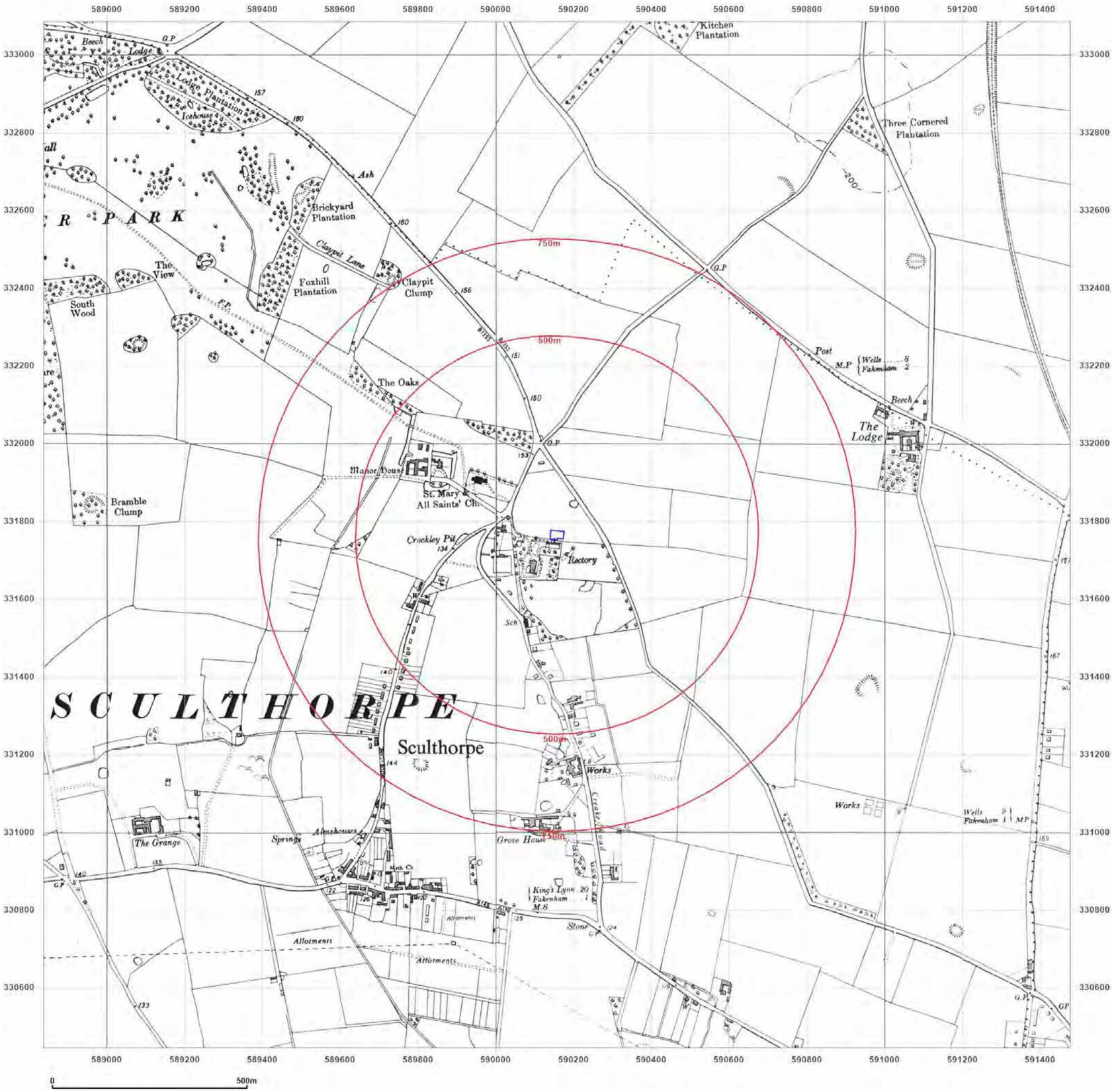

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: Provisional

Map date: **1958-1959**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed N/A
Revised 1958
Edition N/A
Copyright 1959
Levelled N/A

