Ground and Environmental Investigation Limited

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Land at Ashgrove Road Sevenoaks

Phase 1 Contamination Risk Assessment

On behalf of Odyssey Markides LLP

Document Reference: 22-212 April 2022

Site: Land at Ashgrove Road, Sevenoaks

Document Reference No: 22-212

Quality Management

Authorised by:	 Marc Pearson - Director
Date	April 2022
Revision	0
Contact	Marc Pearson (marc@groundenvironmental.com)

Ground and Environmental Investigation Ltd is a specialist geo-environmental consultancy and ground investigation company operating nationally.

Our approach to all of projects is to provide our clients with cost-effective solution to potential geo-environmental hazards, essential considerations before site acquisition, or prior to final development scheme design.

We offer a full range of geo-environmental services from initial due diligence site assessments through to engineering and ground remediation design.

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Appendices

1 INTRODUCTION

Ground and Environmental Investigation Ltd (GEI) was commissioned by Odyssey Markides LLP to undertake a Phase 1 Risk Assessment on land at Ashgrove Road, Sevenoaks.

It was understood that the development of the site is proposed to comprise a residential development with associated private gardens, communal soft landscaped areas and access roads.

The purpose of the Phase 1 Contamination Risk Assessment is to provide a preliminary risk assessment identifying any potential contamination arising from the site's former and current use, and any risks which may arise from such contamination. In addition, a conceptual model of the site will show the relationship between any sources of contamination, potential receptors, and the pathways for any contamination on site.

2 SITE LOCATION AND LAYOUT

The site is situated to the west of Ashgrove Road, approximately 500km east of the A21 and 2km south of Sevenoaks Train Station in a mixed agricultural and residential setting. The site is located at approximate Grid Reference TQ 5121 534 and occupies an area of approximately 2.3 hectares.

The following features surround the site:

- To the north, residential properties along Ashgrove Road and Oak Lane;
- To the west, the site is bound by Oak Lane beyond which is agricultural land;
- To the east, the is bound by Ashgrove Road beyond which are residential properties;
- To the south, the is bound by land currently used for the grazing of sheep.

A walkover of the site was undertaken on the 22nd April 2022. At the time of the walkover, the site comprised rough pasture grassland with boundaries of mature trees and hedging and used for the grazing of sheep. A pond was noted in the north-eastern area of the site.






No visual or olfactory signs of contamination were noted across the site. Healthy vegetation was growing and did not show any sign of phytotoxic stress.

3 SITE HISTORY

A map search was carried out for the site and extracts of the following Ordnance Survey maps were obtained covering the period between 1869 and 2022.

These are presented in Appendix 1 and the relevant historic details are summarised as follows:

Mapping Date Range	On Site	Surrounding Area
1869 - 1870	The site appears to be part of a larger field and likely in agricultural production. A pond is mapped on the site.	The surrounding area is predominantly given over to agricultural land and woodland. Unnamed roads are mapped in the present locations of Ashgrove Road and Oak Lane. The outskirts of Sevenoaks are located approximately 800m to the northeast. Sparse private residences are located within 750m. A 'Pesthouse' is mapped approximately 100m to the south. A small sandpit is mapped approximately 10m to the southwest.
1895 – 1896	No significant development is noted on site.	The Pesthouse is now noted to be a Hospital for Infectious Diseases. Small scale residential development has occurred approximately 50m to the north. An old quarry is mapped approximately 500m south.

Mapping Date Range	On Site	Surrounding Area
1907 – 1909		
1936 - 1938		Residential development has occurred approximately 25m to the north. Cross keys House adjacent to the Ashgrove Road to the northeast appears to be under construction.
1955 - 1960		Residential development has occurred adjacent to the northern site boundary and adjacent to the Ashgrove Road to the east.
1971 – 1978		No significant development is noted.
2001 - 2003		
2010		
2022		

Aerial photography from 1999 to 2021 does not indicate any further significant development across the site area or in the vicinity.

4 PLANNING HISTORY

A review was undertaken of the Sevenoaks District Council planning database on the 23rd April 2022 as part of the review of the site history.

No additional potentially contaminative activities or other information pertinent to this assessment were identified from the historical planning records.

5 ENVIRONMENTAL SETTING

5.1 GEOLOGY

Reference to the British Geological Survey online geological map of the area indicates that the geology underlying the site comprises solid geology of the Lower Greensand Group. The solid geology is further divided into the Folkestone Formation to the western extent of the site area, the Sandgate Formation to the centre of the site and the Hythe Formation to the east of the area.

No superficial deposits are noted across the site.

The geological memoir for the area described these strata as follows:

Lower Greensand Group

Mainly sands and sandstones (varying from well-sorted fine-grained to poorly sorted medium- to coarse-grained) with silts and clays in some intervals.

Folkestone Formation

In Sussex, Kent and Surrey the formation comprises medium- and coarse-grained, well-sorted cross-bedded sands and weakly cemented sandstones; elsewhere includes calcareous sandstones. There are no formal divisions in the Weald, but equivalent beds in the west are termed the Child Okeford Sand Member and the Bedchester Sands Member.

Sandgate Formation

Fine sands, silts and silty clays, commonly glauconitic; some sands limonitic or calcareous; some soft sandstones.

Hythe Formation

In the western Weald, the formation comprises mainly fine- to medium-grained, sparsely glauconitic sands, sandstones and silts, locally pebbly, with calcareous or siliceous cement in beds or lenses in some areas. Some clay interbeds, including Fuller's Earth. In Kent and eastern Sussex the formation comprises, alternating sandy limestones ("Ragstone") and glauconitic sandy mudstones (Hassock).

5.2 GROUNDWATER

Reference to the British Geological Survey 1:50,000 scale Aquifer Designation Dataset, shows the site to be set upon Principal and Secondary A Aquifers.

Principal Aquifers are highly permeable formations. They are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.

Secondary Aquifers include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage. Secondary aquifers are subdivided into two types

Secondary A - are also permeable layers capable of supporting water supplies at a local scale, and may be an important source of base flow to rivers. These include a wide range of rock layers or drift deposits with an equally wide range of water permeability and storage.

Secondary B –tend to be lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

Secondary Undifferentiated – are not attributed either category A or B status. Generally these layers were previously designated as both minor and non-aquifer dependant on local geology.

The northeastern extent of site is situated within an Environment Agency-designated Groundwater Source Protection Zone 2 (Outer Catchment) with the remaining site area being classified as a Source Protection Zone 3 (Total Catchment).

5.3 RADON

Reference to the National Radiological Protection Board's "Radon Atlas of England and Wales" indicated that the property is not situated within a Radon Affected Area (less than 1% of homes are estimated to be at or above the Action Level of 200 Bq/m³). No radon protective measures are necessary in the construction of new dwellings or extensions.

5.4 OTHER ENVIRONMENTAL INFORMATION

Reference was made to the Groundsure environmental database, extracts from which are provided in Appendix 2. Relevant information relating to the sites environmental sensitivity is summarised as follows:

Dataset		On site	Nearest significant off-site feature
Past Land Use	Historical industrial land uses	None	100m south. Hospital.
	Historical energy features	None	212m north. Electricity Transformer.
	Historical Tanks	None	103m north. Unspecified Tank.
Industrial Land Use	Recent industrial land uses	None	228m north. Electricity Sub Station.
Geological	Potential for Collapsible Ground Stability Hazards	Very low	
	Potential for Compressible Ground Stability Hazards	Negligible	
	Potential for Ground Dissolution Stability Hazards	Negligible	
	Potential for Landslide Ground Stability Hazards	Very low	

Dataset		On site	Nearest significant off-site feature
	Potential for Running Sand Ground Stability Hazards	Low	
	Potential for Shrinking or Swelling Clay Ground Stability Hazards	Negligible	
	Artificial and Made Ground	None	None within 500m.
Mining, ground workings and natural cavities	BritPits	None	265m south. Dransfield Farm, Limestone.
	Surface Ground Workings	None	126m east. Unspecified Ground Workings.
	Underground Workings	None	639m east. Air shaft.
Sensitive Land Use	Sites of Special Scientific Interest (SSSI)	None	1070m east. Knole Park.
	Area of Outstanding Natural Beauty	Kent Downs	
	Designated Ancient Woodland	None	128m southeast. Sevenoaks Common, ancient and semi-natural woodland.
	Listed Buildings	None	129m north. Cross Keys Cottage, Grade II.
Hydrology and Hydrogeology	Surface Water Abstractions	None	1939m southwest. Spray Irrigation – Direct.
	Groundwater Abstractions	None	902m northeast. Potable Water Supply – Direct.
	Potable Abstractions	None	902m northeast. Potable Water Supply – Direct.
	Source Protection Zones	SPZ 2 and 3	
	Water Network (OS MasterMap)	None	None within 250m.
	Surface Water Flood Risk	Negligible	
	Groundwater Flood Risk	Negligible	

6 CONTAMINATION RISK ASSESSMENT

This risk assessment has been undertaken with due regard to the advice relating to groundwater as provided in the Environment Agency's "Methodology for the Derivation of Remedial Targets for Soil and Groundwater to Protect Water Resources", the advice provided in the Contaminated Land (England) Regulations 2000, and the associated statutory guidance. The guidance defines contaminated land as any land that is in such a condition that by reason of substances in, on or under the land:

- significant harm is being caused or there is a significant possibility of such harm being caused; or

- pollution of controlled water is being or is likely to be caused.

This definition is based on the principles of risk assessment defined as a combination of the probability (or frequency) of occurrence of a defined hazard and the magnitude (including the seriousness) of the consequences. Central to the risk assessment process is the concept of pollutant linkage, that is a linkage between a contaminant and a receptor by means of a pathway.

Statutory definitions relating to pollution linkage.	
Contaminant	"a substance which is in, on or under the land and which has the potential to cause harm or to cause pollution of controlled waters."
Receptor	"a living organism, a group of living organisms, and ecological system or a piece of property" which meets given criteria. "controlled waters which are, or could be, polluted by a contaminant".
Pathway	"one or more routes or means by, or through, which a receptor: • is being exposed to, or affected by, a contaminant, or • could be so exposed or affected".

The relationship between these components is discussed below in order to identify the existence of any source-pathway-receptor linkage on the site, and hence the potential risks associated with any contamination. This risk assessment is based on the residential development with plant uptake.

The significance of the risks to the receptors/targets identified is based on an evaluation of the potential pathways between the contaminant source and receptors based on a residential with plant uptake end use of the site.

Potential receptors/targets at the site and in the area in which the site is located include:

- future users and the public;
- construction/maintenance workers;
- groundwater resources; and
- underground services in and around the site.

6.1 CONTAMINANT SOURCES

The site was noted as being in agricultural use since the earliest available mapping (1869) and has remained undeveloped.

The surrounding land use is not considered likely to have caused significant contamination at the site.

No potential sources of significant contamination were noted on site.

6.2 RISK TO HUMAN HEALTH

Potential sources of significant concentrations of toxic metals or organic contamination were not identified during the historical map survey, data review or walkover of the site. Therefore, the risks to human health from these contaminants is considered to be low.

As such it is considered that the soils on site would be unlikely to pose a risk of significant harm to human health.

6.3 RISKS TO WATER RESOURCES

The site is underlain by a Principal and Secondary A Aquifer with respect to the solid geology. The site is not located within a Source Protection Zone 2 in the northeastern corner with the remainder of the site within a Source Protection Zone 3.

Due to the absence of any clear onsite contamination sources the risk to water resources is considered very low.

6.4 RISKS TO PLANTS

Potential sources of significant concentrations of phytotoxic metals were not identified during the historical map survey, data review or walkover of the site. As such the risk to plants is very low and further investigation is deemed unnecessary.

6.5 RISKS TO BUILDINGS & SERVICES

Given the absence of significant sources of ground contamination it is considered that the risks to proposed buildings and services are very low. This assumption is made based

upon the absence of any clear onsite contamination with regard to both the walkover survey, environmental data review and the historical maps.

7 PRELIMINARY CONCEPTUAL SITE MODEL

A Preliminary Conceptual Site Model (PCSM) is a system diagram identifying contaminant sources, routes of exposure (pathways), and which receptors are affected by contaminants moving along those pathways.

The model is produced to identify the zones of the site with different potential contaminations characteristics (e.g. whether contaminants in the soil are likely to be on the surface or at depth, distributed over an entire area or in localised 'hot spots').

The PCSM presented in the table below is based on the findings of the desk study and site walkover.

Source	Pollutant	Pathway	Hazard	Receptor	Observations/ Recommendations	Assessed Risk
Contaminated ground	Metals (i.e. arsenic, copper, cobalt lead), and organic compounds.	Direct contact, ingestion, and inhalation.	Health risks including skin irritation.	Humans: site workers and future occupants.	No potential sources of significant contamination identified historically or during the site walkover	Low
		Ingestion.	Consumption of homegrown produce.	Humans – future site users.		Low
		Uptake by plants.	Phytotoxic effects.	Soft landscaped areas / plants.	No potential sources of contamination identified on site.	Low
		Surface run off from hardstanding areas.	Lateral movement to surface watercourses.	Aquatic resources, ecology and subsequent users including humans.	No sources of mobile contamination observed at surface.	Low
		Leaching/ Dispersion.	Downward migration to groundwater.	Aquatic resources – Groundwater abstractions wells / surface waters.	No sources of mobile contamination observed at surface.	Low
		Direct contact	Aggressive chemical attack	Building structures and services	No potential sources of contamination identified on site.	Low
Liquid contaminant sources	Diesel, Petrol and Oils. .	Direct contact; ingestion, inhalation.	Health risks including skin irritation. Lateral and vertical migration of contaminants.	Humans: site workers and future occupants. Groundwater and surface water.	No potential sources of contamination identified on site.	Low
Landfill, Made ground	Ground gases (CO_2, CH_4)	Inhalation and ingress into buildings	Asphyxiation and explosions	Buildings/ humans/ future site users	No potential sources of contamination identified on site.	Low

8 CONCLUSIONS AND RECOMMENDATIONS

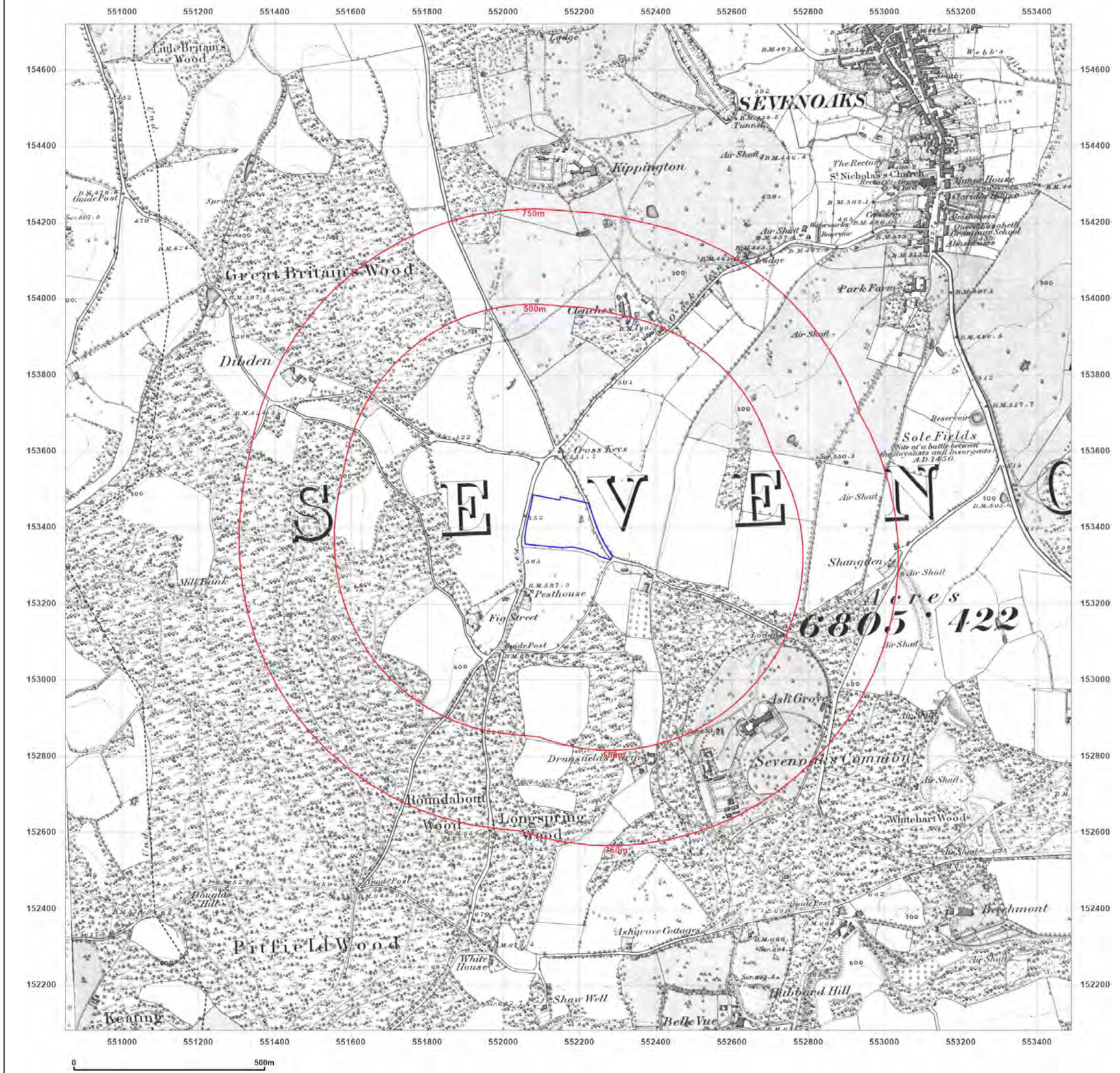
Ground and Environmental Investigation Ltd undertook a Phase 1 Contamination Risk Assessment on land at Ashgrove Road, Sevenoaks. The purpose of the Contamination Risk Assessment was to provide a preliminary assessment of contamination issues based on current Contaminated Land Legislation.

- At the time of this report, the site comprised rough pastureland with mature trees and hedgerow boundaries in use as grazing land.
- The geology underlying the site comprises solid geology of the Lower Greensand Group.
- The site is underlain by a Principal and Secondary A Aquifer. The north eastern extent of the site is located within an Environment Agency-designated Groundwater Source Protection Zone 2 and the remaining site area within a Source Protection Zone 3.
- No visual evidence of significant ground contamination was identified during the historical map search, environmental data review or present on site.
- The risks to human health, water resources, plants, and buildings and services are considered to be low in the absence of any identifiable sources of ground contamination.

Based on the principles and definitions outlined under section 57 of the Environment Act 1995, the site would not be considered “Contaminated Land” based on a residential end use with plant uptake.

APPENDIX 1

HISTORICAL MAPS



Groundsure INSIGHTS

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Report Ref: GS-8692946
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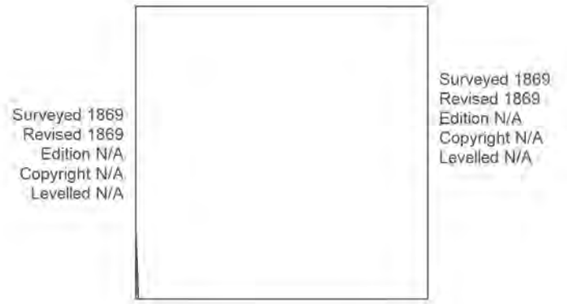

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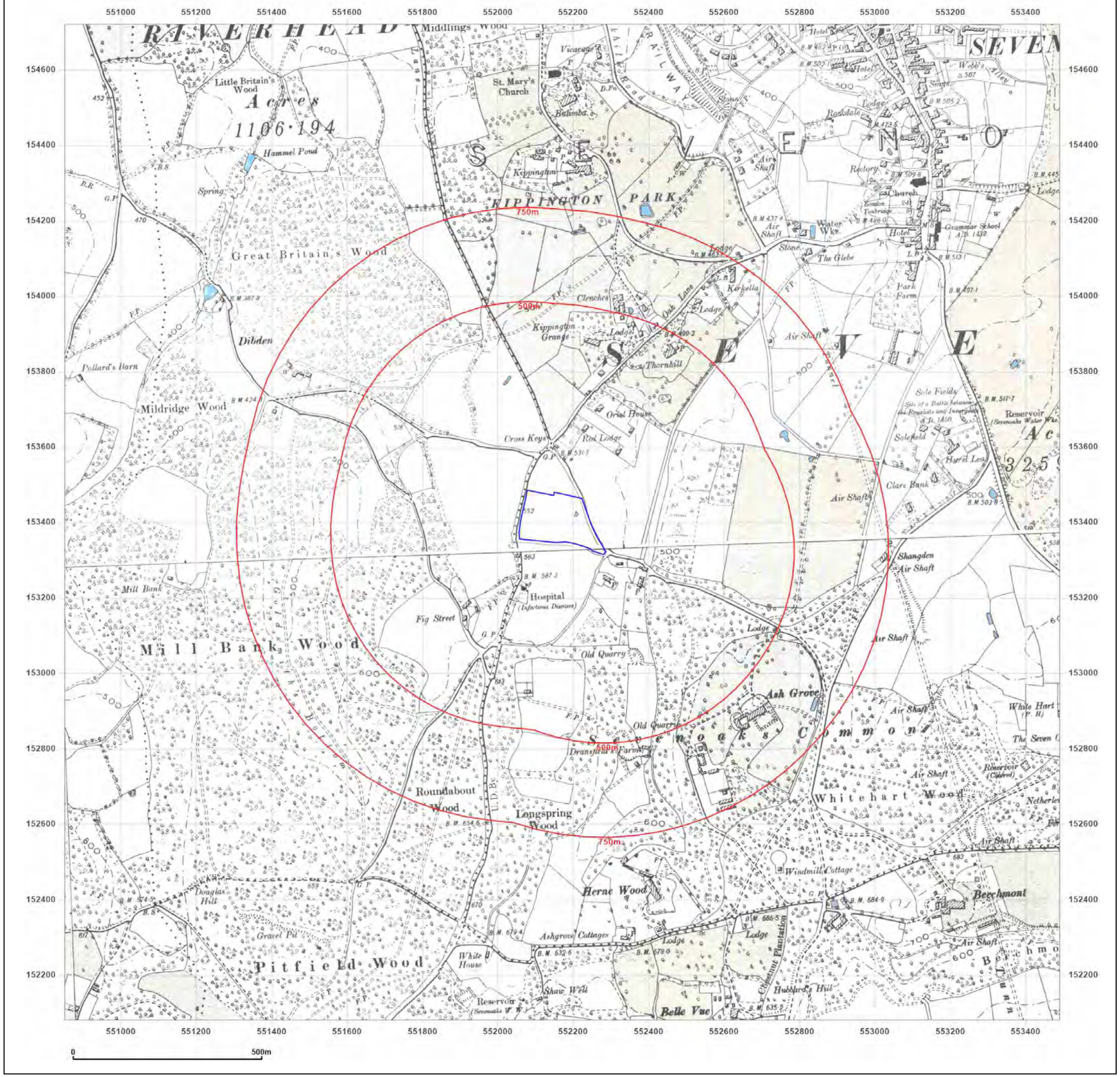

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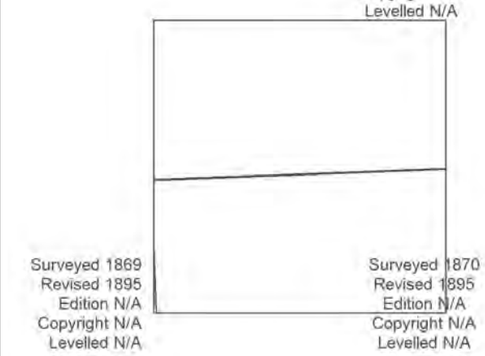