Surveyed 1950
Revised 1958
Edition N/A
Copyright N/A
Levelled N/A

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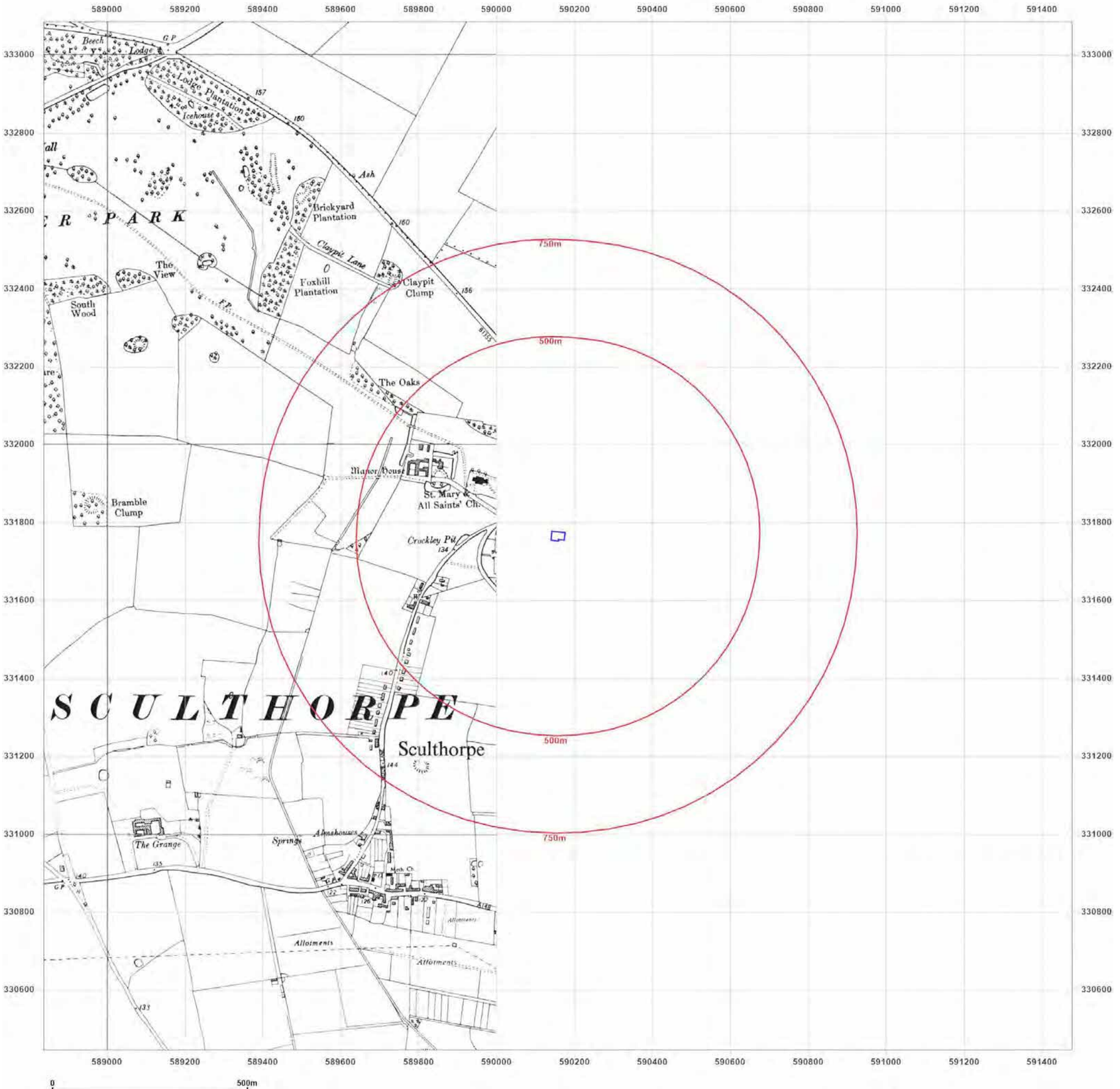

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: Provisional

Map date: **1964**

Scale: 1:10,560

Printed at: 1:10,560

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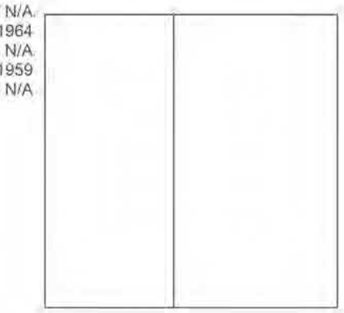
Surveyed N/A
Revised 1964
Edition N/A
Copyright 1959
Levelled N/A



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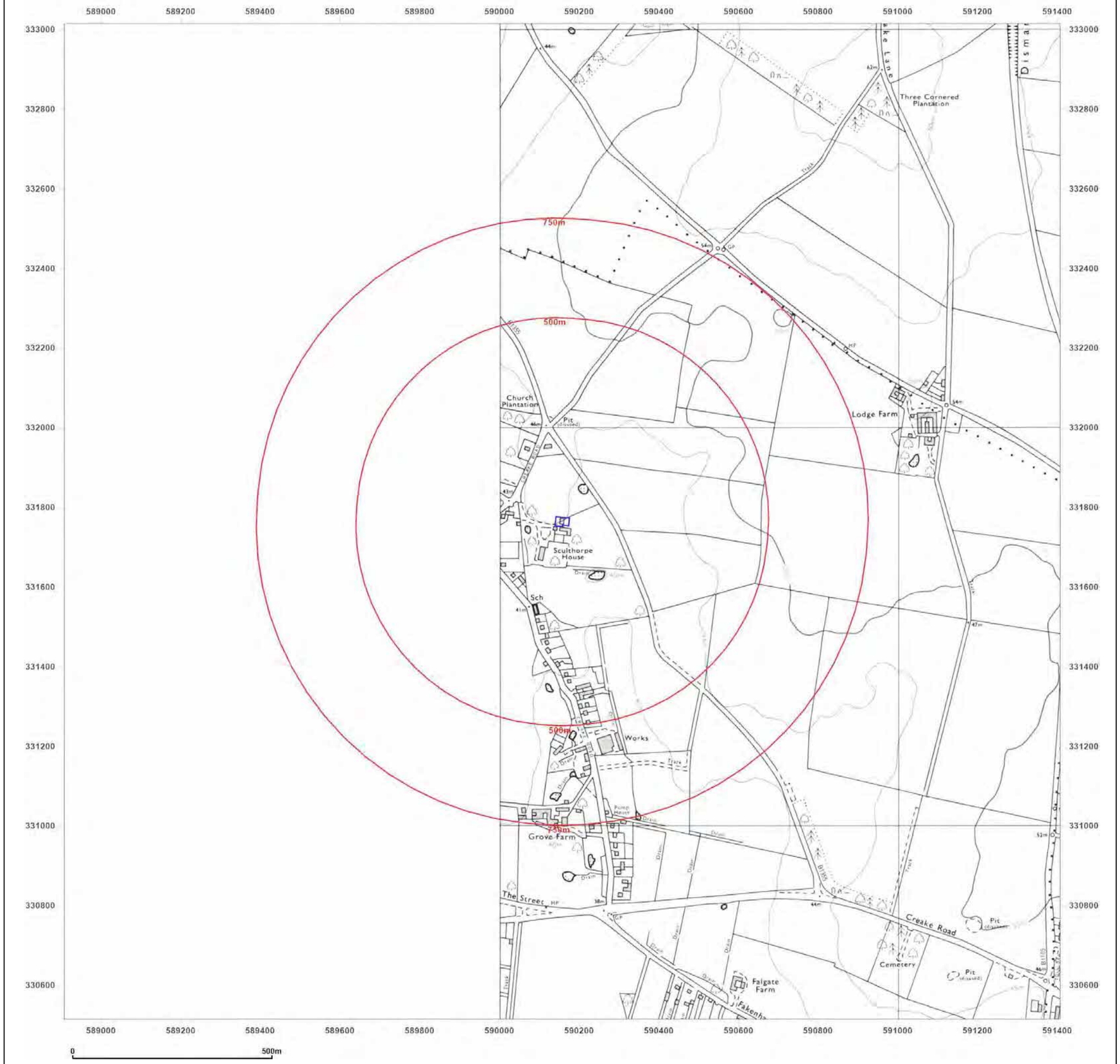

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid

Map date: **1974**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1971
Revised 1974
Edition N/A
Copyright 1974
Levelled 1973