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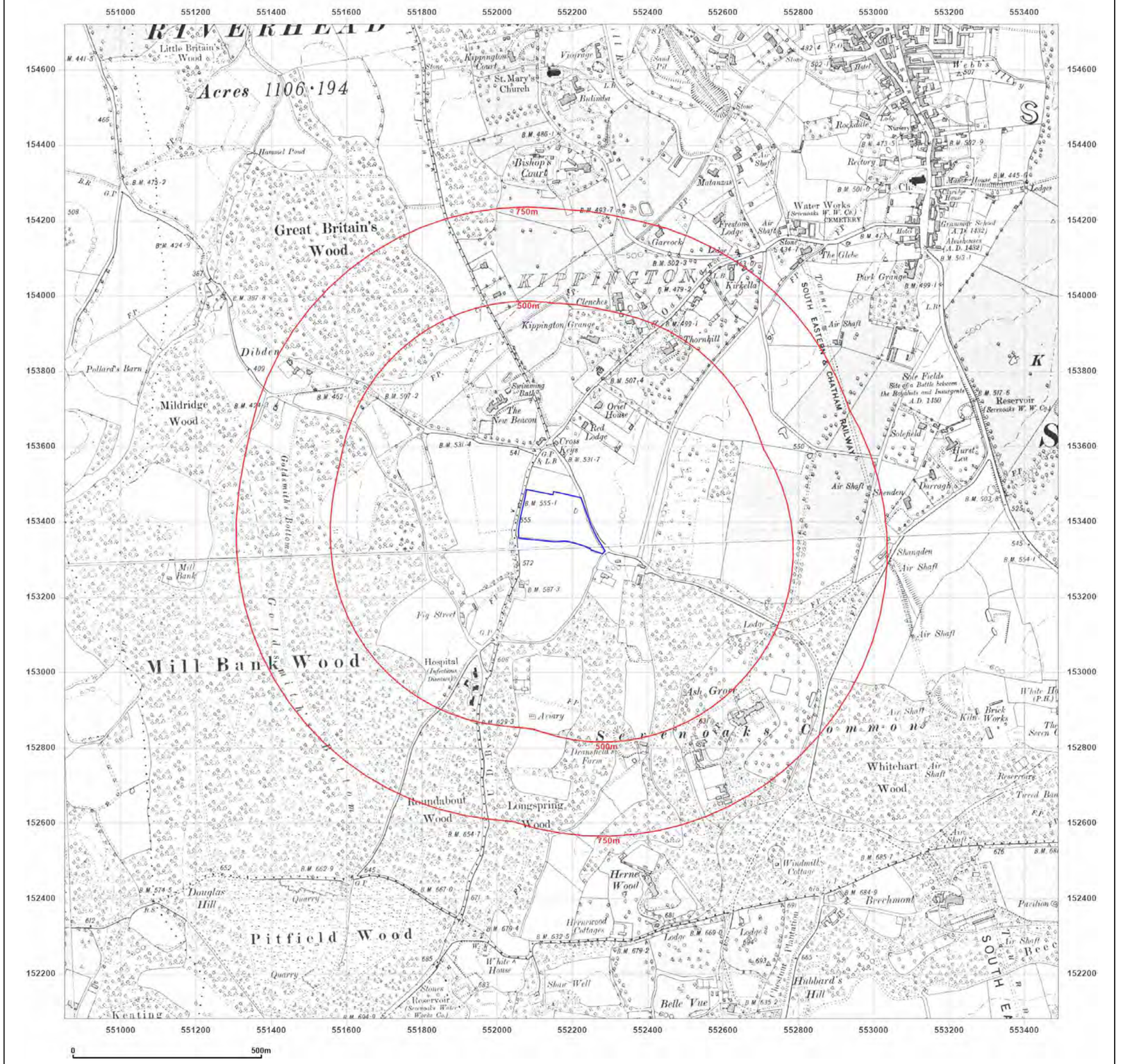

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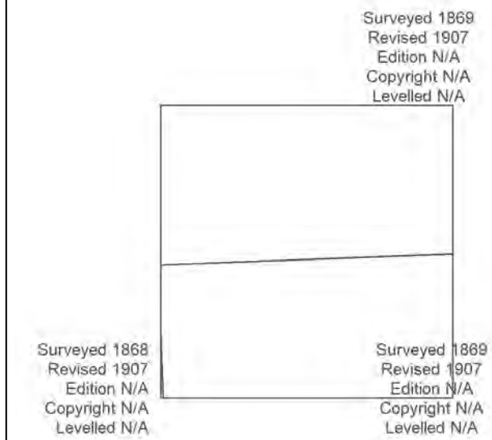

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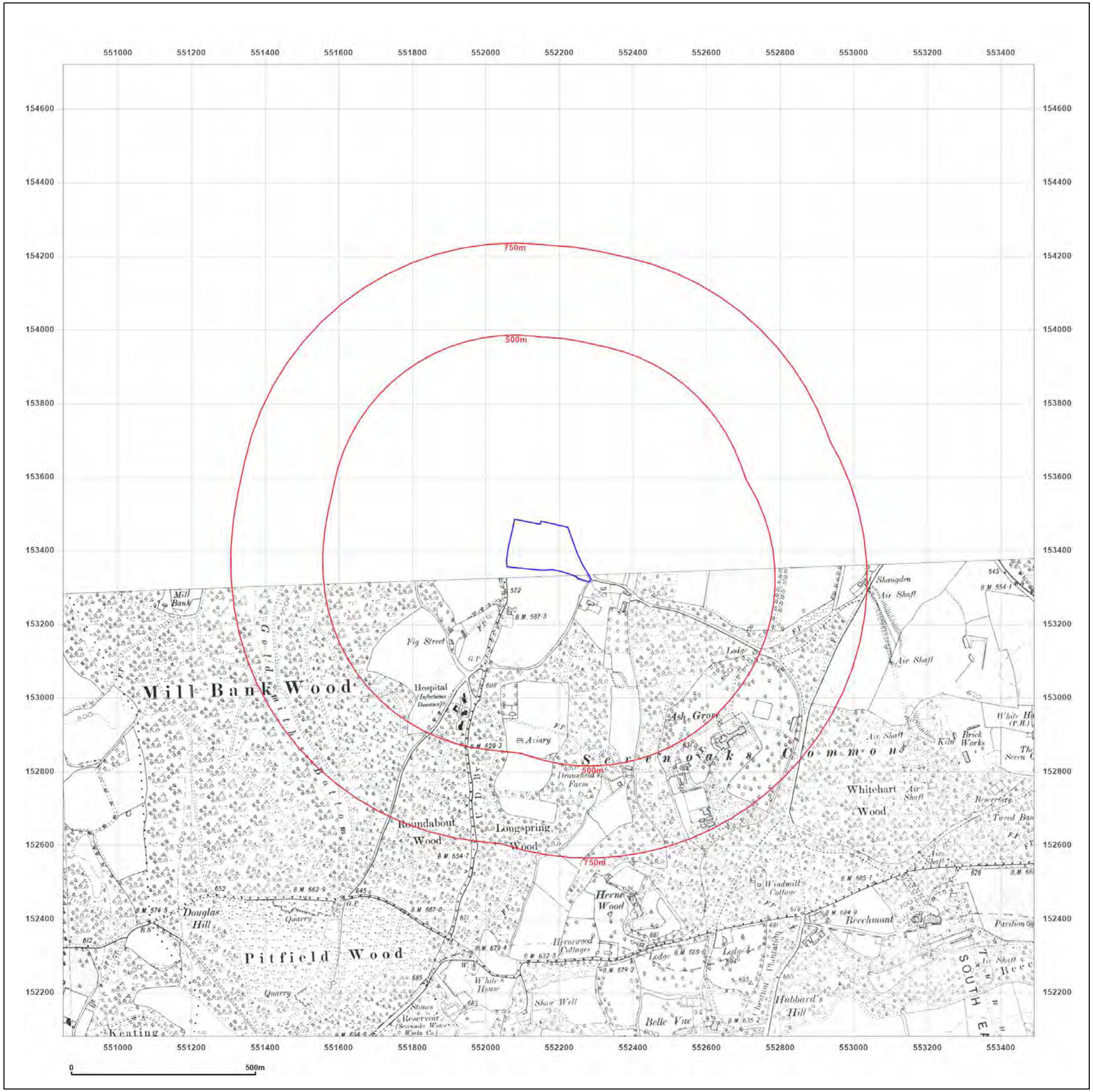

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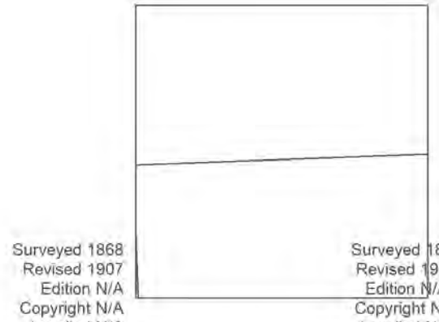

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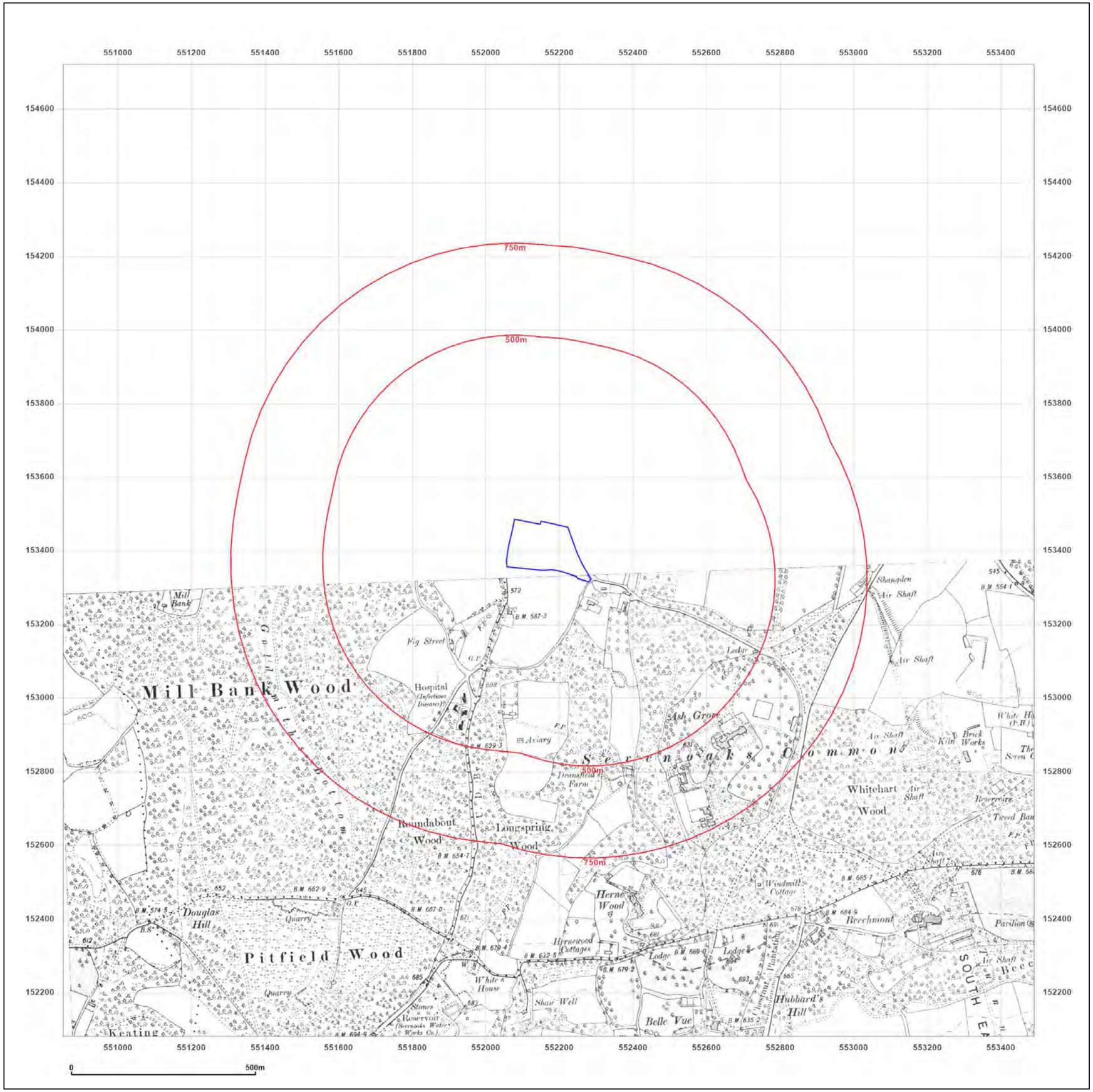

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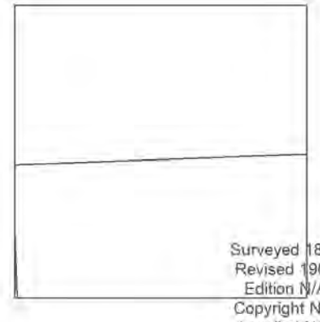

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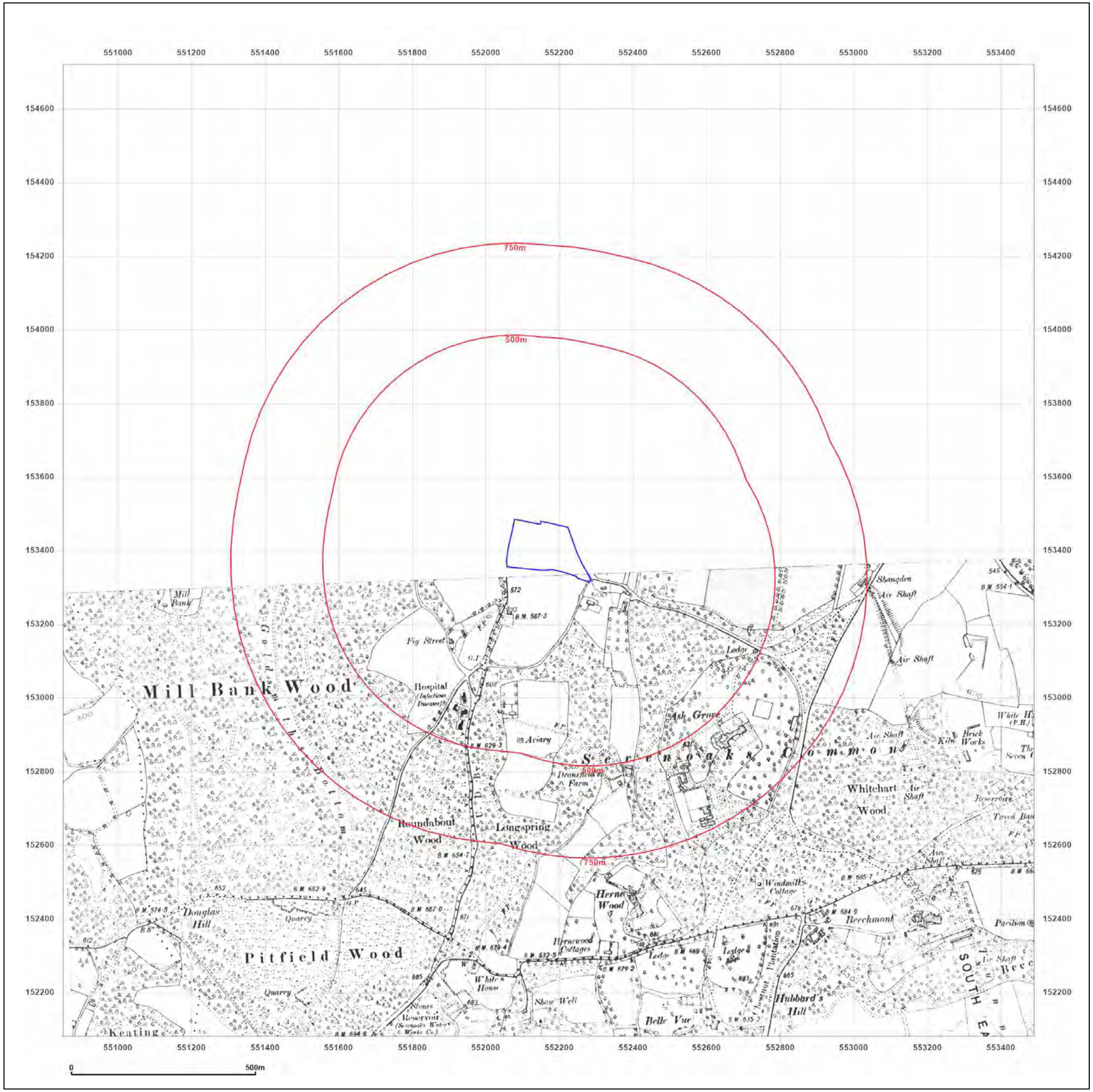

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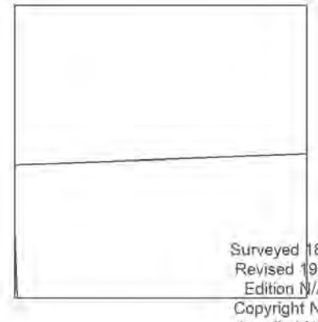

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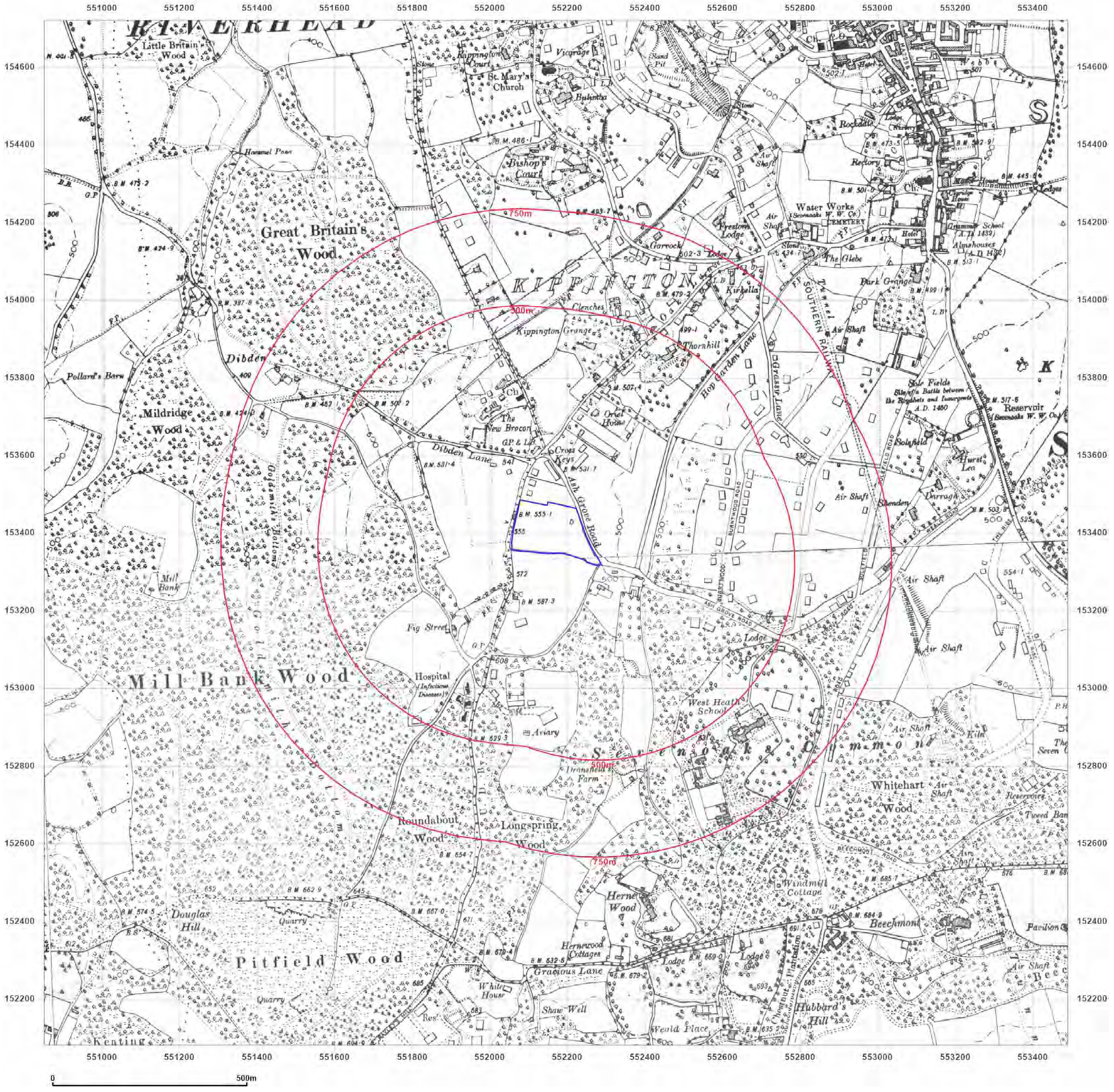

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Map date: **1937-1938**

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Edition 1938
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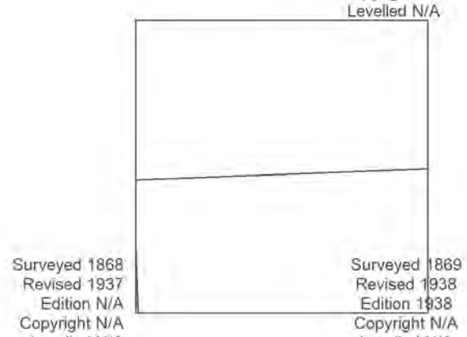
Levelled N/A



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Edition N/A
Copyright N/A
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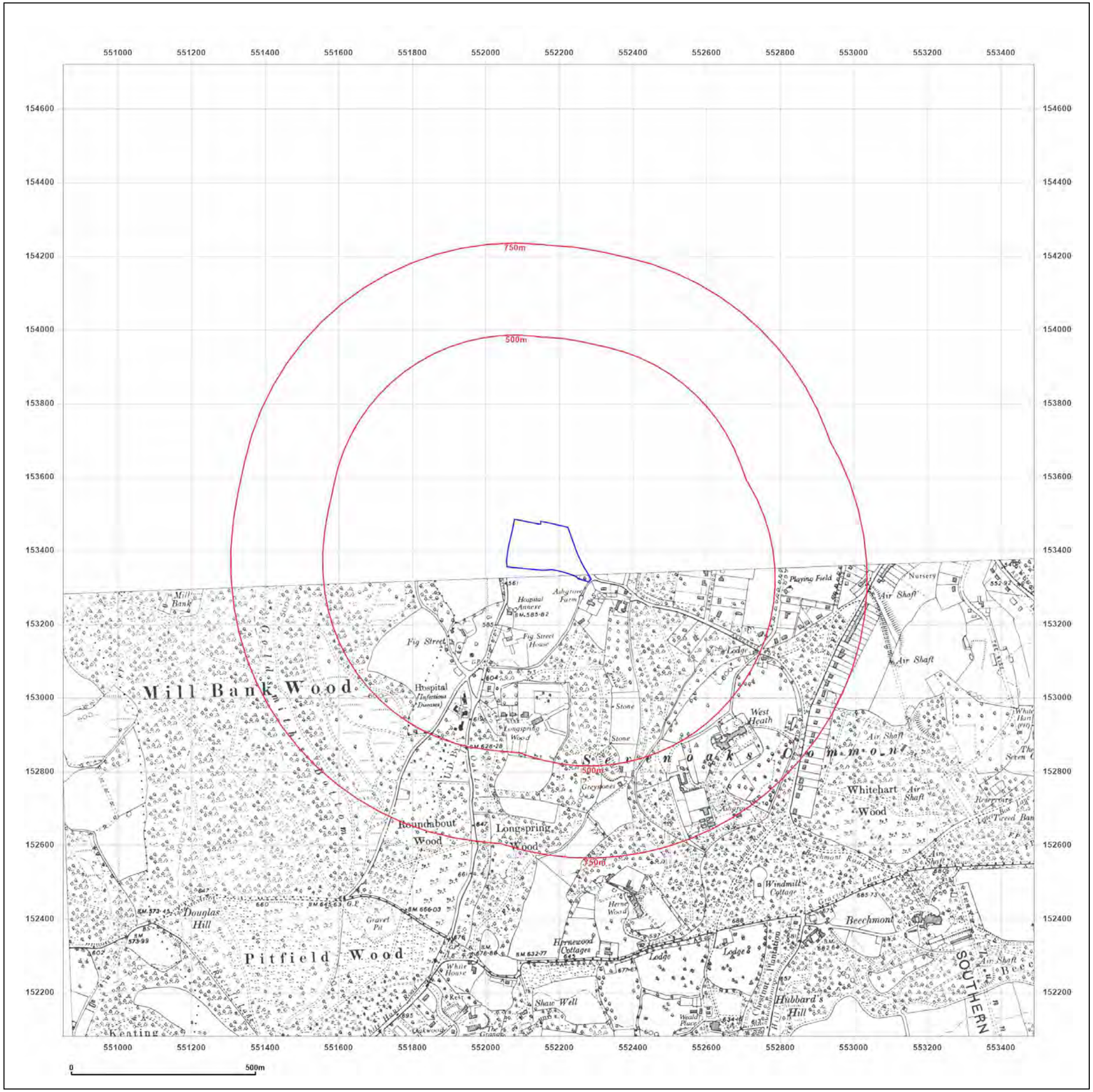

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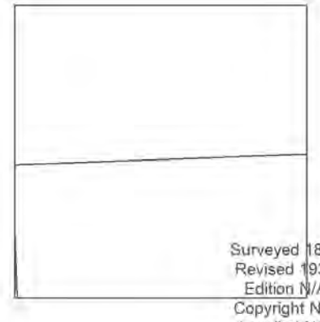

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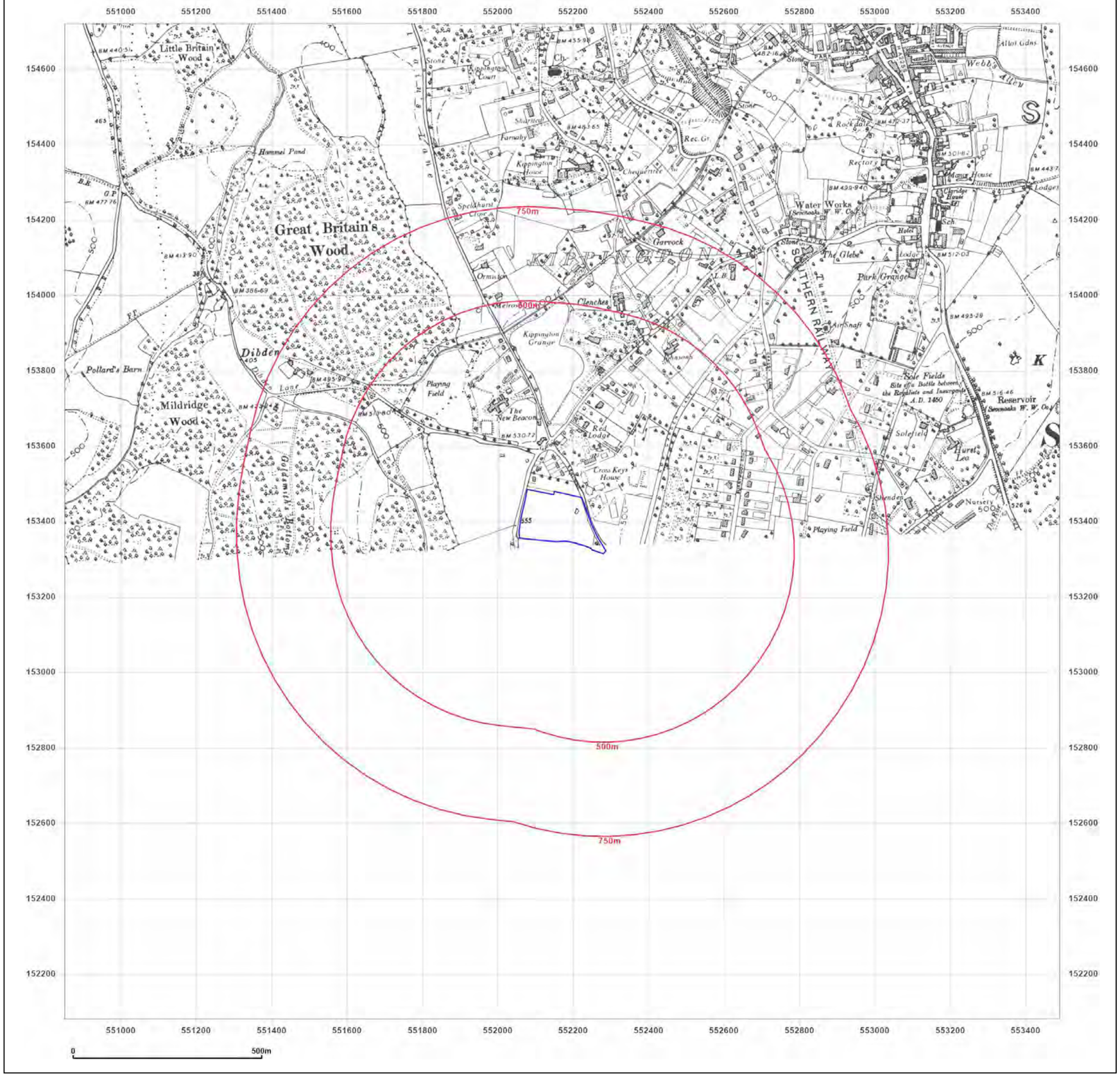

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Grid Ref: 552170, 153400

Map Name: County Series

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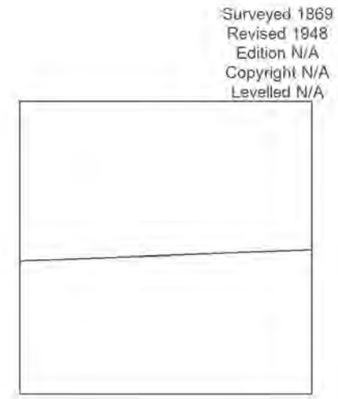

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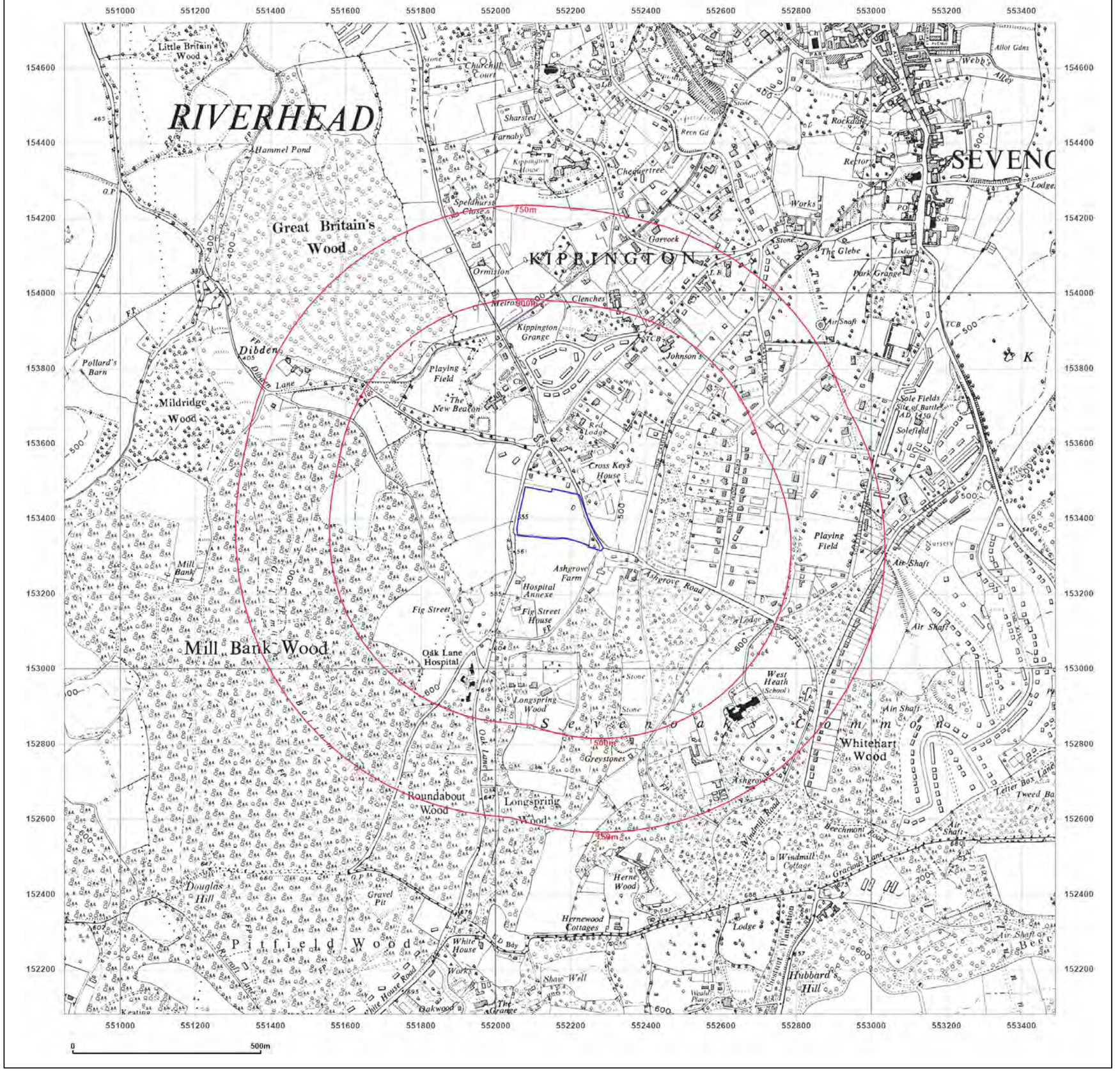

Groundsure INSIGHTS

Site Details:

LAND AT ASHGROVE ROAD,
SEVENOAKS, TN13 1SU

Client Ref: 22-212
Report Ref: GS-8692946
Grid Ref: 552170, 153400

Map Name: Provisional

Map date: **1955**

Scale: 1:10,560

Printed at: 1:10,560

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

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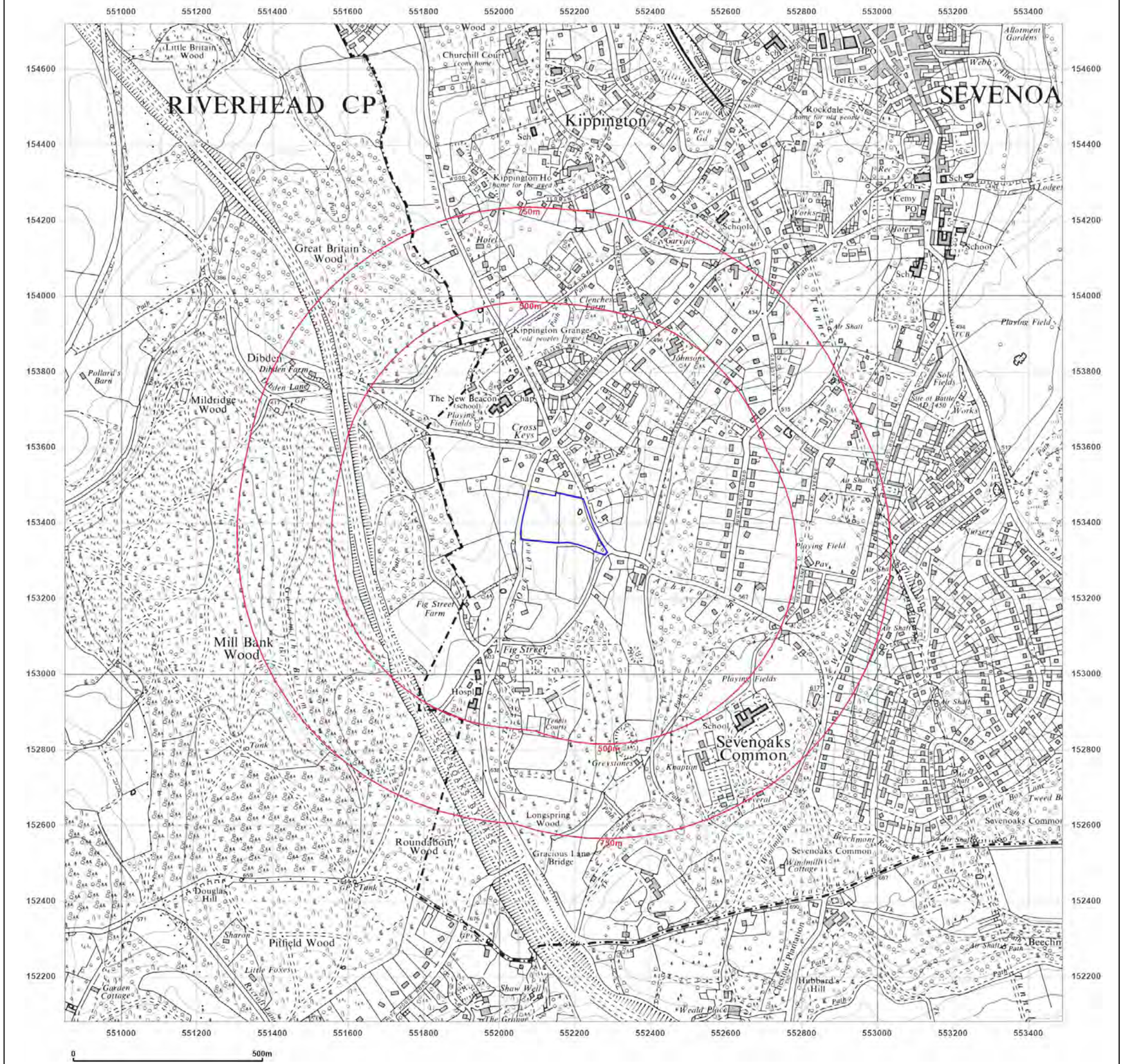

Groundsure INSIGHTS

Site Details:

LAND AT ASHGROVE ROAD,
SEVENOAKS, TN13 1SU

Client Ref: 22-212
Report Ref: GS-8692946
Grid Ref: 552170, 153400

Map Name: Provisional

Map date: **1971**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1968
Revised 1971
Edition N/A
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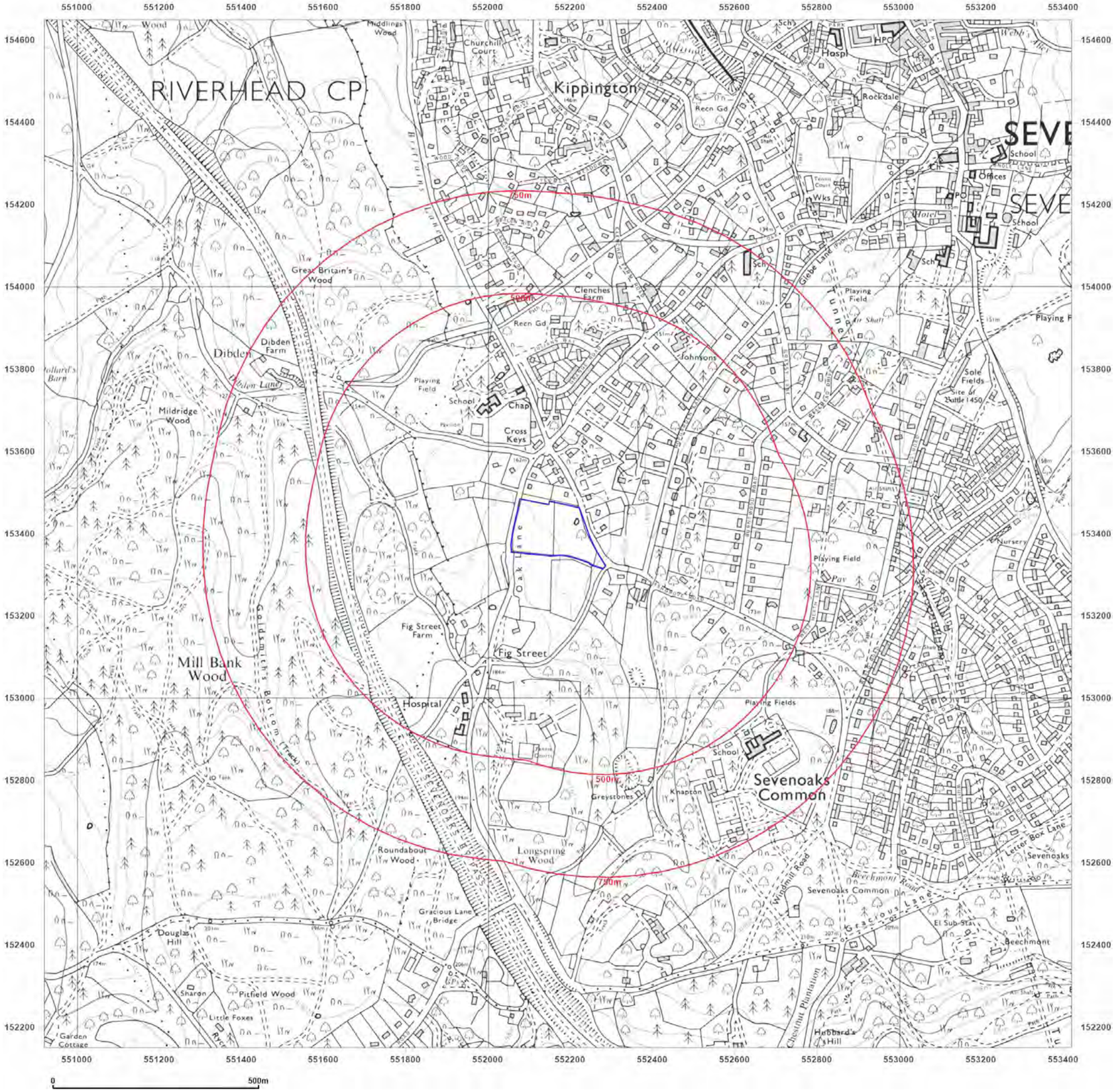

Groundsure INSIGHTS

Site Details:

LAND AT ASHGROVE ROAD,
SEVENOAKS, TN13 1SU

Client Ref: 22-212
Report Ref: GS-8692946
Grid Ref: 552170, 153400

Map Name: National Grid

Map date: **1974**

Scale: 1:10,000

Printed at: 1:10,000

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Production date: 23 April 2022

Map legend available at:
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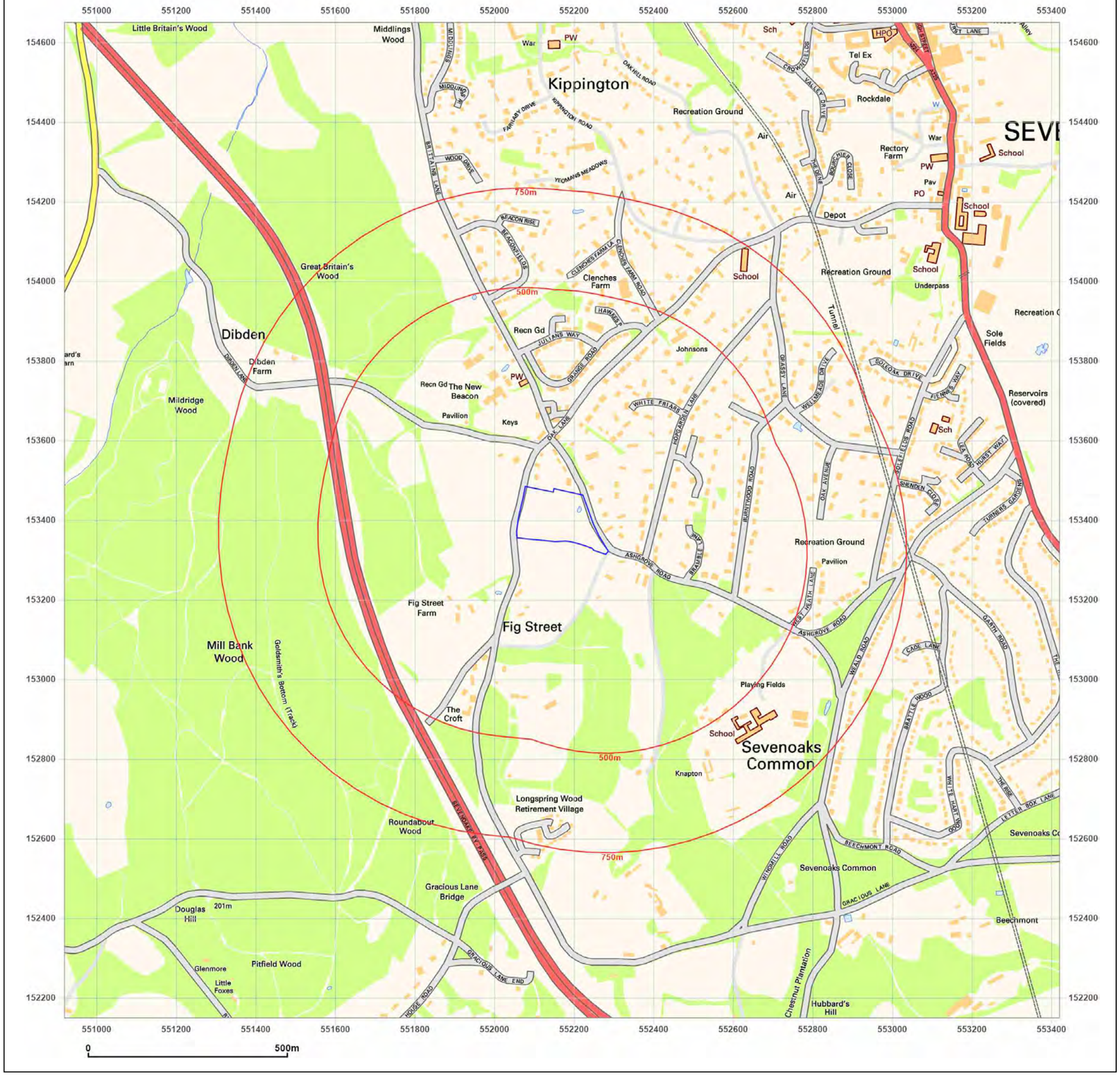

Groundsure INSIGHTS

Site Details:

LAND AT ASHGROVE ROAD,
SEVENOAKS, TN13 1SU

Client Ref: 22-212
Report Ref: GS-8692946
Grid Ref: 552170, 153400

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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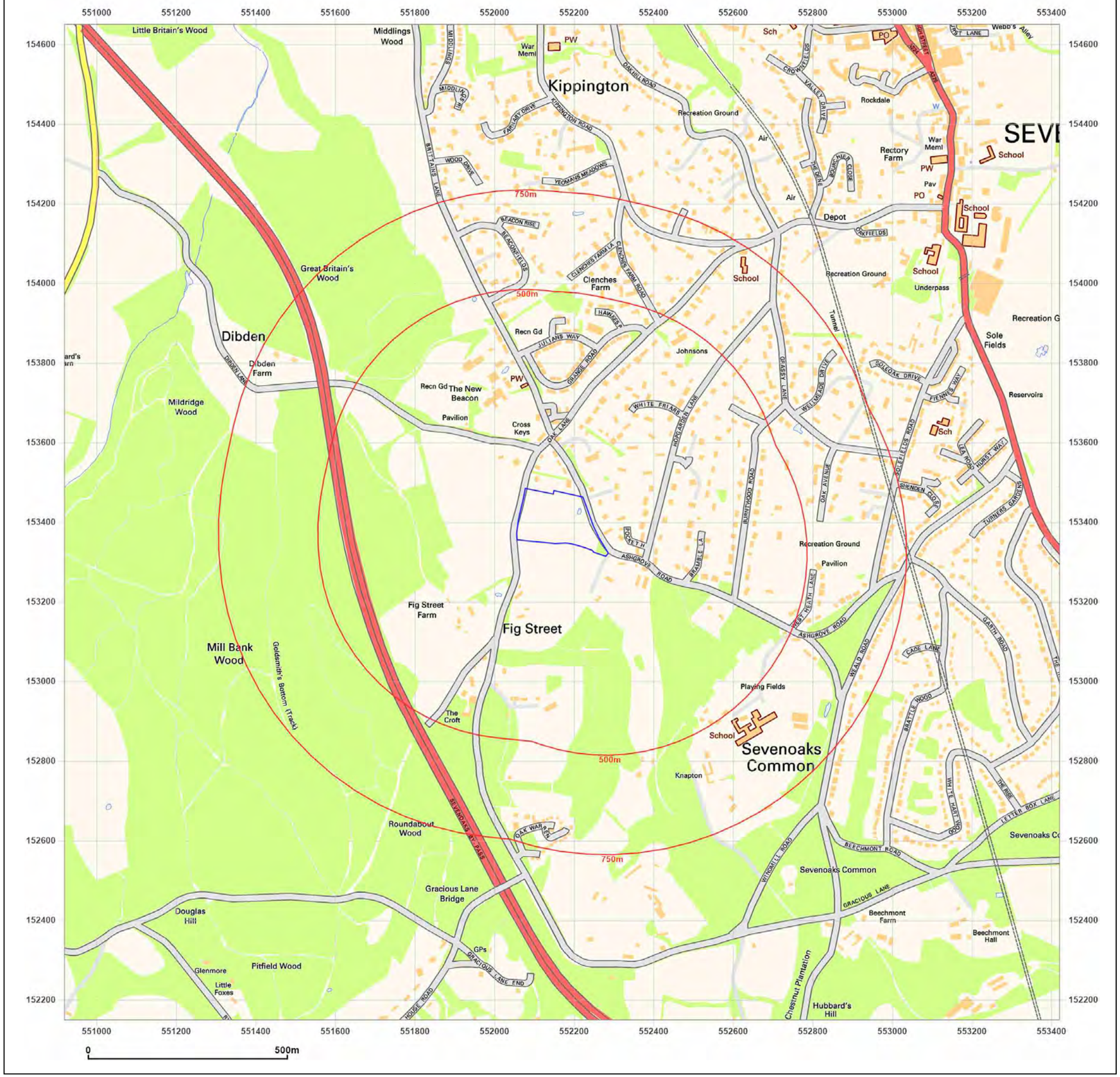
Production date: 23 April 2022

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



Groundsure INSIGHTS

Site Details:

LAND AT ASHGROVE ROAD,
SEVENOAKS, TN13 1SU

Client Ref: 22-212
Report Ref: GS-8692946
Grid Ref: 552170, 153400

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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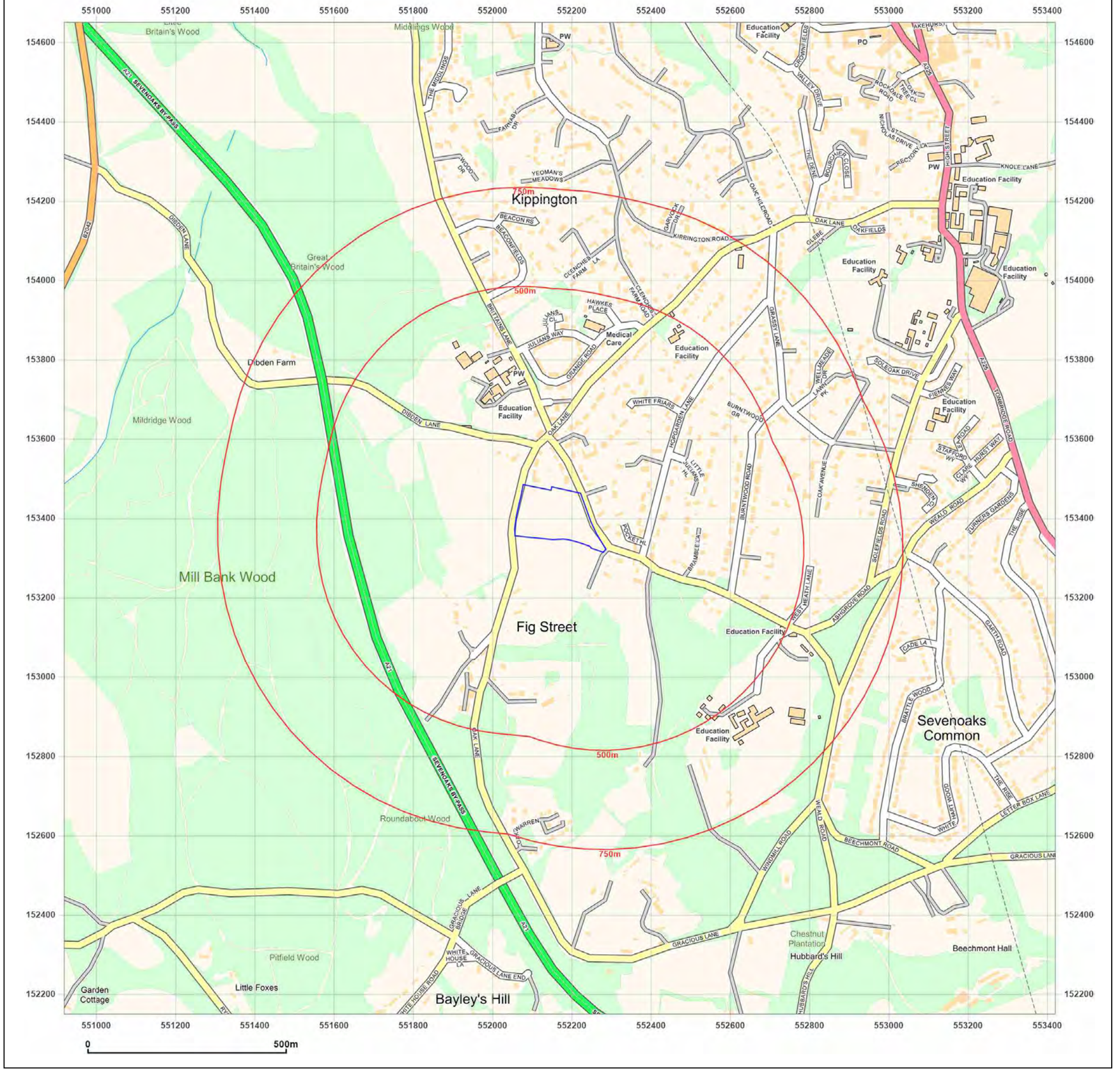

Groundsure INSIGHTS

Site Details:

LAND AT ASHGROVE ROAD,
SEVENOAKS, TN13 1SU

Client Ref: 22-212
Report Ref: GS-8692946
Grid Ref: 552170, 153400

Map Name: National Grid

Map date: **2022**

Scale: 1:10,000

Printed at: 1:10,000

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Production date: 23 April 2022

Map legend available at:
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APPENDIX 2

ENVIROCHECK REPORT

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

LAND AT ASHGROVE ROAD, SEVENOAKS, TN13 1SU

Order Details

Date: 23/04/2022

Your ref: 22-212

Our Ref: GS-8692947

Client: Marc Pearson

Site Details

Location: 552157 153413

Area: 2.39 ha

Authority: Sevenoaks 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	8	16	-
16	1.2	Historical tanks	0	0	5	3	-
16	1.3	Historical energy features	0	0	4	0	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	0	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
18	2.1	Historical industrial land uses	0	0	11	37	-
20	2.2	Historical tanks	0	0	8	4	-
21	2.3	Historical energy features	0	0	6	0	-
22	2.4	Historical petrol stations	0	0	0	0	-
22	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
23	3.1	Active or recent landfill	0	0	0	0	-
23	3.2	Historical landfill (BGS records)	0	0	0	0	-
23	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
23	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
23	3.5	Historical waste sites	0	0	0	0	-
24	3.6	Licensed waste sites	0	0	0	0	-
24	3.7	Waste exemptions	0	0	0	0	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
25	4.1	Recent industrial land uses	0	0	2	-	-
26	4.2	Current or recent petrol stations	0	0	0	0	-
26	4.3	Electricity cables	0	0	0	0	-
26	4.4	Gas pipelines	0	0	0	0	-
26	4.5	Sites determined as Contaminated Land	0	0	0	0	-

26	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
27	4.7	Regulated explosive sites	0	0	0	0	-
27	4.8	Hazardous substance storage/usage	0	0	0	0	-
27	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
27	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
27	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
28	4.12	Radioactive Substance Authorisations	0	0	0	0	-
28	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
28	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
28	4.15	Pollutant release to public sewer	0	0	0	0	-
28	4.16	List 1 Dangerous Substances	0	0	0	0	-
29	4.17	List 2 Dangerous Substances	0	0	0	0	-
29	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
29	4.19	Pollution inventory substances	0	0	0	0	-
29	4.20	Pollution inventory waste transfers	0	0	0	0	-
29	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
30	**5.1**	**Superficial aquifer**	Identified (within 500m)				
32	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
34	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
35	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
35	5.5	Groundwater vulnerability- local information	None (within 0m)				
36	**5.6**	**Groundwater abstractions**	0	0	0	0	8
38	**5.7**	**Surface water abstractions**	0	0	0	0	1
39	**5.8**	**Potable abstractions**	0	0	0	0	4
40	**5.9**	**Source Protection Zones**	2	0	0	1	-
41	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
42	6.1	Water Network (OS MasterMap)	0	0	0	-	-

42	6.2	Surface water features	0	0	0	-	-
43	**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
45	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
45	7.2	Historical Flood Events	0	0	0	-	-
45	7.3	Flood Defences	0	0	0	-	-
46	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
46	7.5	Flood Storage Areas	0	0	0	-	-
47	7.6	Flood Zone 2	None (within 50m)				
47	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
48	**8.1**	**Surface water flooding**	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding					
50	**9.1**	**Groundwater flooding**	Negligible (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
51	**10.1**	**Sites of Special Scientific Interest (SSSI)**	0	0	0	0	3
52	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
52	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
52	10.4	Special Protection Areas (SPA)	0	0	0	0	0
52	10.5	National Nature Reserves (NNR)	0	0	0	0	0
53	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
53	**10.7**	**Designated Ancient Woodland**	0	0	5	10	80
57	10.8	Biosphere Reserves	0	0	0	0	0
57	10.9	Forest Parks	0	0	0	0	0
57	10.10	Marine Conservation Zones	0	0	0	0	0
57	**10.11**	**Green Belt**	1	0	0	0	0
58	10.12	Proposed Ramsar sites	0	0	0	0	0

58	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
58	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
58	10.15	Nitrate Sensitive Areas	0	0	0	0	0
59	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
60	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
61	**10.18**	**SSSI Units**	0	0	0	0	5
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
64	11.1	World Heritage Sites	0	0	0	-	-
65	**11.2**	**Area of Outstanding Natural Beauty**	1	0	0	-	-
65	11.3	National Parks	0	0	0	-	-
65	**11.4**	**Listed Buildings**	0	0	1	-	-
66	11.5	Conservation Areas	0	0	0	-	-
66	11.6	Scheduled Ancient Monuments	0	0	0	-	-
66	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
67	**12.1**	**Agricultural Land Classification**	Non Agricultural (within 250m)				
68	12.2	Open Access Land	0	0	0	-	-
68	**12.3**	**Tree Felling Licences**	0	0	3	-	-
68	12.4	Environmental Stewardship Schemes	0	0	0	-	-
68	**12.5**	**Countryside Stewardship Schemes**	1	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
70	**13.1**	**Priority Habitat Inventory**	0	2	9	-	-
71	13.2	Habitat Networks	0	0	0	-	-
71	13.3	Open Mosaic Habitat	0	0	0	-	-
71	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
73	**14.1**	**10k Availability**	Identified (within 500m)				
74	14.2	Artificial and made ground (10k)	0	0	0	0	-
75	14.3	Superficial geology (10k)	0	0	0	0	-

75	14.4	Landslip (10k)	0	0	0	0	-
76	14.5	Bedrock geology (10k)	0	0	0	0	-
76	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
77	**15.1**	**50k Availability**	Identified (within 500m)				
78	15.2	Artificial and made ground (50k)	0	0	0	0	-
78	15.3	Artificial ground permeability (50k)	0	0	-	-	-
79	**15.4**	**Superficial geology (50k)**	0	0	2	0	-
80	15.5	Superficial permeability (50k)	None (within 50m)				
80	15.6	Landslip (50k)	0	0	0	0	-
80	15.7	Landslip permeability (50k)	None (within 50m)				
81	**15.8**	**Bedrock geology (50k)**	3	0	1	0	-
82	**15.9**	**Bedrock permeability (50k)**	Identified (within 50m)				
82	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
83	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
84	**17.1**	**Shrink swell clays**	Negligible (within 50m)				
85	**17.2**	**Running sands**	Low (within 50m)				
86	**17.3**	**Compressible deposits**	Negligible (within 50m)				
87	**17.4**	**Collapsible deposits**	Very low (within 50m)				
88	**17.5**	**Landslides**	Very low (within 50m)				
89	**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
90	18.1	Natural cavities	0	0	0	0	-
91	**18.2**	**BritPits**	0	0	0	2	-
91	**18.3**	**Surface ground workings**	0	0	9	-	-
92	**18.4**	**Underground workings**	0	0	0	0	45
94	18.5	Historical Mineral Planning Areas	0	0	0	0	-

94	**18.6**	**Non-coal mining**	1	0	0	0	0
94	18.7	Mining cavities	0	0	0	0	0
94	18.8	JPB mining areas	None (within 0m)				
95	18.9	Coal mining	None (within 0m)				
95	18.10	Brine areas	None (within 0m)				
95	18.11	Gypsum areas	None (within 0m)				
95	18.12	Tin mining	None (within 0m)				
95	18.13	Clay mining	None (within 0m)				

Page	Section	Radon					
96	**19.1**	**Radon**	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
97	**20.1**	**BGS Estimated Background Soil Chemistry**	3	3	-	-	-
97	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
98	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
99	21.1	Underground railways (London)	0	0	0	-	-
99	21.2	Underground railways (Non-London)	0	0	0	-	-
99	21.3	Railway tunnels	0	0	0	-	-
99	21.4	Historical railway and tunnel features	0	0	0	-	-
99	21.5	Royal Mail tunnels	0	0	0	-	-
100	21.6	Historical railways	0	0	0	-	-
100	21.7	Railways	0	0	0	-	-
100	21.8	Crossrail 1	0	0	0	0	-
100	21.9	Crossrail 2	0	0	0	0	-
100	21.10	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 23/04/2021

Site Area: 2.39ha

Recent site history - 2018 aerial photograph

Capture Date: 02/08/2018

Site Area: 2.39ha

Recent site history - 2012 aerial photograph

Capture Date: 27/05/2012

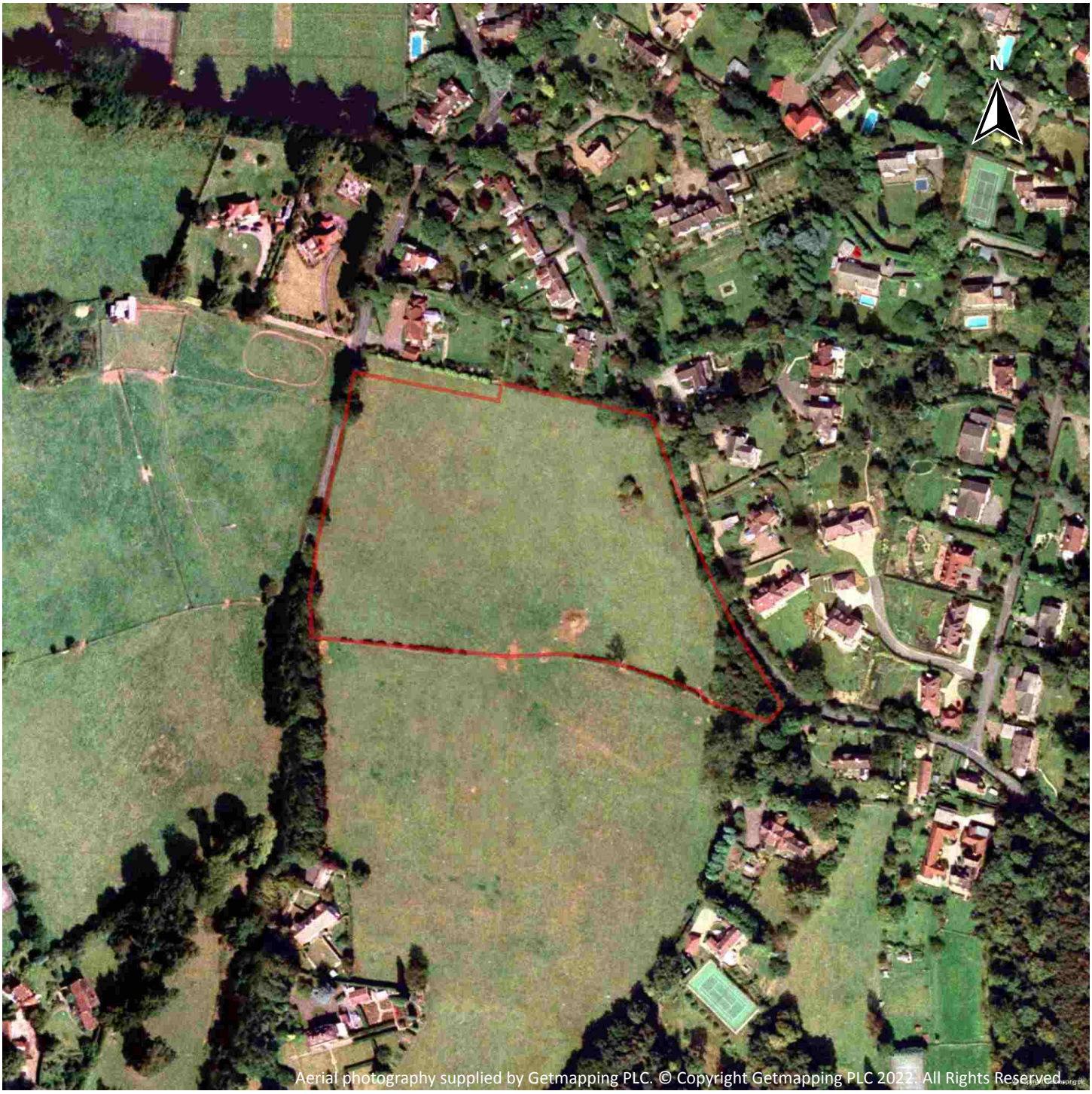
Site Area: 2.39ha

Recent site history - 2005 aerial photograph

Capture Date: 21/08/2005

Site Area: 2.39ha

Recent site history - 1999 aerial photograph



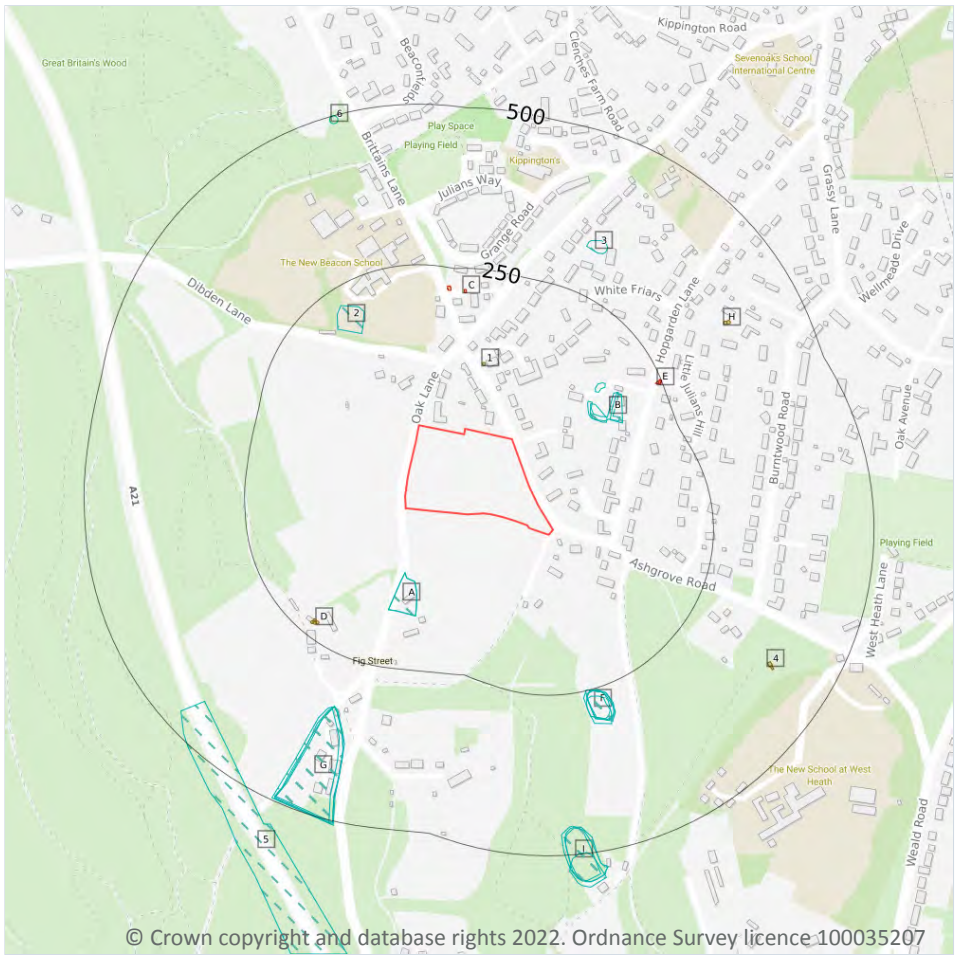
Capture Date: 06/09/1999

Site Area: 2.39ha

OS MasterMap site plan

Site Area: 2.39ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

1.1 Historical industrial land uses

Records within 500m	24

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

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

ID	Location	Land use	Dates present	Group ID
A	100m S	Hospital	1938	2164353

ID	Location	Land use	Dates present	Group ID
A	100m S	Infectious Diseases Hospital	1895	2164854
B	126m E	Unspecified Ground Workings	1955	2134922
B	128m E	Unspecified Pit	1948	2125721
B	150m NE	Unspecified Ground Workings	1948	2134923
B	154m E	Unspecified Pit	1948	2125722
2	168m NW	Unspecified Ground Workings	1938	2265449
F	249m S	Unspecified Pit	1955 - 1974	2217288
F	251m S	Unspecified Pit	1907	2245766
F	251m S	Unspecified Pit	1938	2248634
F	252m S	Unspecified Old Quarry	1895	2162949
F	252m S	Unspecified Pit	1907 - 1938	2171807
F	260m S	Unspecified Pit	1869	2227435
3	319m NE	Unspecified Pit	1948 - 1955	2235552
G	328m S	Infectious Diseases Hospital	1907 - 1938	2183553
G	328m S	Infectious Diseases Hospital	1938	2178498
G	330m S	Diseases Infectious Hospital	1907	2264622
G	330m S	Hospital	1955 - 1974	2225894
5	434m SW	Cuttings	1971 - 1974	2177394
I	455m S	Unspecified Pit	1955 - 1974	2267021
I	457m S	Unspecified Pit	1907 - 1938	2211648
I	459m S	Unspecified Old Quarry	1895	2162948
6	488m N	Unspecified Tank	1955 - 1974	2226189
I	498m S	Unspecified Pit	1869	2286657

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	8

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

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

ID	Location	Land use	Dates present	Group ID
1	103m N	Unspecified Tank	1896 - 1909	382459
D	223m SW	Unspecified Tank	1896	381151
D	223m SW	Unspecified Tank	1997	389392
D	225m SW	Unspecified Tank	1967	381043
D	227m SW	Unspecified Tank	1869 - 1936	392806
H	376m NE	Unspecified Tank	1937	409604
H	380m NE	Unspecified Tank	1965	402442
4	393m SE	Tanks	1965 - 1993	401160