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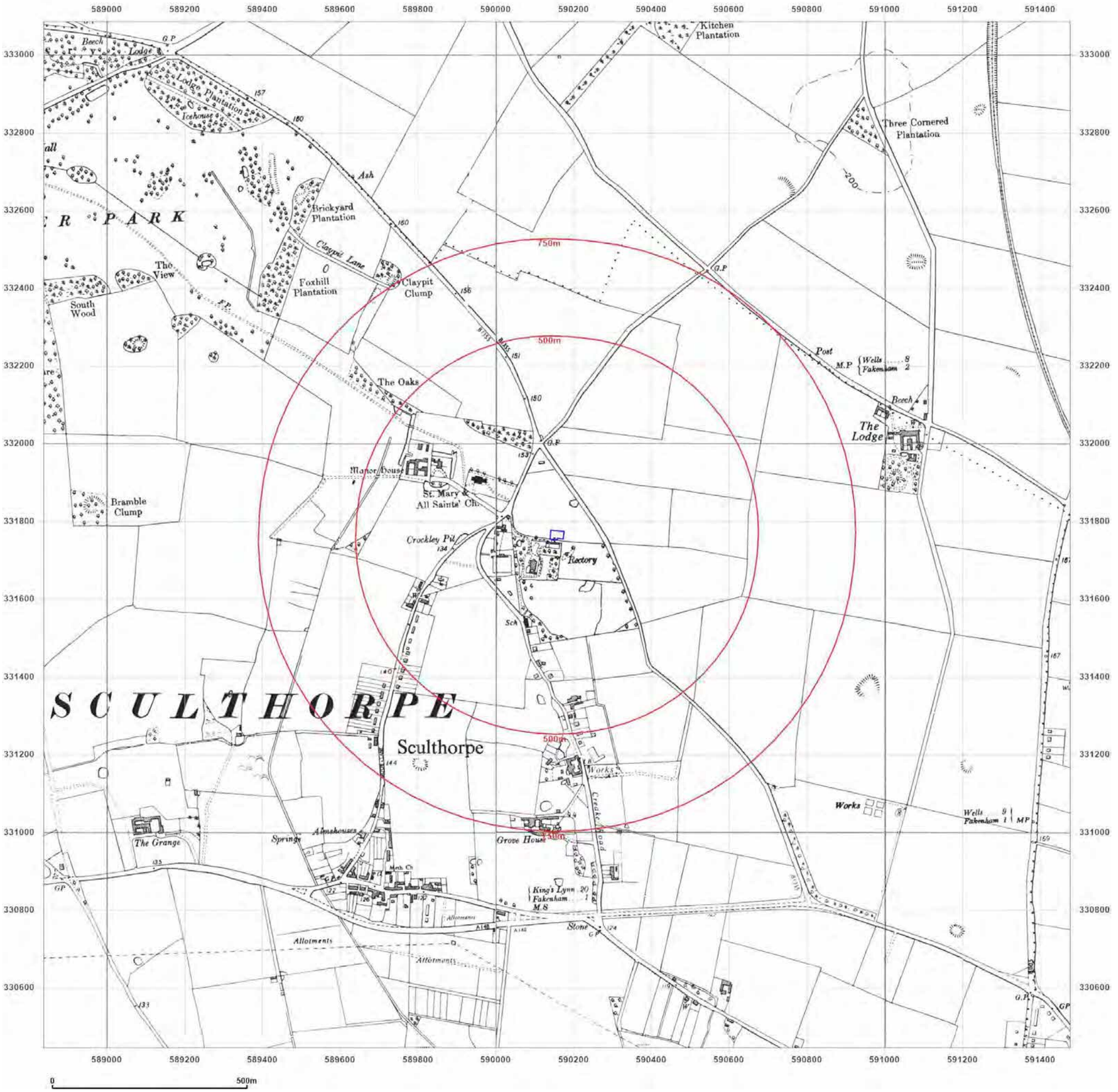

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: Provisional

Map date: **1972-1975**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed N/A
Revised 1975
Edition N/A
Copyright 1959
Levelled N/A

Surveyed 1950
Revised 1972
Edition N/A
Copyright N/A
Levelled N/A

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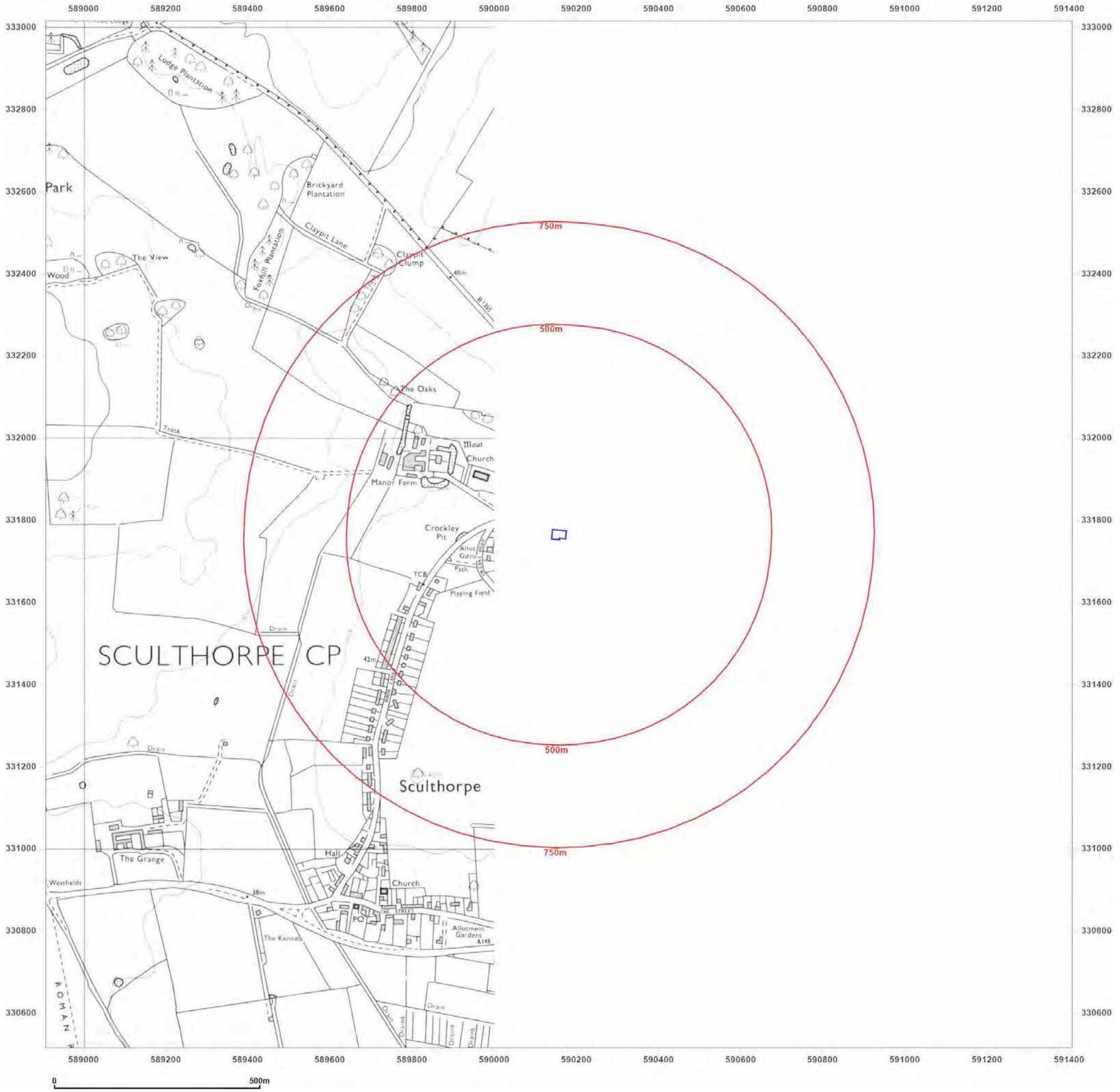

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid

Map date: **1982**

Scale: 1:10,000

Printed at: 1:10,000

N
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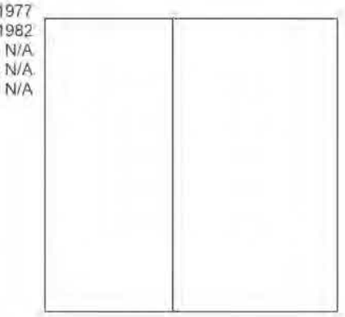
Surveyed 1977
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A



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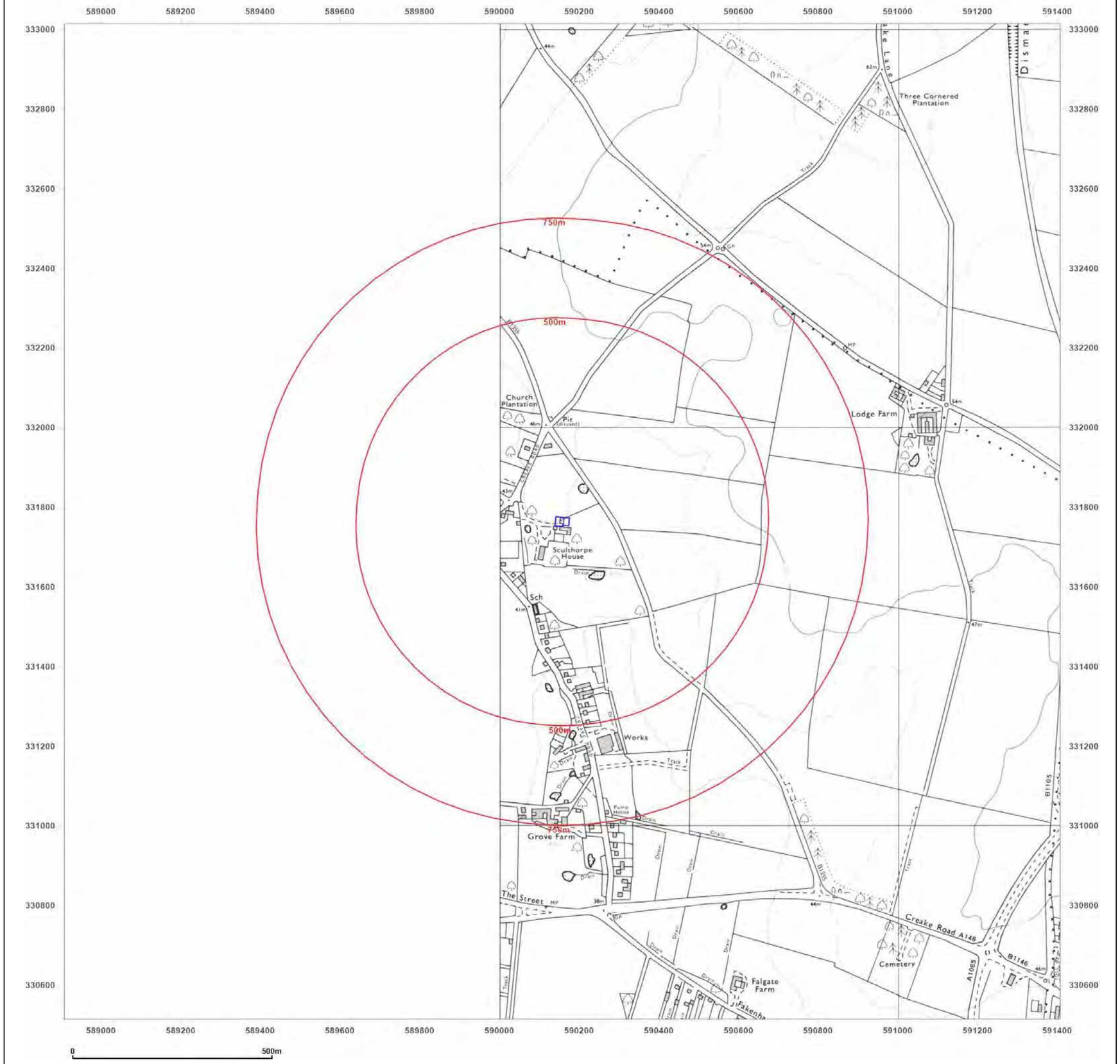
Production date: 08 September 2021