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	4

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

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

ID	Location	Land use	Dates present	Group ID
C	212m N	Electricity Transformer	1974	251154
C	215m N	Electricity Substation	1989 - 1995	264944
E	240m E	Electricity Transformer	1974 - 1995	289727

ID	Location	Land use	Dates present	Group ID
E	244m E	Electricity Substation	1989	248591

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

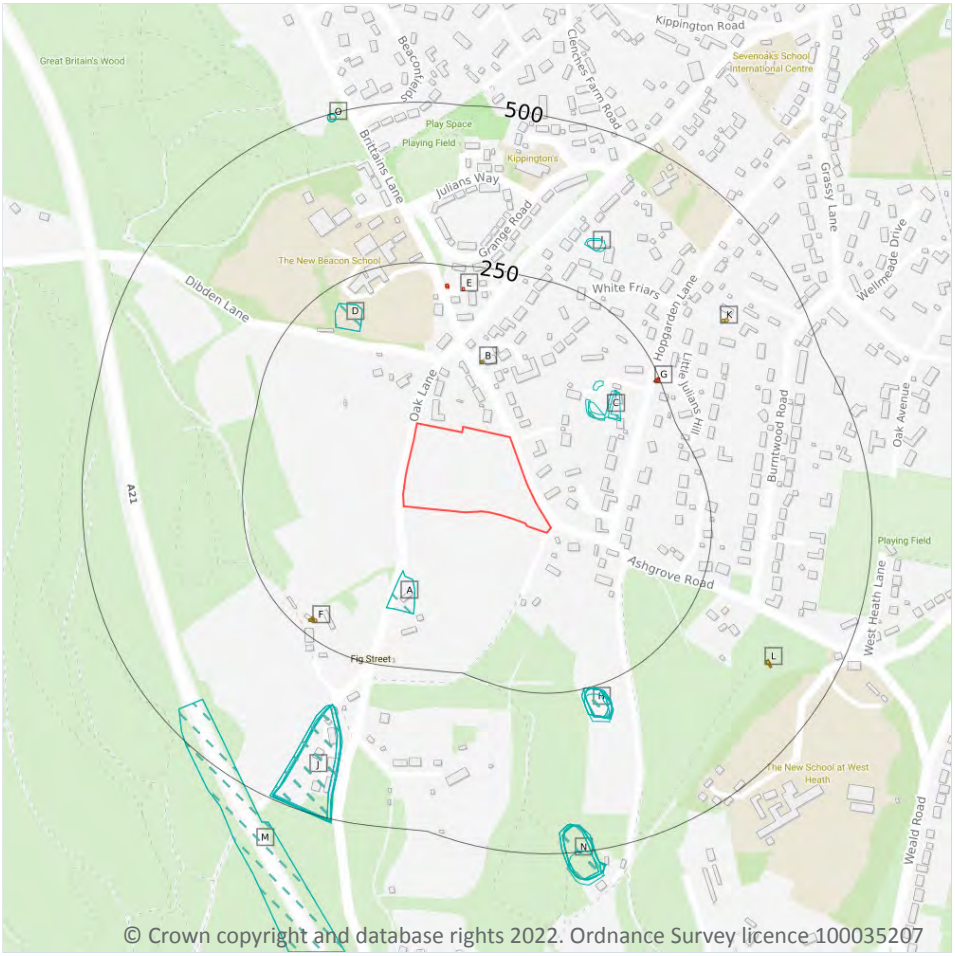
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

2.1 Historical industrial land uses

Records within 500m	48

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

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

ID	Location	Land Use	Date	Group ID
A	100m S	Hospital	1938	2164353
A	100m S	Infectious Diseases Hospital	1895	2164854
C	126m E	Unspecified Ground Workings	1955	2134922

ID	Location	Land Use	Date	Group ID
C	128m E	Unspecified Pit	1948	2125721
C	150m NE	Unspecified Ground Workings	1948	2134923
C	154m E	Unspecified Pit	1948	2125722
D	168m NW	Unspecified Ground Workings	1938	2265449
D	168m NW	Unspecified Ground Workings	1938	2265449
H	249m S	Unspecified Pit	1974	2217288
H	249m S	Unspecified Pit	1955	2217288
H	249m S	Unspecified Pit	1971	2217288
H	251m S	Unspecified Pit	1907	2245766
H	251m S	Unspecified Pit	1907	2245766
H	251m S	Unspecified Pit	1907	2245766
H	251m S	Unspecified Pit	1938	2248634
H	251m S	Unspecified Pit	1938	2248634
H	252m S	Unspecified Pit	1938	2171807
H	252m S	Unspecified Pit	1907	2171807
H	252m S	Unspecified Old Quarry	1895	2162949
H	260m S	Unspecified Pit	1869	2227435
I	319m NE	Unspecified Pit	1948	2235552
I	319m NE	Unspecified Pit	1955	2235552
J	328m S	Infectious Diseases Hospital	1907	2183553
J	328m S	Infectious Diseases Hospital	1938	2178498
J	330m S	Infectious Diseases Hospital	1938	2183553
J	330m S	Diseases Infectious Hospital	1907	2264622
J	330m S	Diseases Infectious Hospital	1907	2264622
J	330m S	Diseases Infectious Hospital	1907	2264622
J	330m S	Hospital	1974	2225894
J	330m S	Hospital	1955	2225894
J	330m S	Hospital	1971	2225894

ID	Location	Land Use	Date	Group ID
M	434m SW	Cuttings	1974	2177394
M	434m SW	Cuttings	1971	2177394
N	455m S	Unspecified Pit	1974	2267021
N	455m S	Unspecified Pit	1955	2267021
N	455m S	Unspecified Pit	1971	2267021
N	457m S	Unspecified Pit	1907	2211648
N	457m S	Unspecified Pit	1907	2211648
N	457m S	Unspecified Pit	1907	2211648
N	458m S	Unspecified Pit	1938	2211648
N	458m S	Unspecified Pit	1938	2211648
N	459m S	Unspecified Pit	1938	2211648
N	459m S	Unspecified Pit	1907	2211648
N	459m S	Unspecified Old Quarry	1895	2162948
O	488m N	Unspecified Tank	1974	2226189
O	488m N	Unspecified Tank	1955	2226189
O	488m N	Unspecified Tank	1971	2226189
N	498m S	Unspecified Pit	1869	2286657

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**12**

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

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

ID	Location	Land Use	Date	Group ID
B	103m N	Unspecified Tank	1896	382459
B	103m N	Unspecified Tank	1909	382459
F	223m SW	Unspecified Tank	1896	381151

ID	Location	Land Use	Date	Group ID
F	223m SW	Unspecified Tank	1997	389392
F	225m SW	Unspecified Tank	1967	381043
F	227m SW	Unspecified Tank	1869	392806
F	227m SW	Unspecified Tank	1909	392806
F	227m SW	Unspecified Tank	1936	392806
K	376m NE	Unspecified Tank	1937	409604
K	380m NE	Unspecified Tank	1965	402442
L	393m SE	Tanks	1965	401160
L	394m SE	Tanks	1993	401160

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**6**

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

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

ID	Location	Land Use	Date	Group ID
E	212m N	Electricity Transformer	1974	251154
E	215m N	Electricity Substation	1995	264944
E	217m N	Electricity Substation	1989	264944
G	240m E	Electricity Transformer	1995	289727
G	244m E	Electricity Substation	1989	248591
G	245m E	Electricity Transformer	1974	289727

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	0

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

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

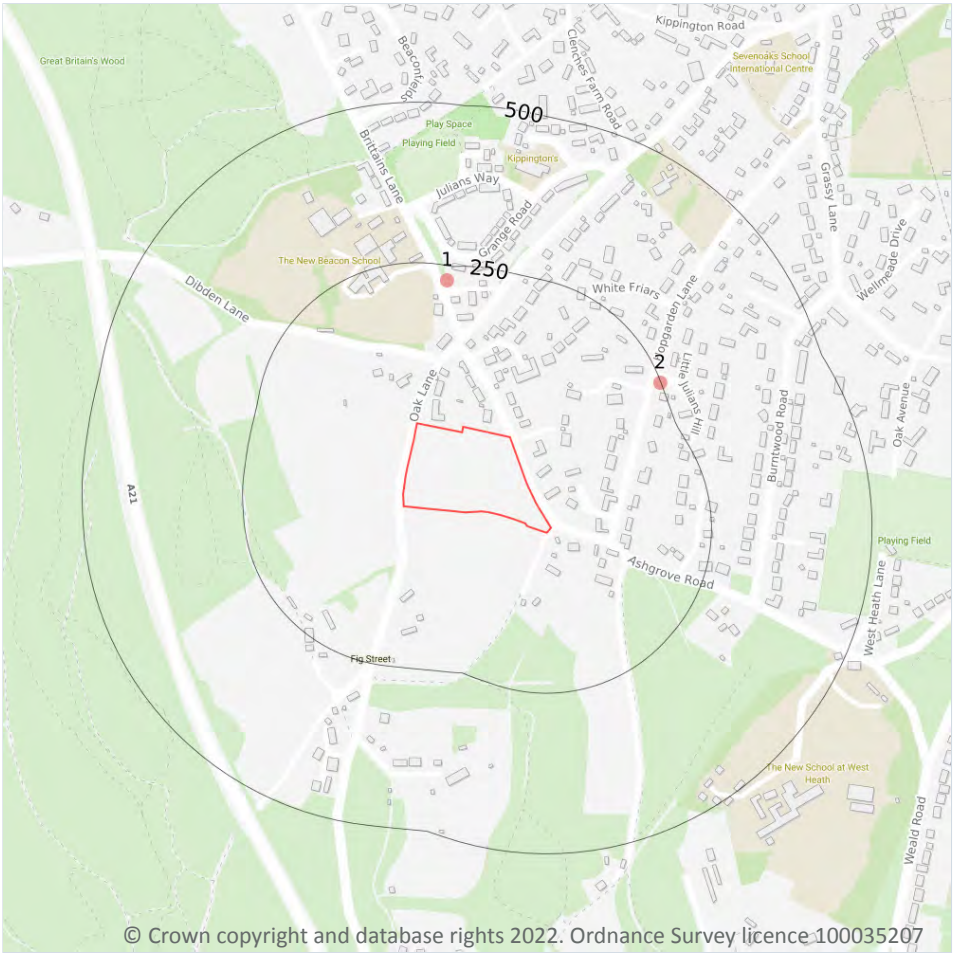
3.7 Waste exemptions

Records within 500m	0

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

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

4 Current industrial land use



Site Outline

Search buffers in metres (m)

Recent industrial land uses

4.1 Recent industrial land uses

Records within 250m	2

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 25**

ID	Location	Company	Address	Activity	Category
1	228m N	Electricity Sub Station	Kent, TN13	Electrical Features	Infrastructure and Facilities
2	248m E	Electricity Sub Station	Kent, TN13	Electrical Features	Infrastructure and Facilities

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	0

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

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.

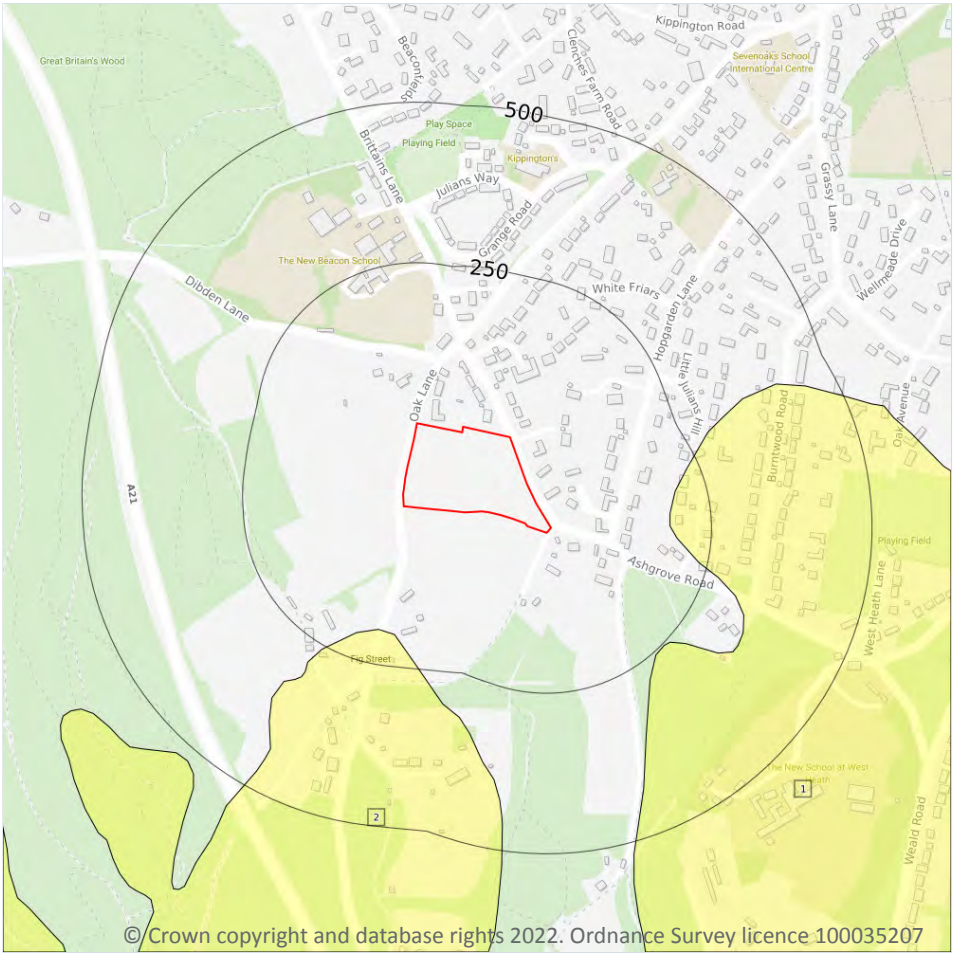
4.21 Pollution inventory radioactive waste

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



Site Outline

Search buffers in metres (m)

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

5.1 Superficial aquifer

Records within 500m	2

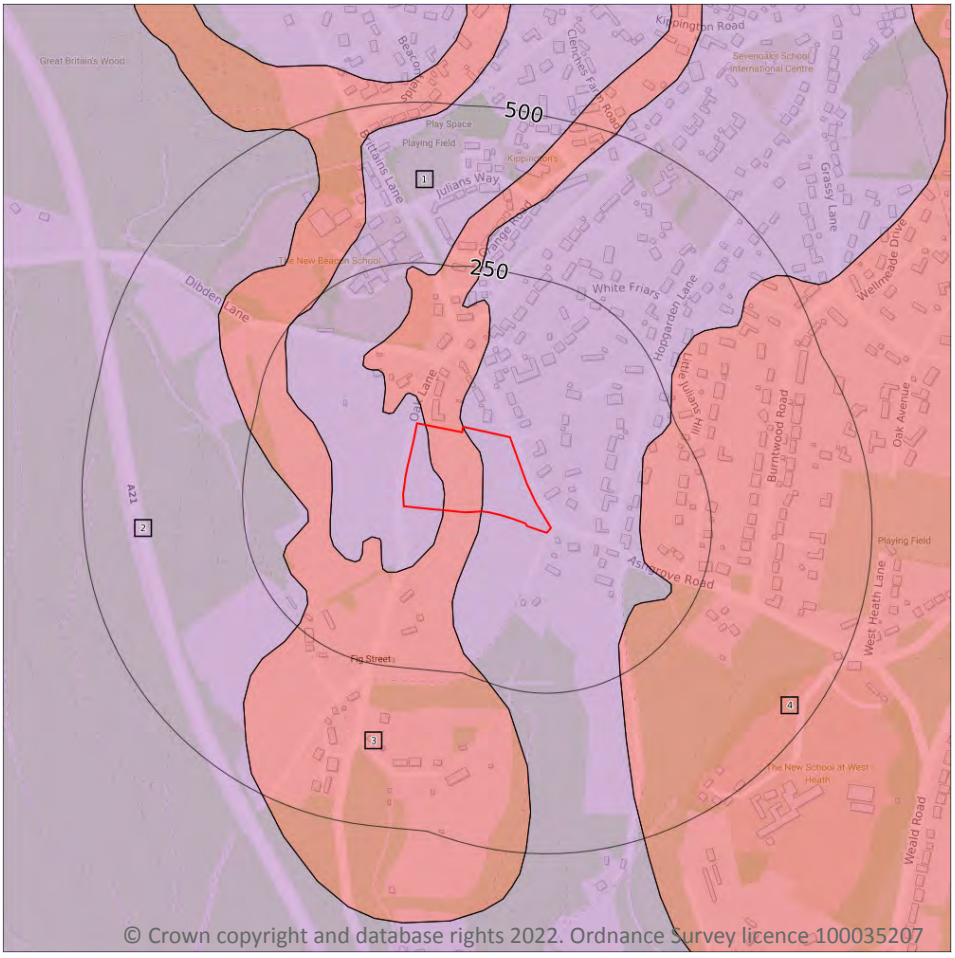
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 30**

ID	Location	Designation	Description
1	185m E	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	196m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

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

5.2 Bedrock aquifer

Records within 500m	4

Aquifer status of groundwater held within bedrock geology.

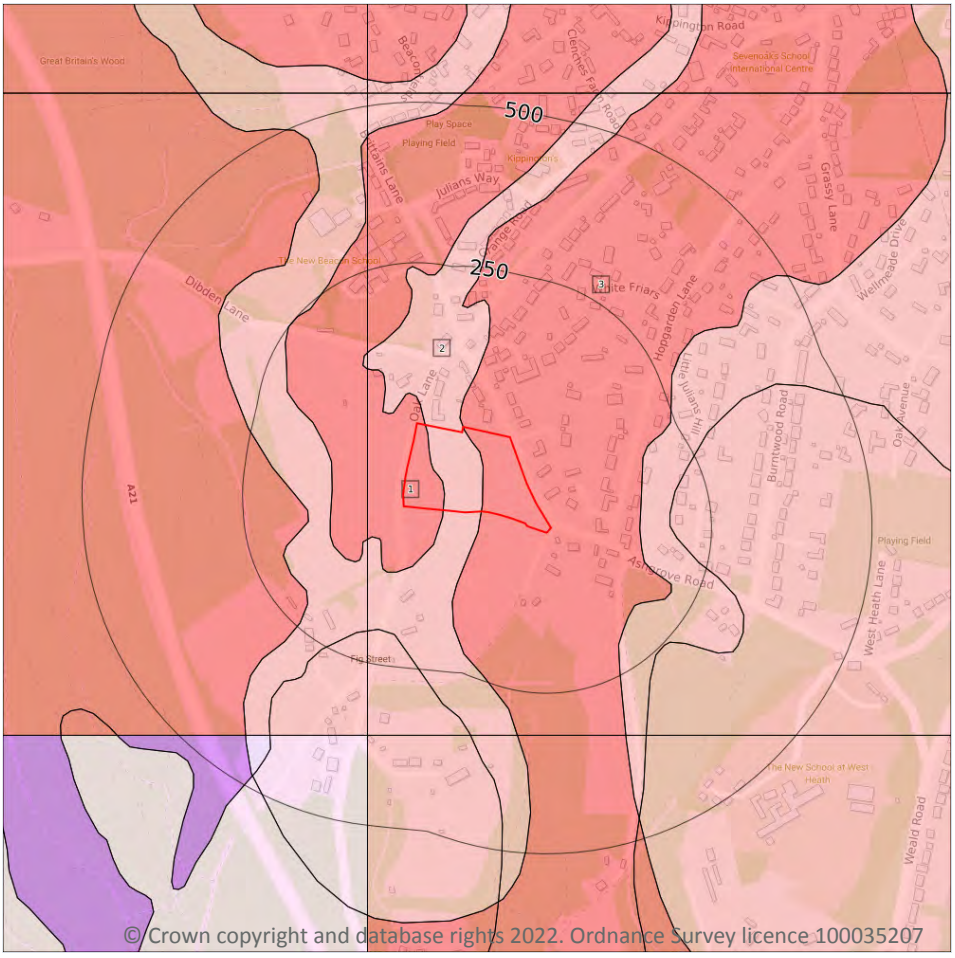
Features are displayed on the Bedrock aquifer map on **page 32**

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

ID	Location	Designation	Description
3	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
4	138m E	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.