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



Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid

Map date: **1988**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1971
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

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Map legend available at:
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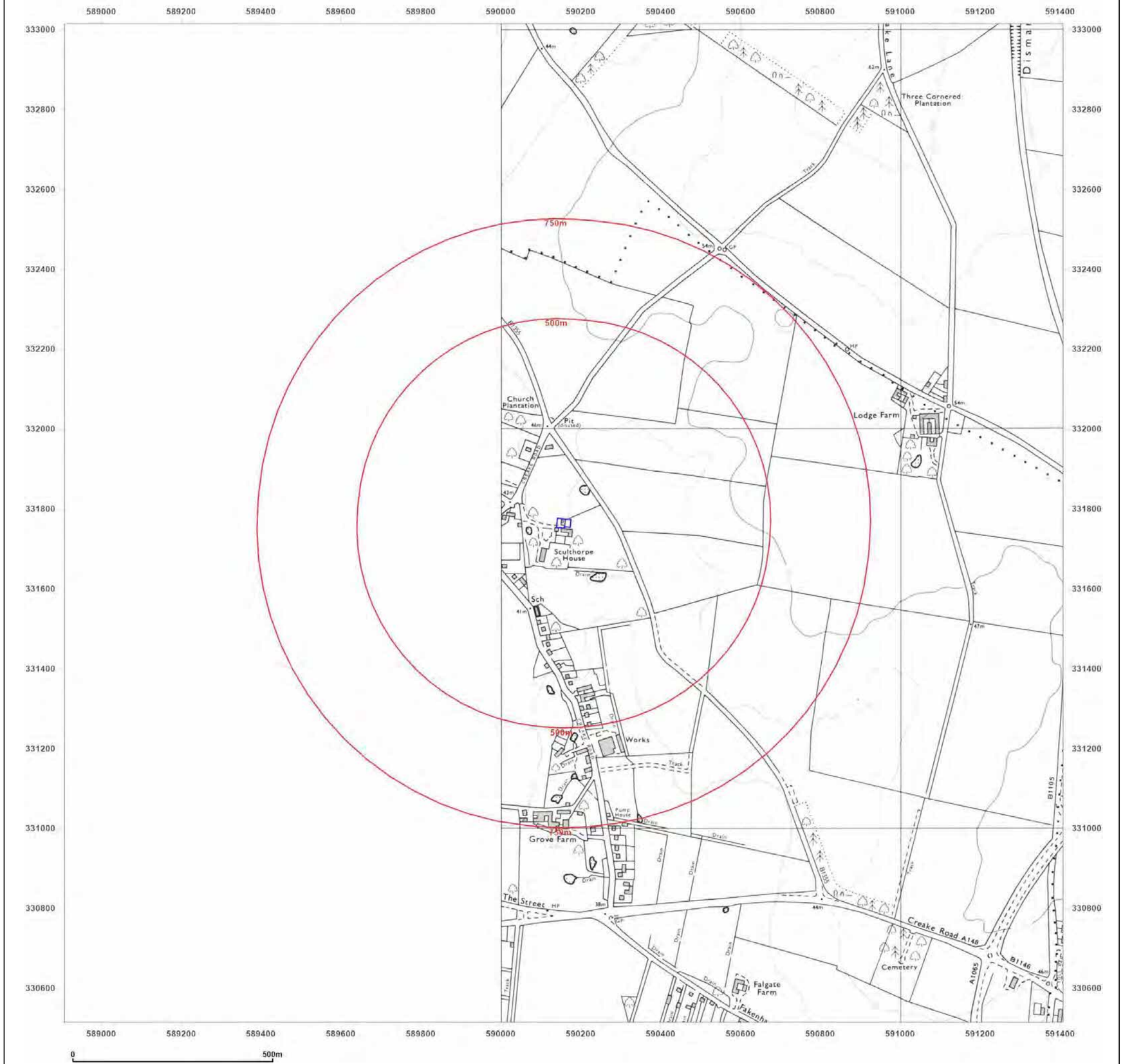

Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid

Map date: **1988**

Scale: 1:10,000

Printed at: 1:10,000

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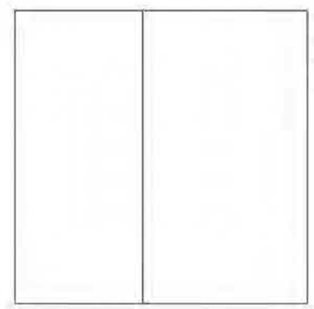

Surveyed 1971
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 08 September 2021

Map legend available at:
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Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid
Map date: **2001**
Scale: 1:10,000
Printed at: 1:10,000

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Production date: 08 September 2021

Map legend available at:
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Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

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

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Production date: 08 September 2021

Map legend available at:
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Groundsure INSIGHTS

Site Details

THE OLD RECTORY, CREAKE ROAD, SCULTHORPE, NR21 9NJ

Client Ref: TJS_21-288
Report Ref: GS-8177849
Grid Ref: 590157, 331765

Map Name: National Grid
Map date: **2021**
Scale: 1:10,000
Printed at: 1:10,000

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Powered by OS

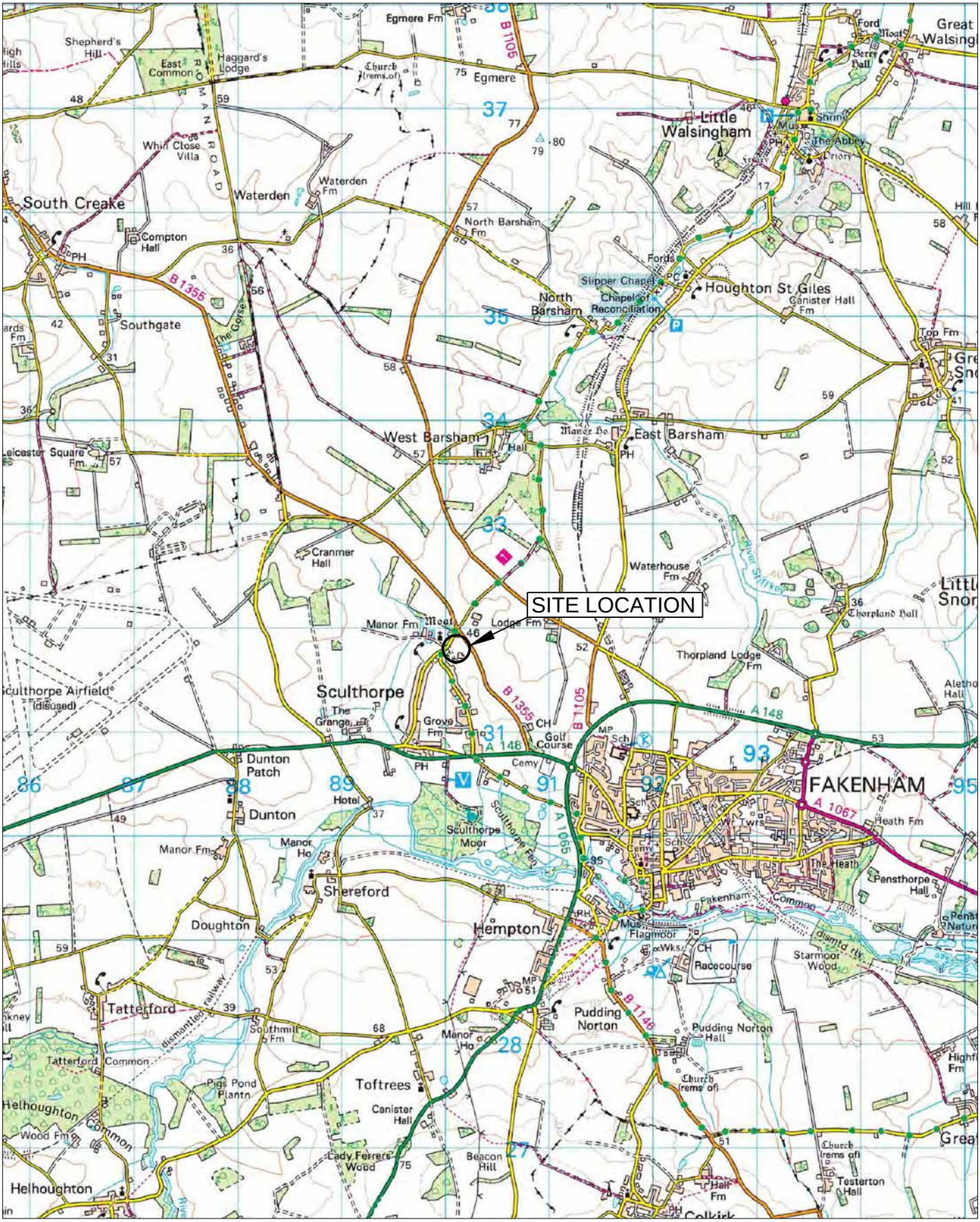
Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