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	3

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 34**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Mixed
2	On site	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Mixed
3	On site	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Principal Flow mechanism: Mixed

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	0

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

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

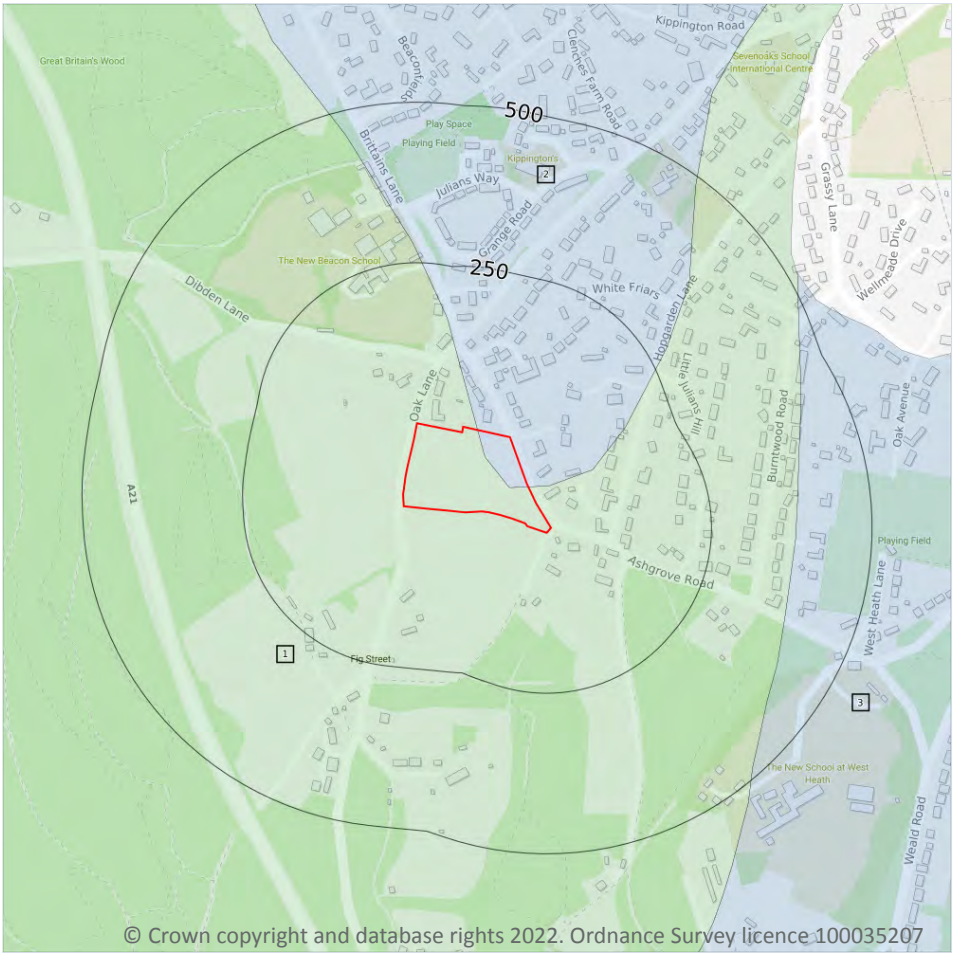
5.5 Groundwater vulnerability- local information

Records on site	0

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

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

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	8

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 36**

ID	Location	Details	
-	902m NE	Status: Historical Licence No: 9/40/01/0141/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BOREHOLES WITHIN LAND EDGED GREEN AT OAK LANE PS Data Type: Poly4 Name: South East Water Plc Easting: 552760 Northing: 154220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 01/01/1999 Version End Date: -
-	938m NE	Status: Historical Licence No: 9/40/01/0141/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT OAK LANE PS, SEVENOAKS Data Type: Point Name: South East Water Limited Easting: 552851 Northing: 154160	Annual Volume (m^3): 331858 Max Daily Volume (m^3): 1363.8 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 27/10/2010 Version End Date: -
-	938m NE	Status: Active Licence No: 9/40/01/0141/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT OAK LANE PS, SEVENOAKS Data Type: Point Name: South East Water Ltd Easting: 552850 Northing: 154162	Annual Volume (m^3): 331,864 Max Daily Volume (m^3): 1,363 Original Application No: NPS/WR/017456 Original Start Date: 01/02/1967 Expiry Date: - Issue No: 102 Version Start Date: 14/10/2016 Version End Date: -
-	1228m NE	Status: Active Licence No: SO/040/0037/014 Details: Heat Pump Direct Source: Southern Region Groundwater Point: SEVENOAKS SCHOOL BOREHOLE Data Type: Point Name: Sevenoaks School Easting: 553289 Northing: 154073	Annual Volume (m^3): 14,040 Max Daily Volume (m^3): 156 Original Application No: NPS/WR/026366 Original Start Date: 10/02/2016 Expiry Date: 31/03/2026 Issue No: 2 Version Start Date: 03/08/2017 Version End Date: -
-	1449m S	Status: Historical Licence No: 9/40/03/0082/GR Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: CATCHPIT AT DALE FARM, SEVENOAKS WEALD Data Type: Point Name: K & PM Sinden & Sons Easting: 552380 Northing: 151870	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 03/02/1997 Version End Date: -

ID	Location	Details	
-	1598m W	Status: Historical Licence No: 9/40/01/0072/GR Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: BOREHOLE AT WHITLEY FARM, IDE HILL Data Type: Point Name: Dewberry Easting: 550480 Northing: 153650	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 12/08/1991 Version End Date: -
-	1861m SW	Status: Active Licence No: 9/40/03/0066/GR Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Southern Region Groundwater Point: BOREHOLE AT THE STABLES, EVERLANDS, SEVENOAKS Data Type: Point Name: Campbell Easting: 551100 Northing: 151760	Annual Volume (m^3): 3,000 Max Daily Volume (m^3): 35 Original Application No: WR.2028 Original Start Date: 14/03/1967 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1861m SW	Status: Active Licence No: 9/40/03/0066/GR Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: BOREHOLE AT THE STABLES, EVERLANDS, SEVENOAKS Data Type: Point Name: Campbell Easting: 551100 Northing: 151760	Annual Volume (m^3): 3,000 Max Daily Volume (m^3): 35 Original Application No: WR.2028 Original Start Date: 14/03/1967 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**1**

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 36**

ID	Location	Details	
-	1939m SW	Status: Historical Licence No: 9/40/03/0527/CA Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: RESERVOIR FED BY UNNAMED SPRINGS AT EVERLANDS, SEVENOAKS Data Type: Point Name: Campbell Easting: 551000 Northing: 151730	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 12/06/1996 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m **4**

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 36**

ID	Location	Details	
-	902m NE	Status: Historical Licence No: 9/40/01/0141/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BOREHOLES WITHIN LAND EDGED GREEN AT OAK LANE PS Data Type: Poly4 Name: South East Water Plc Easting: 552760 Northing: 154220	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 01/01/1999 Version End Date: -
-	938m NE	Status: Historical Licence No: 9/40/01/0141/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT OAK LANE PS, SEVENOAKS Data Type: Point Name: South East Water Limited Easting: 552851 Northing: 154160	Annual Volume (m^3): 331858 Max Daily Volume (m^3): 1363.8 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 27/10/2010 Version End Date: -

ID	Location	Details	
-	938m NE	Status: Active Licence No: 9/40/01/0141/GR Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BOREHOLE AT OAK LANE PS, SEVENOAKS Data Type: Point Name: South East Water Ltd Easting: 552850 Northing: 154162	Annual Volume (m^3): 331,864 Max Daily Volume (m^3): 1,363 Original Application No: NPS/WR/017456 Original Start Date: 01/02/1967 Expiry Date: - Issue No: 102 Version Start Date: 14/10/2016 Version End Date: -
-	1861m SW	Status: Active Licence No: 9/40/03/0066/GR Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Southern Region Groundwater Point: BOREHOLE AT THE STABLES, EVERLANDS, SEVENOAKS Data Type: Point Name: Campbell Easting: 551100 Northing: 151760	Annual Volume (m^3): 3,000 Max Daily Volume (m^3): 35 Original Application No: WR.2028 Original Start Date: 14/03/1967 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	**3**

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 36**

ID	Location	Type	Description
1	**On site**	**3**	**Total catchment**
2	**On site**	**2**	**Outer catchment**
3	380m E	2	Outer catchment

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

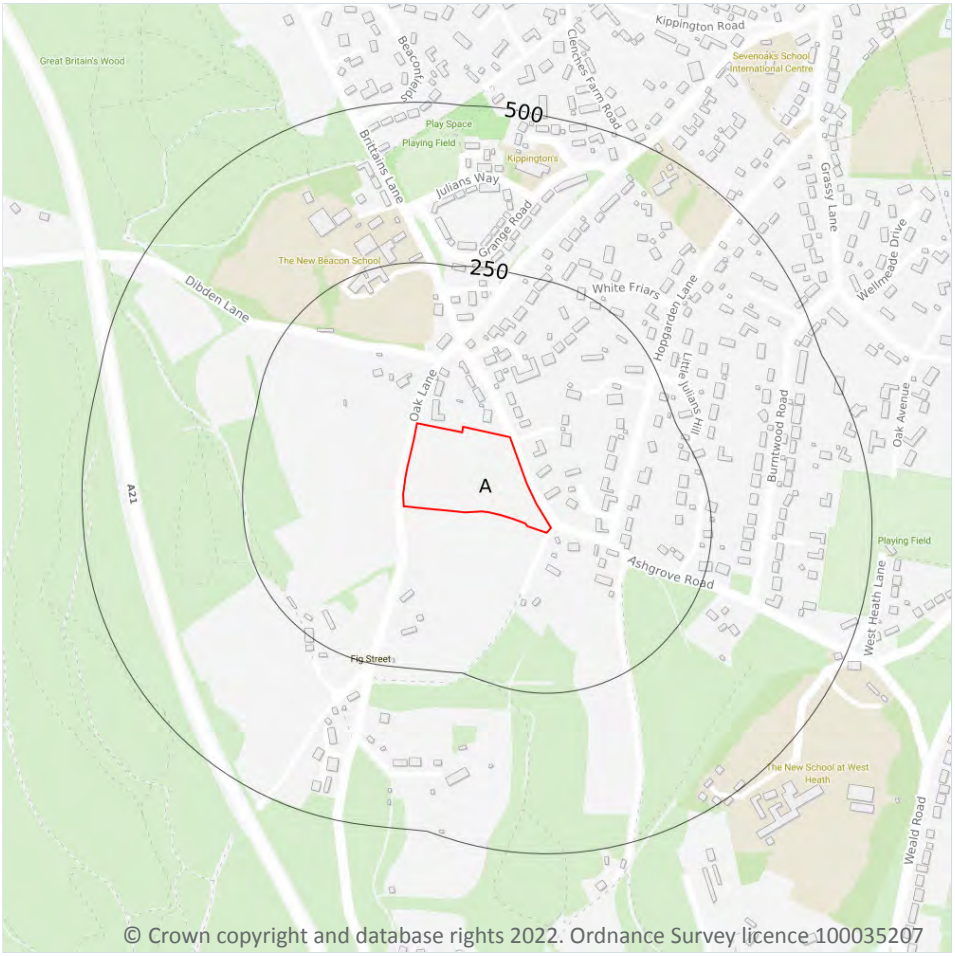
5.10 Source Protection Zones (confined aquifer)

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	0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	0

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

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

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 42**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Upper Darent**	**GB106040024221**	**Darent**	**Darent and Cray**

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 42**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	3251m N	River	Upper Darent	GB106040024221	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	1

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

Features are displayed on the Hydrology map on **page 42**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Kent Greensand Western**	**GB40601G500500**	**Poor**	**Poor**	**Poor**	**2019**

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

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

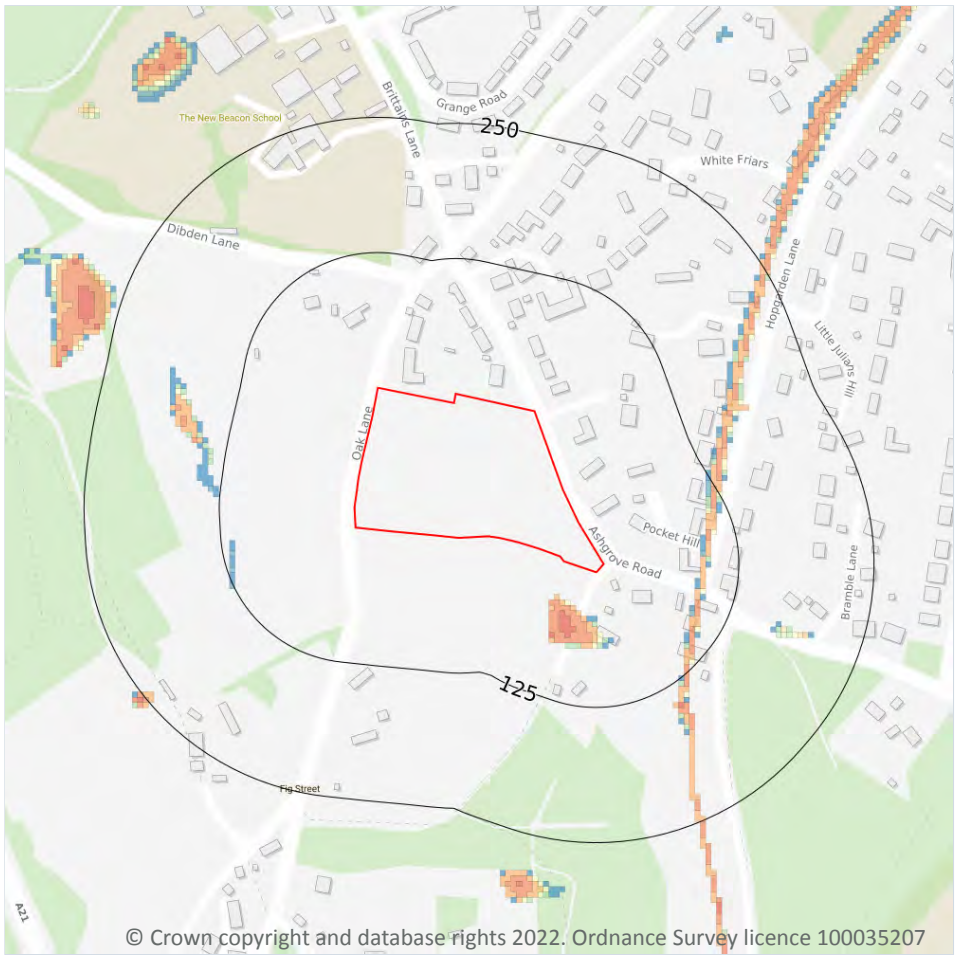
7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding



Site Outline
Search buffers in metres (m)

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

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

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

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

8.1 Surface water flooding

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

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

Features are displayed on the Surface water flooding map on **page 48**

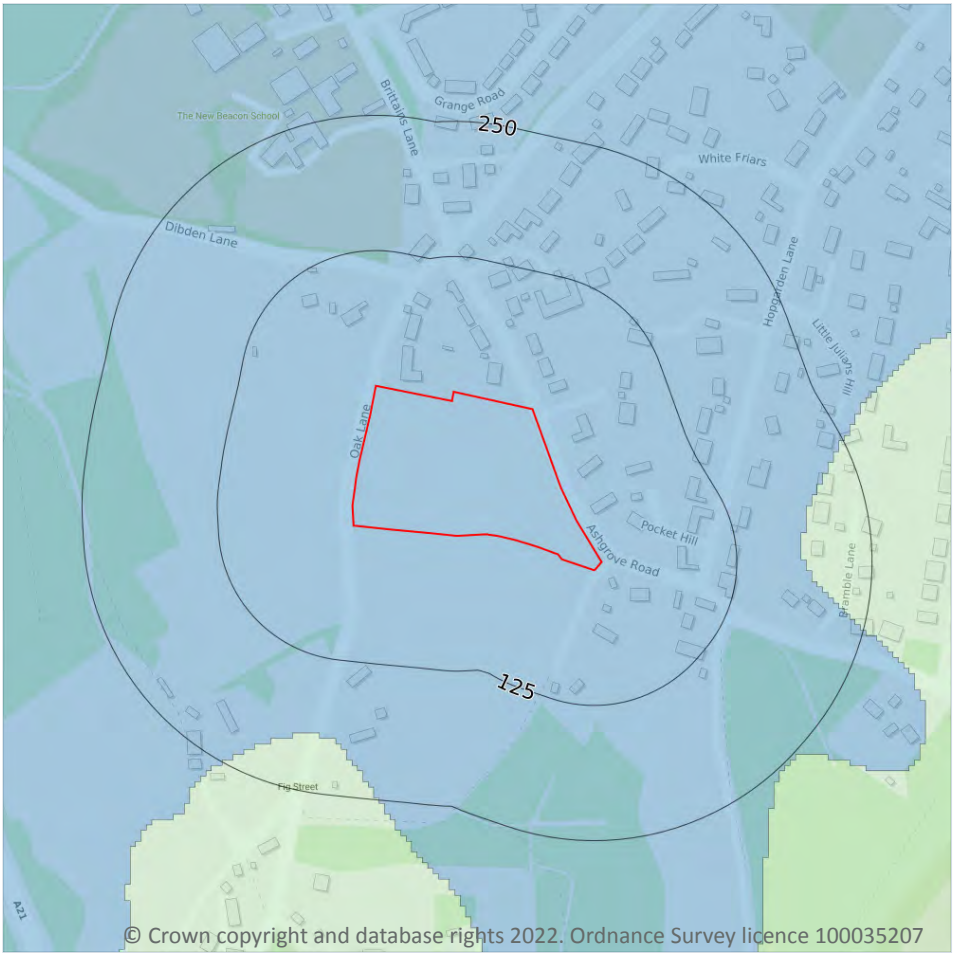
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

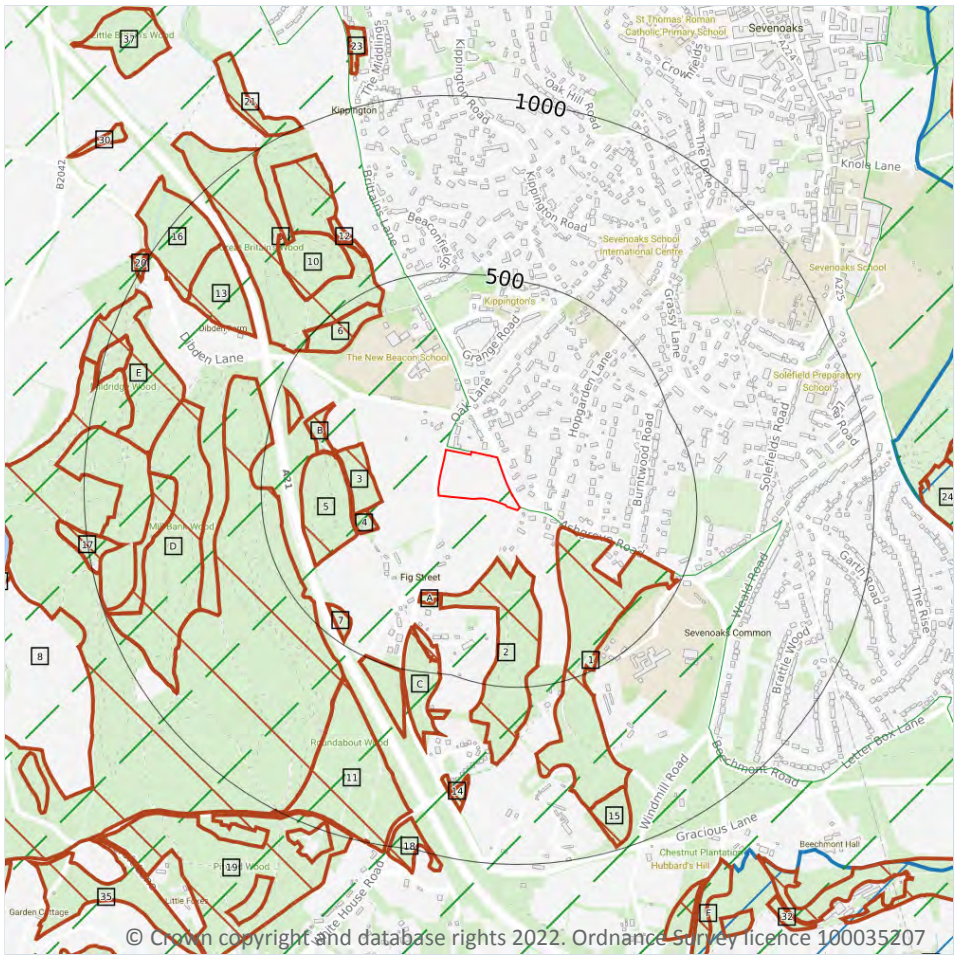
Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

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

Features are displayed on the Groundwater flooding map on **page 50**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SSSI)

Designated Ancient Woodland

Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	3

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 51**

ID	Location	Name	Data source
22	1070m E	Knole Park	Natural England

ID	Location	Name	Data source
25	1142m SE	Hubbard's Hill	Natural England
-	1814m SE	Knole Park	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	95

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

Features are displayed on the Environmental designations map on **page 51**

ID	Location	Name	Woodland Type
1	128m SE	Sevenoaks Common	Ancient & Semi-Natural Woodland
2	140m S	Unknown	Ancient & Semi-Natural Woodland
3	161m W	Unknown	Ancient & Semi-Natural Woodland
4	194m SW	Unknown	Ancient & Semi-Natural Woodland
5	249m W	Unknown	Ancient Replanted Woodland
A	276m S	Unknown	Ancient & Semi-Natural Woodland
B	308m W	Unknown	Ancient & Semi-Natural Woodland
A	372m S	Unknown	Ancient & Semi-Natural Woodland
C	376m S	Unknown	Ancient & Semi-Natural Woodland
6	404m NW	Unknown	Ancient & Semi-Natural Woodland
B	416m W	Unknown	Ancient Replanted Woodland
7	423m SW	Red Grove	Ancient Replanted Woodland
8	448m W	Red Grove	Ancient Replanted Woodland
9	450m NW	Great Britains Wood	Ancient & Semi-Natural Woodland

ID	Location	Name	Woodland Type
C	496m SW	Unknown	Ancient & Semi-Natural Woodland
10	557m NW	Great Britains Wood	Ancient Replanted Woodland
11	579m SW	Red Grove	Ancient & Semi-Natural Woodland
12	592m N	Unknown	Ancient & Semi-Natural Woodland
C	600m S	Unknown	Ancient & Semi-Natural Woodland
13	625m NW	Great Britains Wood	Ancient & Semi-Natural Woodland
D	641m W	Red Grove	Ancient Replanted Woodland
D	738m W	Red Grove	Ancient & Semi-Natural Woodland
E	755m W	Red Grove	Ancient & Semi-Natural Woodland
14	762m S	Unknown	Ancient & Semi-Natural Woodland
15	836m S	Sevenoaks Common	Ancient Replanted Woodland
16	842m NW	Great Britains Wood	Ancient Replanted Woodland
17	899m W	Red Grove	Ancient & Semi-Natural Woodland
18	913m S	Unknown	Ancient & Semi-Natural Woodland
E	930m W	Red Grove	Ancient Replanted Woodland
19	968m S	Red Grove	Ancient & Semi-Natural Woodland
20	984m NW	Unknown	Ancient & Semi-Natural Woodland
21	995m NW	Great Britains Wood	Ancient & Semi-Natural Woodland
23	1091m N	Unknown	Ancient & Semi-Natural Woodland
24	1132m E	Knole Park-Sole Wood	Ancient & Semi-Natural Woodland
F	1142m SE	Unknown	Ancient & Semi-Natural Woodland
F	1170m SE	Unknown	Ancient & Semi-Natural Woodland
26	1190m SE	Unknown	Ancient & Semi-Natural Woodland
27	1211m E	Knole Park-Sole Wood	Ancient Replanted Woodland
28	1217m E	Knole Park-Sole Wood	Ancient & Semi-Natural Woodland
29	1226m W	Unknown	Ancient & Semi-Natural Woodland
30	1261m NW	Unknown	Ancient & Semi-Natural Woodland
F	1288m SE	Unknown	Ancient & Semi-Natural Woodland

ID	Location	Name	Woodland Type
-	1302m E	Knole Park	Ancient & Semi-Natural Woodland
32	1311m SE	Unknown	Ancient & Semi-Natural Woodland
-	1338m W	Red Grove	Ancient & Semi-Natural Woodland
-	1338m E	Knole Park	Ancient Replanted Woodland
35	1345m SW	Red Grove	Ancient & Semi-Natural Woodland
-	1371m S	Unknown	Ancient & Semi-Natural Woodland
37	1377m NW	Little Britains Wood	Ancient Replanted Woodland
-	1382m SW	Unknown	Ancient & Semi-Natural Woodland
-	1384m E	Knole Park-Sole Wood	Ancient & Semi-Natural Woodland
-	1397m W	Red Grove	Ancient Replanted Woodland
-	1446m NW	Unknown	Ancient & Semi-Natural Woodland
-	1452m S	Unknown	Ancient & Semi-Natural Woodland
-	1512m S	Unknown	Ancient & Semi-Natural Woodland
-	1551m W	Unknown	Ancient Replanted Woodland
-	1568m NW	Unknown	Ancient & Semi-Natural Woodland
-	1570m NE	Knole Park	Ancient & Semi-Natural Woodland
46	1582m SW	Red Grove	Ancient & Semi-Natural Woodland
-	1584m NE	Knole Park	Ancient & Semi-Natural Woodland
-	1585m E	Knole Park	Ancient Replanted Woodland
-	1585m S	Unknown	Ancient & Semi-Natural Woodland
H	1591m SW	Red Grove	Ancient & Semi-Natural Woodland
50	1595m NE	Knole Park	Ancient & Semi-Natural Woodland
-	1599m SW	Red Grove	Ancient Replanted Woodland
-	1604m NE	Knole Park	Ancient & Semi-Natural Woodland
-	1637m W	Unknown	Ancient Replanted Woodland
-	1658m E	Knole Park-Chestnut Walk	Ancient Replanted Woodland
-	1670m W	Red Grove	Ancient & Semi-Natural Woodland
-	1672m W	Unknown	Ancient Replanted Woodland

ID	Location	Name	Woodland Type
-	1677m NW	Unknown	Ancient & Semi-Natural Woodland
-	1694m NE	Knole Park	Ancient & Semi-Natural Woodland
-	1724m SW	Unknown	Ancient & Semi-Natural Woodland
-	1741m SW	Unknown	Ancient & Semi-Natural Woodland
-	1743m S	Unknown	Ancient & Semi-Natural Woodland
-	1743m W	Red Grove	Ancient Replanted Woodland
-	1750m SW	Red Grove	Ancient & Semi-Natural Woodland
-	1801m SW	Unknown	Ancient & Semi-Natural Woodland
-	1814m W	Unknown	Ancient Replanted Woodland
-	1816m S	Unknown	Ancient & Semi-Natural Woodland
-	1819m W	Unknown	Ancient Replanted Woodland
-	1870m SW	Unknown	Ancient & Semi-Natural Woodland
-	1895m NE	Knole Park	Ancient & Semi-Natural Woodland
-	1901m E	Knole Park-Chestnut Walk	Ancient Replanted Woodland
-	1928m NW	Unknown	Ancient & Semi-Natural Woodland
-	1928m SE	Unknown	Ancient & Semi-Natural Woodland
-	1946m S	Unknown	Ancient & Semi-Natural Woodland
-	1950m NW	Red Grove	Ancient & Semi-Natural Woodland
-	1953m NW	Red Grove	Ancient Replanted Woodland
-	1954m SE	Knole Park-Chestnut Walk	Ancient Replanted Woodland
-	1959m W	Unknown	Ancient Replanted Woodland
-	1961m SE	Unknown	Ancient & Semi-Natural Woodland
-	1961m W	Unknown	Ancient Replanted Woodland
-	1963m SW	Unknown	Ancient & Semi-Natural Woodland
-	1995m W	Red Grove	Ancient Replanted Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 51**

ID	Location	Name	Local Authority name
A	**On site**	**London**	**Sevenoaks**

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.