Production date: 08 September 2021

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

APPENDIX D: DRAWINGS

Drawing 21.288/PhaseI/01	Site Location Plan
Drawing 21.288/PhaseI/02	Relevant Feature Plan



North

Circle indicates approximate location of site

Scale 1: 50,000 @ A4

A F Howland Associates
Geotechnical Engineers

Site: The Old Rectory, Creake Road, Sculthorpe

SITE LOCATION PLAN

Client : Damian Delahunty

Date : September 2021 **Dwg :** 21.288/Phasel/01

A F Howland Associates
Geotechnical Engineers

Drawing 21.277/PhaseI/02
Relevant Feature Plan

Photo 1

Photo 2

Photo 3

Photo 8

Photo 9

Photo 10

Photo 4

Photo 5

Photo 6

Photo 7

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Tel: 01603 250754
Website: www.howland.co.uk Email: admin@howland.co.uk

Client: Damian Delahunty
Site: The Old Rectory, Creake Road, Sculthorpe
Job No.: 21.288
Drawing title: Relevant Feature Plan
Drawing No.: 21.288/PhaseI/02
Date: September 2021

APPENDIX E: RISK ASSESSMENT CLASSIFICATION

Classification	Definition	Examples
High Likelihood	There is a pollution linkage and an event which would either appear very likely in the short term and almost inevitable over the long term, or, there is evidence at the receptor of harm or pollution.	Free product visible on surface of sensitive water body or in the soil. On site or adjacent gassing 'landfill site'.
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.	Potentially contaminative land use i.e. 'Brownfield' site, fuel storage depot, factory, petrol station etc. Sensitive receptors to be introduced as part of site redevelopment. Potentially infilled land identified on site or off-site with credible migration pathway.
Low Likelihood	There is a pollution linkage and circumstances are possible under which an event could occur. 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.	Potential source of contamination identified i.e. historical land use as allotments or domestic above ground fuel storage tanks, areas of burning garden waste. Possible off-site infilled land.
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.	No significant potential sources of contamination identified e.g. 'Greenfield' site. No potential sources of ground gas.

TABLE E1: CLASSIFICATION OF PROBABILITY

Classification	Definition	Examples
Severe	Short term (acute) risk to human health. Short term risk of pollution of sensitive water resource. Catastrophic damage to buildings/property. A short term risk to a particular ecosystem.	High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Credible source of ground gas.
Medium	Chronic damage to Human Health. Pollution of sensitive water resources. A significant change in a particular ecosystem, or organism forming part of such ecosystem.	Concentrations of a contaminant from site exceeds the generic, or site specific assessment criteria. Leaching of contaminants from a site to a Secondary or Principal aquifer or watercourse.
Mild	Pollution of non-sensitive water resources. Significant damage to buildings/structures and crops ("significant harm" as defined in the Circular on Contaminated Land, DETR, 2000). Damage to sensitive buildings/structures or the environment.	Concentrations of a contaminant do not exceed the generic, or site specific assessment criteria. Leaching of contaminants from a site to an Unproductive Aquifer. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as Personal Protective Equipment, etc).	The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme.

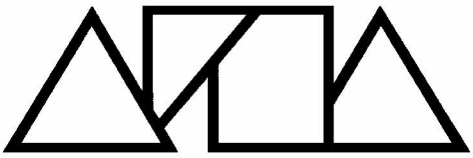
TABLE E2: CLASSIFICATION OF CONSEQUENCE

Classification	Definition
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 is occurring. The risk, if realised, is likely to result in a substantial liability. Urgent investigation and remediation will be required.
High Risk	Harm or chronic damage is likely to arise to a designated receptor from an identified hazard. Investigation is required and remediation is likely to be required to ensure the site is suitable for a proposed use.
Moderate Risk	It is possible that harm or chronic damage could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe. Investigation and remediation are likely to be required to ensure the site is suitable for a proposed use.
Low/Moderate Risk	It is possible that harm or chronic damage could arise to a designated receptor from an identified hazard. Investigation is likely to be required. However, circumstances are such that investigation may prove the consequence to be mild and the site suitable for use without remediation.
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 be mild. Investigation is unlikely to be required.
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. Investigation is not required.

TABLE E3: DESCRIPTION OF RISK

		CONSEQUENCE			
		Severe	Medium	Mild	Minor
PROBABILITY	High likelihood	Very High	High	Moderate	Low/Moderate
	Likely	High	Moderate	Low/Moderate	Low
	Low likelihood	Moderate	Low/Moderate	Low	Very Low
	Unlikely	Low/Moderate	Low	Very Low	Very Low

TABLE E4: DETERMINATION OF RISK



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