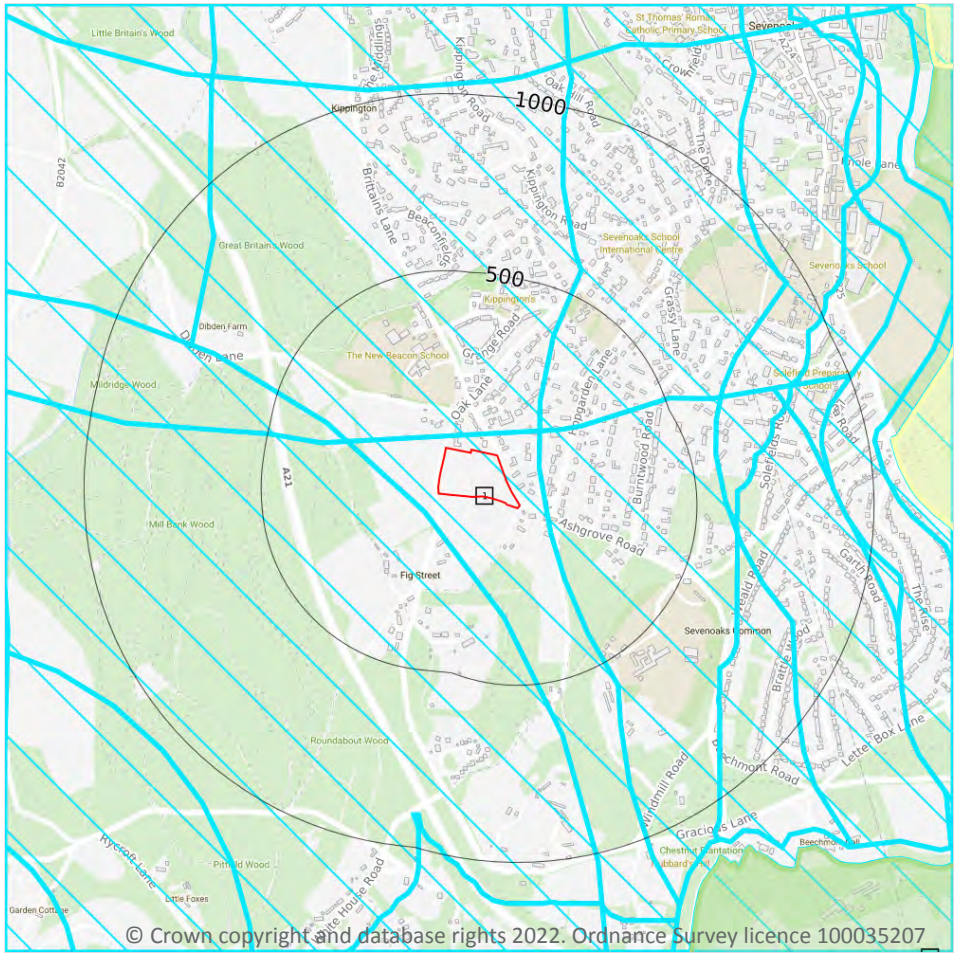
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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.

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 60**

ID	Location	Type of developments requiring consultation
1	On site	**Infrastructure - Airports, helipads and other aviation proposals.** **Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction.** **Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t).** **Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.** **Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill.** **Composting - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.** **Discharges - Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**5**

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 60**

ID: 20
Location: 1070m E
SSSI name: Knole Park
Unit name: Seven Oaks
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Fungi assemblage	Unfavourable - Recovering	26/07/2012
Invert. assemblage A211 heartwood decay	Favourable	26/07/2021
Invert. assemblage A212 bark and sapwood decay	Favourable	26/07/2021
Invert. assemblage A213 fungal fruiting body	Unfavourable - Recovering	26/07/2012
Lowland mixed deciduous woodland	Favourable	08/01/2021

ID: 23
Location: 1142m SE
SSSI name: Hubbard's Hill
Unit name: Hubbard's Hill
Broad habitat: Earth Heritage
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
IS - Quaternary of South-East England	Favourable	15/03/2006

ID: 30
Location: 1445m NE
SSSI name: Knole Park
Unit name: Echo Mount
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Fungi assemblage	Favourable	26/07/2012
Invert. assemblage A211 heartwood decay	Favourable	26/07/2012
Invert. assemblage A212 bark and sapwood decay	Favourable	26/07/2012
Invert. assemblage A213 fungal fruiting body	Favourable	26/07/2012

ID: 34
Location: 1660m NE
SSSI name: Knole Park
Unit name: Duchess's Walk
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Fungi assemblage	Unfavourable - Recovering	26/07/2012
Invert. assemblage A211 heartwood decay	Unfavourable - Recovering	26/07/2012
Invert. assemblage A212 bark and sapwood decay	Unfavourable - Recovering	26/07/2012
Invert. assemblage A213 fungal fruiting body	Unfavourable - Recovering	26/07/2012

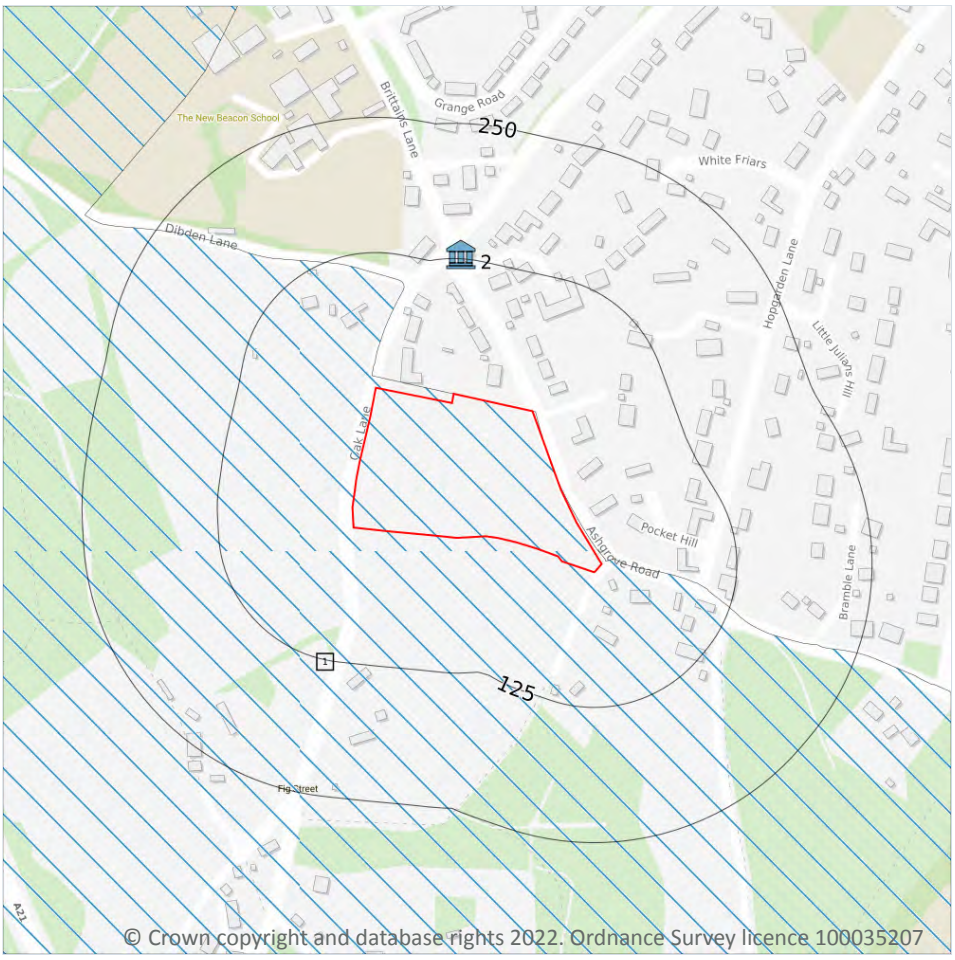
Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	-	-

ID: -
Location: 1901m E
SSSI name: Knole Park
Unit name: Chestnut Walk
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
Fungi assemblage	Unfavourable - Recovering	26/07/2012
Invert. assemblage A211 heartwood decay	Favourable	26/07/2021
Invert. assemblage A212 bark and sapwood decay	Favourable	26/07/2021
Invert. assemblage A213 fungal fruiting body	Unfavourable - Recovering	26/07/2012
Lowland mixed deciduous woodland	Favourable	08/01/2021

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	1

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.

Features are displayed on the Visual and cultural designations map on **page 64**

ID	Location	NAME	Data Source
1	**On site**	**Kent Downs**	**Natural England**

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	1

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 64**

ID	Location	Name	Grade	Reference Number	Listed date
2	129m N	Cross Keys Cottage, Sevenoaks, Kent, TN13	II	1086039	29/09/1972

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.

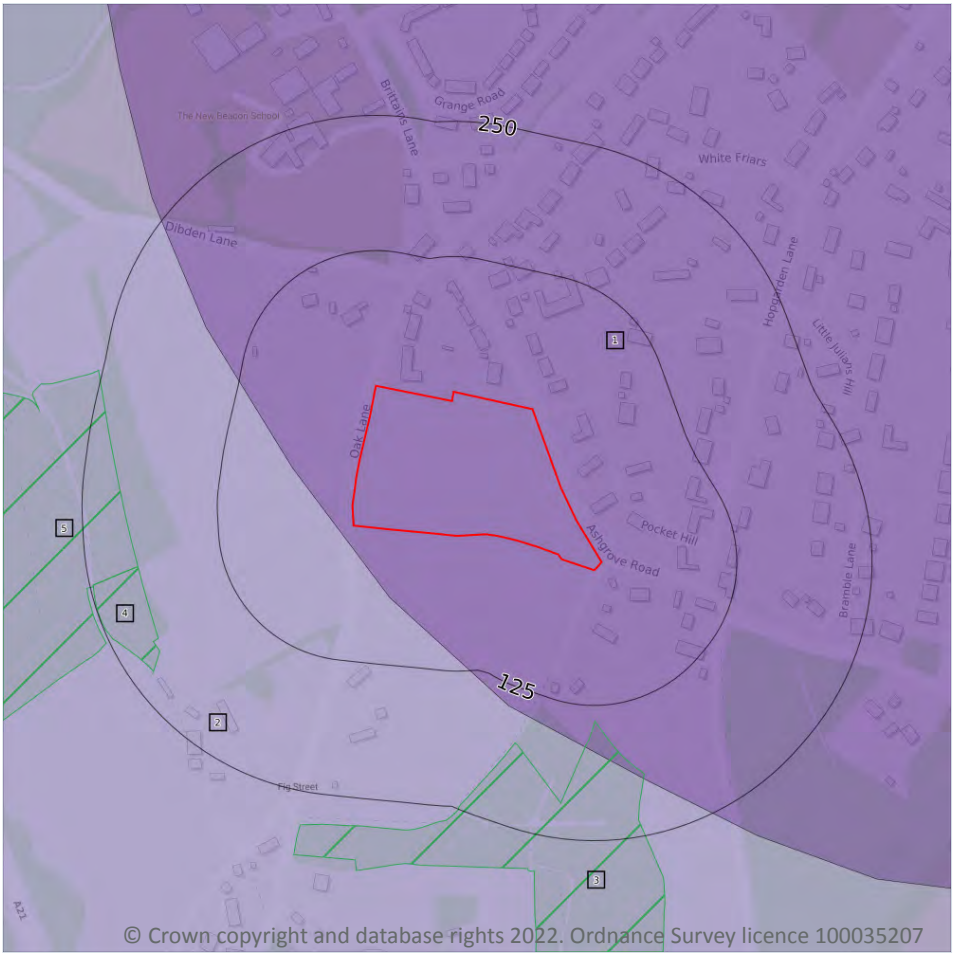
11.7 Registered Parks and Gardens

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	2

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 67**

ID	Location	Classification	Description
1	**On site**	**Urban**	**-**
2	13m SW	Non Agricultural	-

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	3

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

Features are displayed on the Agricultural designations map on **page 67**

ID	Location	Description	Reference	Application date
3	140m S	Selective Fell/Thin (Conditional)	019/114/15-16	08/09/2015
4	202m W	Selective Fell/Thin (Unconditional)	018/366/15-16	-
5	203m W	Selective Fell/Thin (Unconditional)	018/366/15-16	-

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

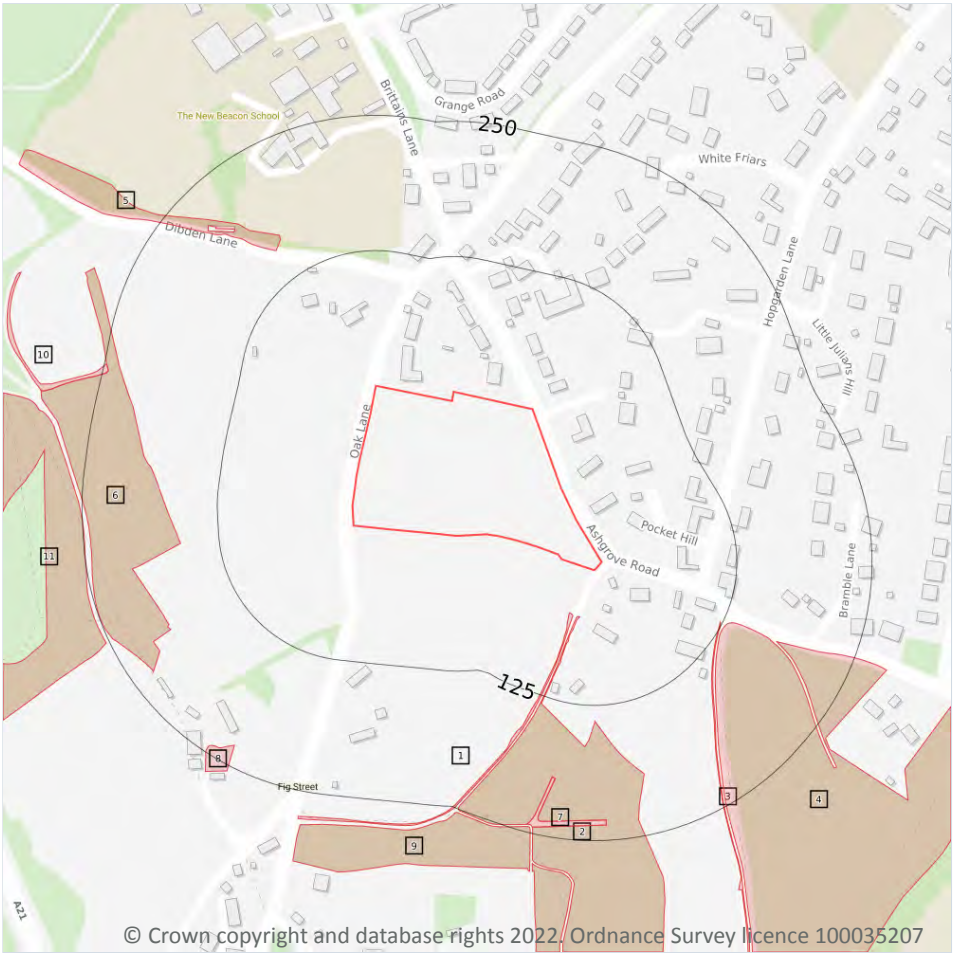
Records within 250m	1

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

Location	Reference	Scheme	Start Date	End Date
On site	**1061051**	**Countryside Stewardship (Middle Tier)**	**01/01/2021**	**31/12/2025**

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

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

13.1 Priority Habitat Inventory

Records within 250m	11

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 70**

ID	Location	Main Habitat	Other habitats
1	45m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	45m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	123m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	128m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
5	155m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	161m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	195m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	231m SW	Traditional orchard	Overruled by Traditional Orchards HAP Inventory dataset
9	245m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	245m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
11	249m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	**0**

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	**0**

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

This data is sourced from Natural England.

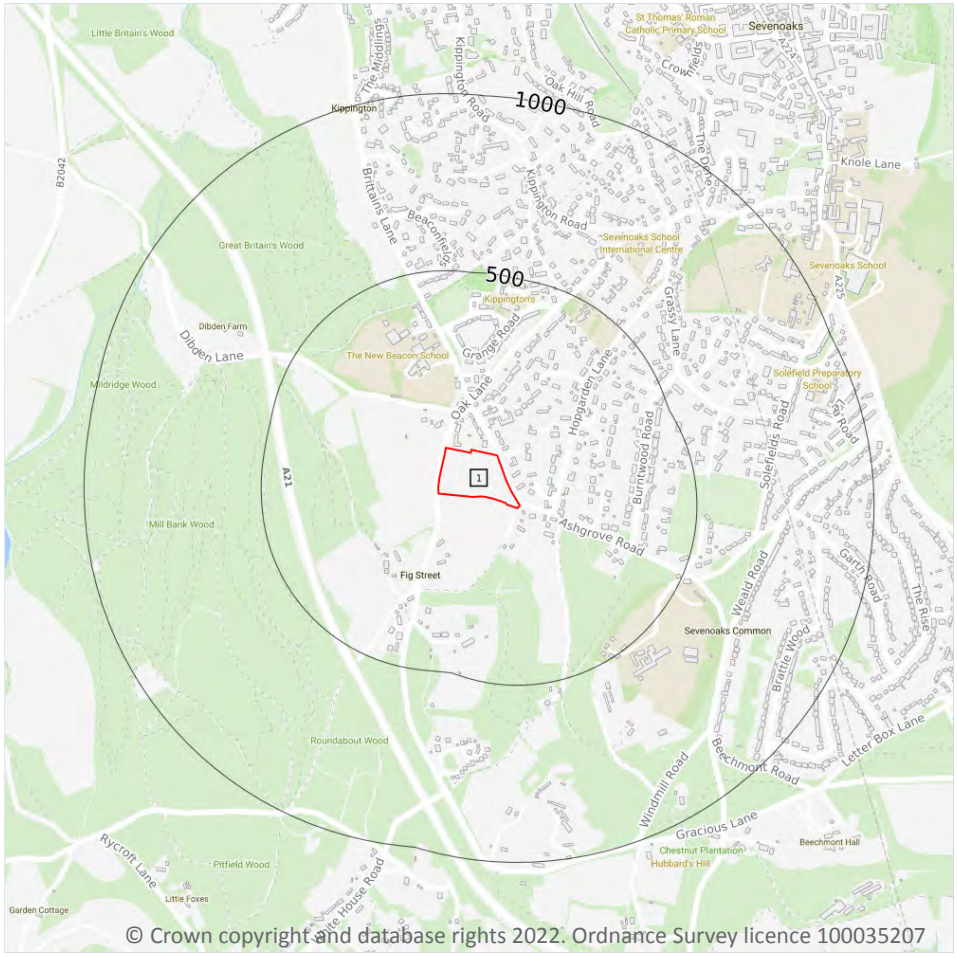
13.4 Limestone Pavement Orders

Records within 250m	**0**

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 73**

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

This data is sourced from the British Geological Survey.

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

14.2 Artificial and made ground (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

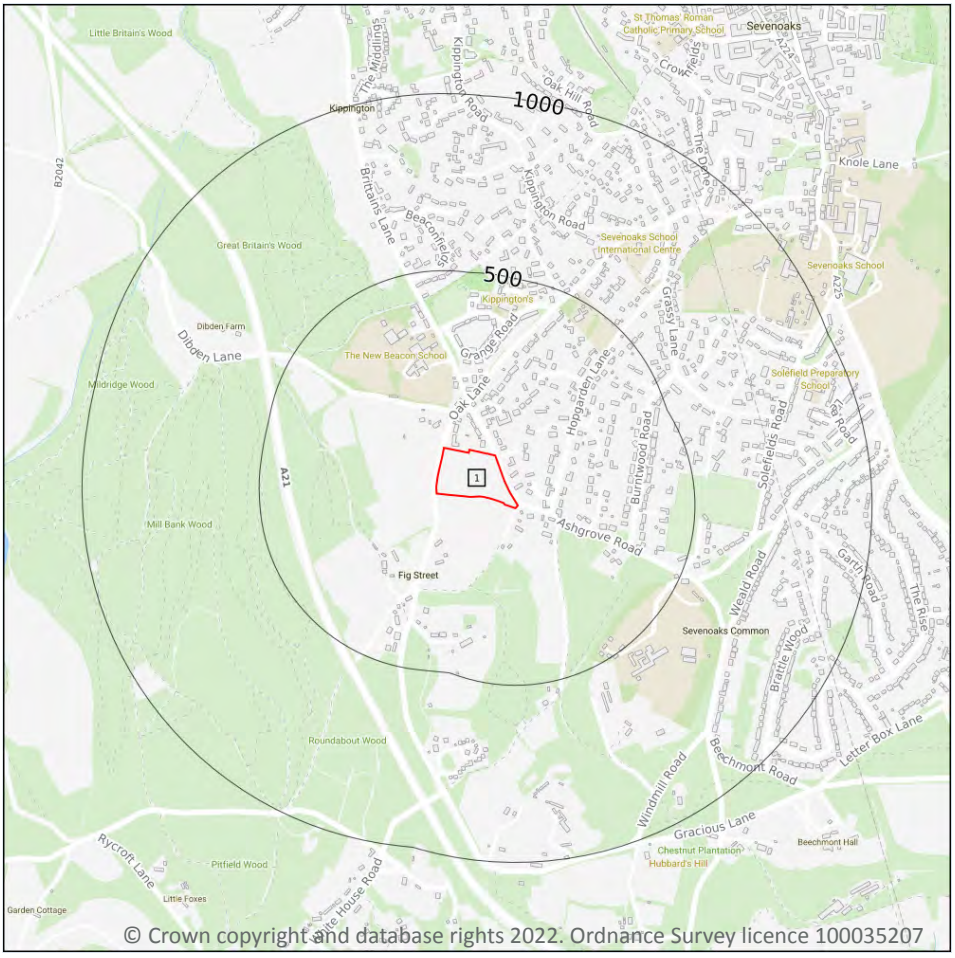
14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 77**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW287_sevenoaks_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.

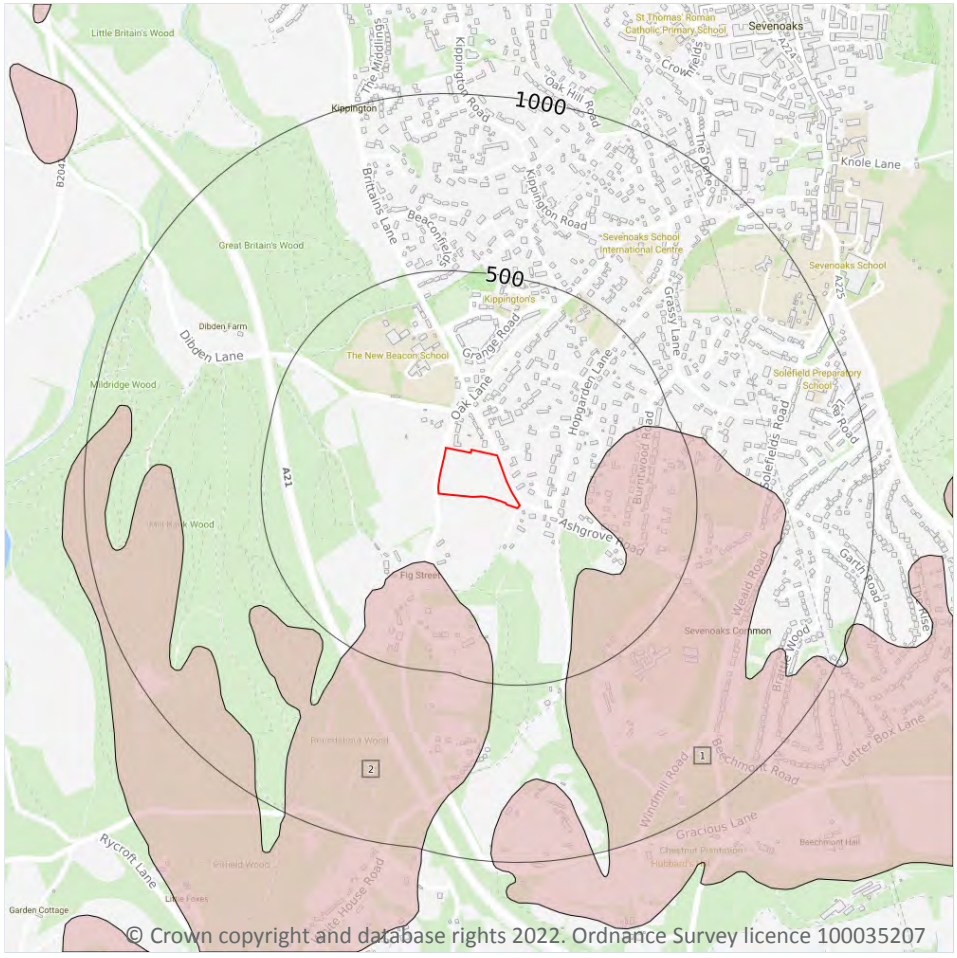
15.3 Artificial ground permeability (50k)

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 79**

ID	Location	LEX Code	Description	Rock description
1	185m E	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
2	196m S	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	0

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).

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.

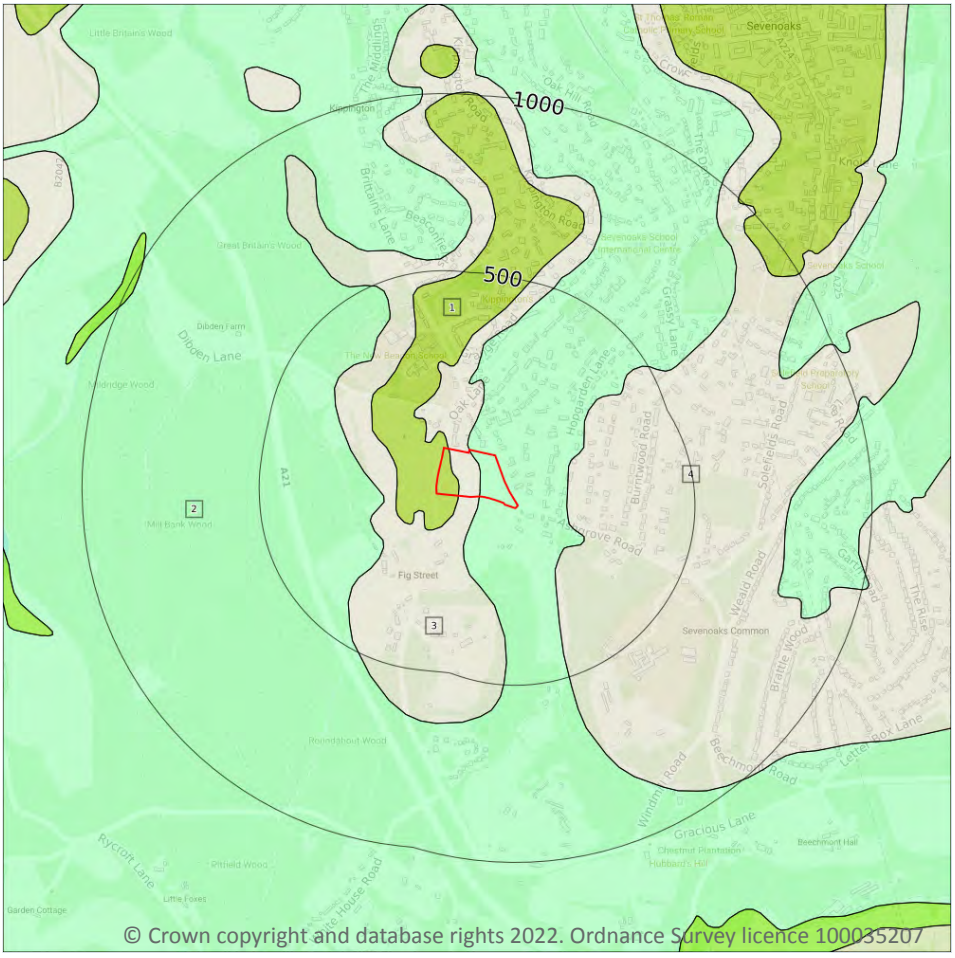
15.7 Landslip permeability (50k)

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 **4**

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 81**

ID	Location	LEX Code	Description	Rock age
1	On site	FO-SDST	FOLKESTONE FORMATION - SANDSTONE	APTIAN
2	On site	HY-SDLM	HYTHE FORMATION - SANDSTONE AND [SUBEQUAL/SUBORDINATE] LIMESTONE, INTERBEDDED	APTIAN
3	On site	SAB-STMD	SANDGATE FORMATION - SANDSTONE AND MUDSTONE	APTIAN

ID	Location	LEX Code	Description	Rock age
4	138m E	SAB-STMD	SANDGATE FORMATION - SANDSTONE AND MUDSTONE	APTIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	**3**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**High**	**High**
On site	**Mixed**	**High**	**Low**
On site	**Intergranular**	**High**	**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

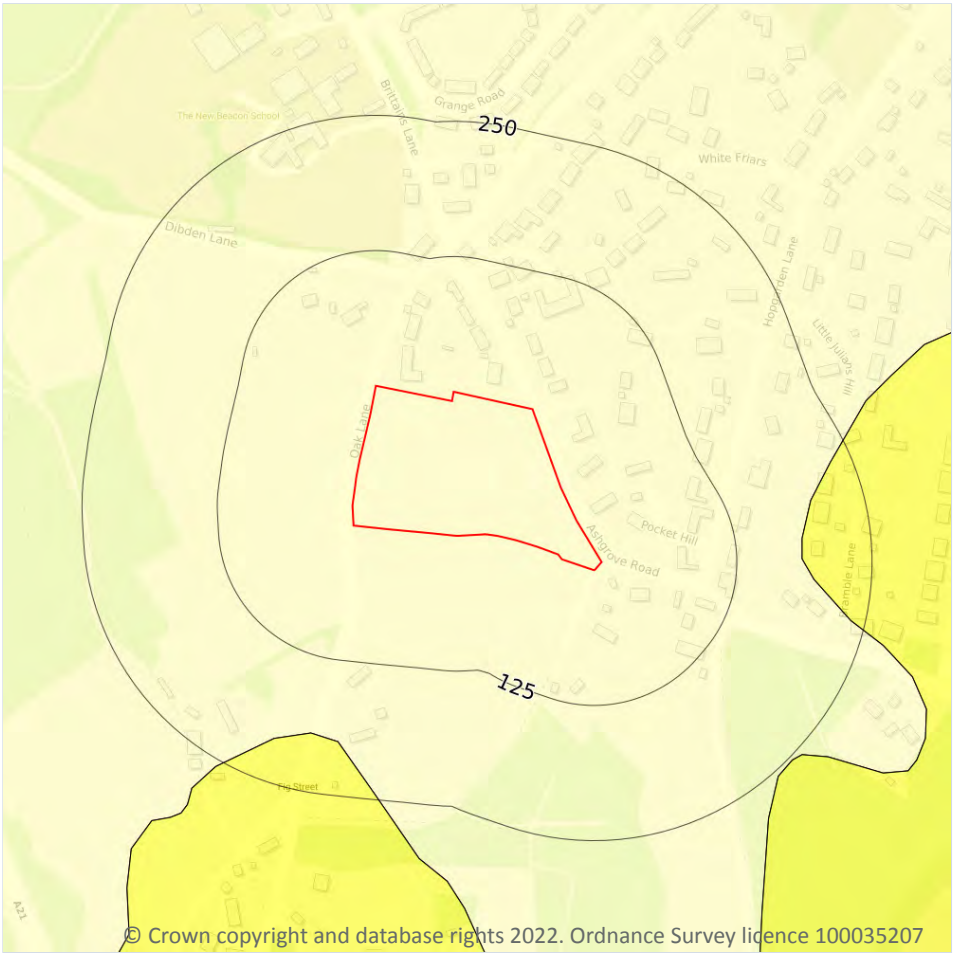
16.1 BGS Boreholes

Records within 250m	0

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

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m	1

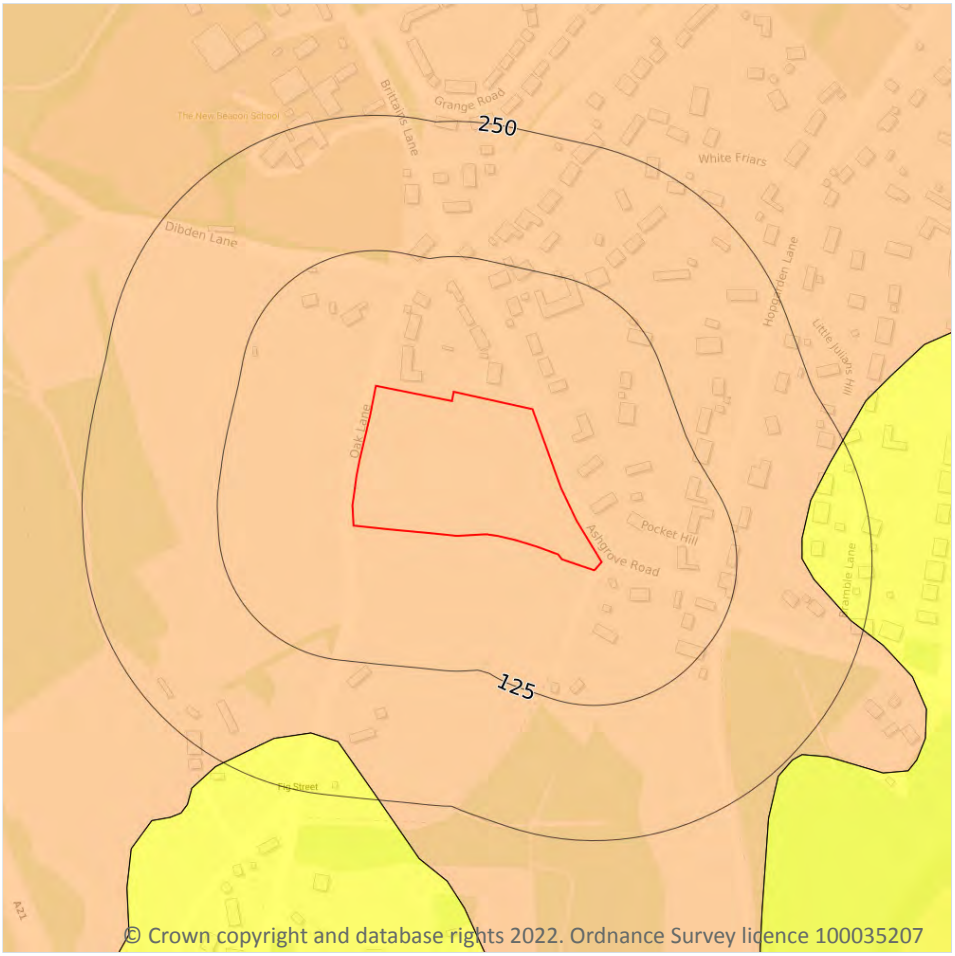
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 84**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**

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

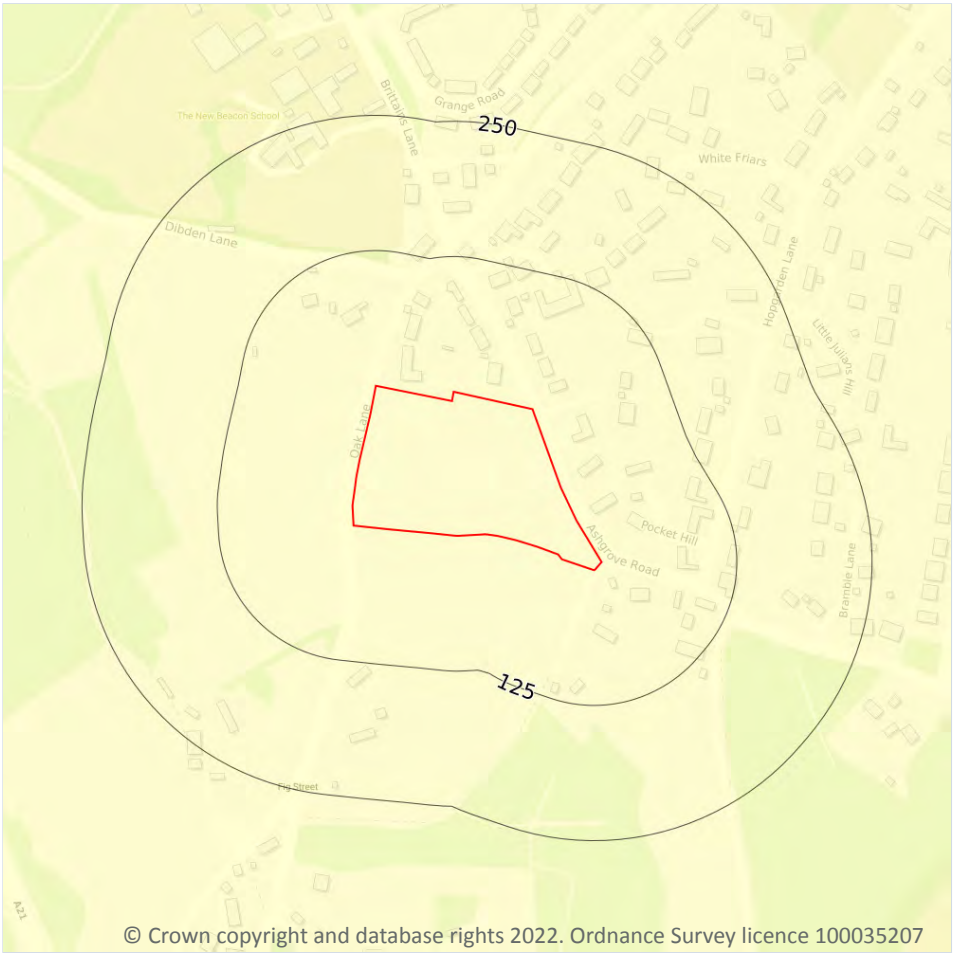
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 85**

Location	Hazard rating	Details
On site	**Low**	**Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

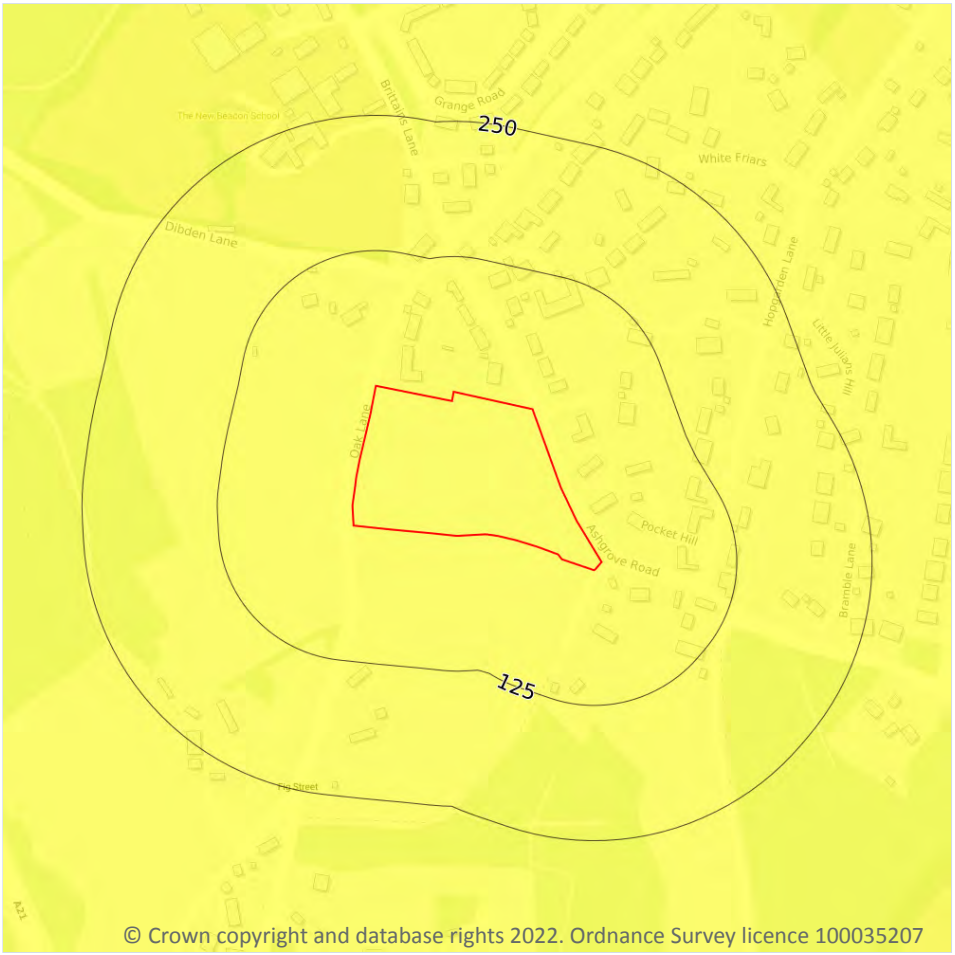
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 86**

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

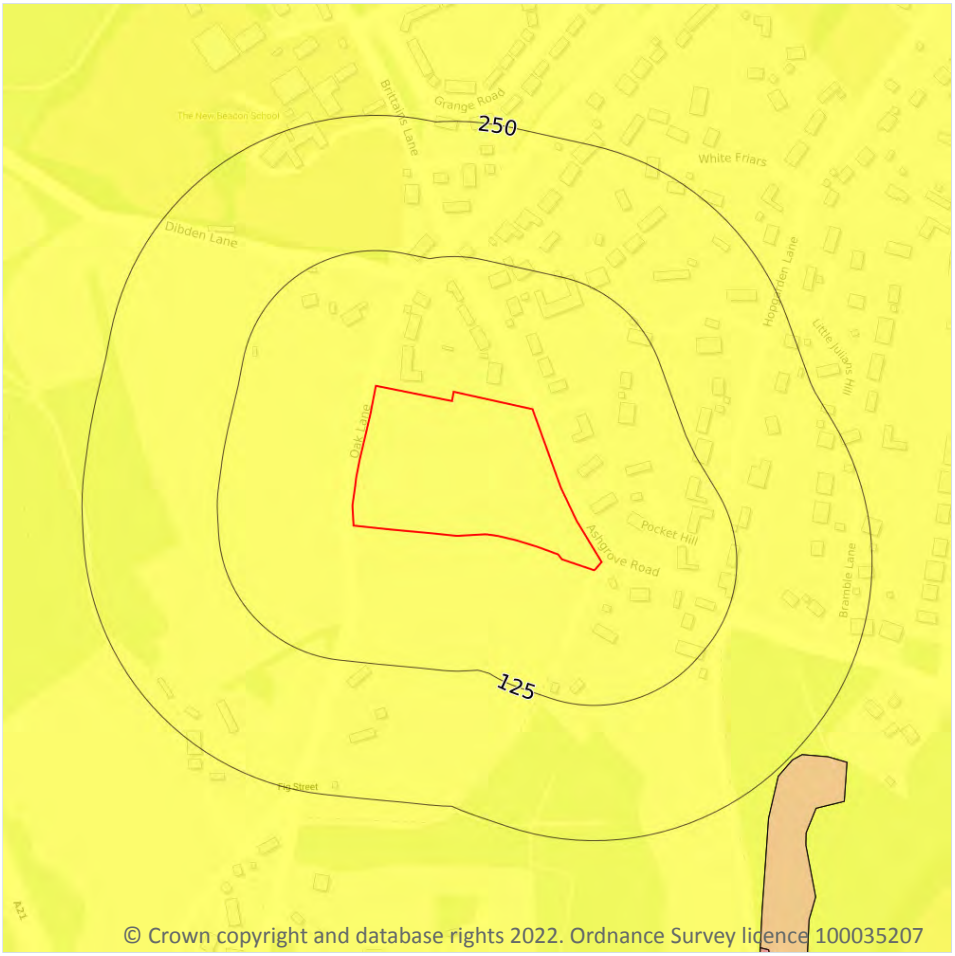
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 87**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

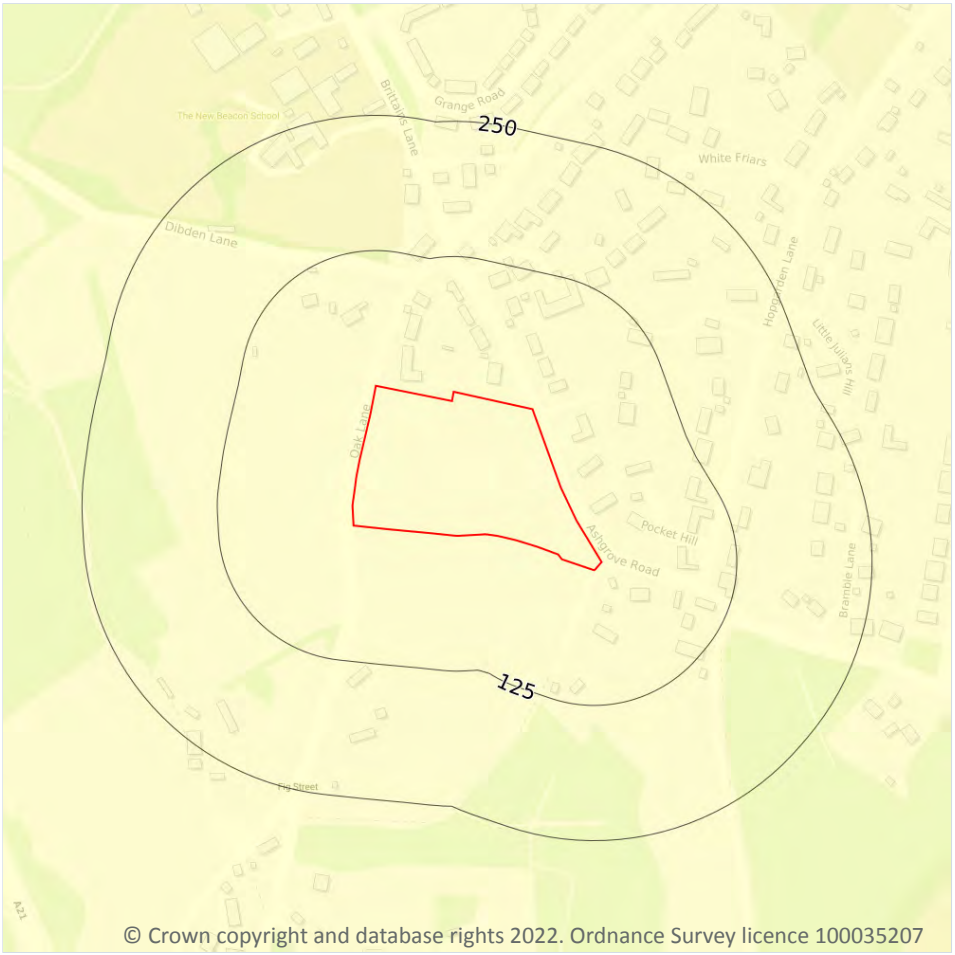
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 88**

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

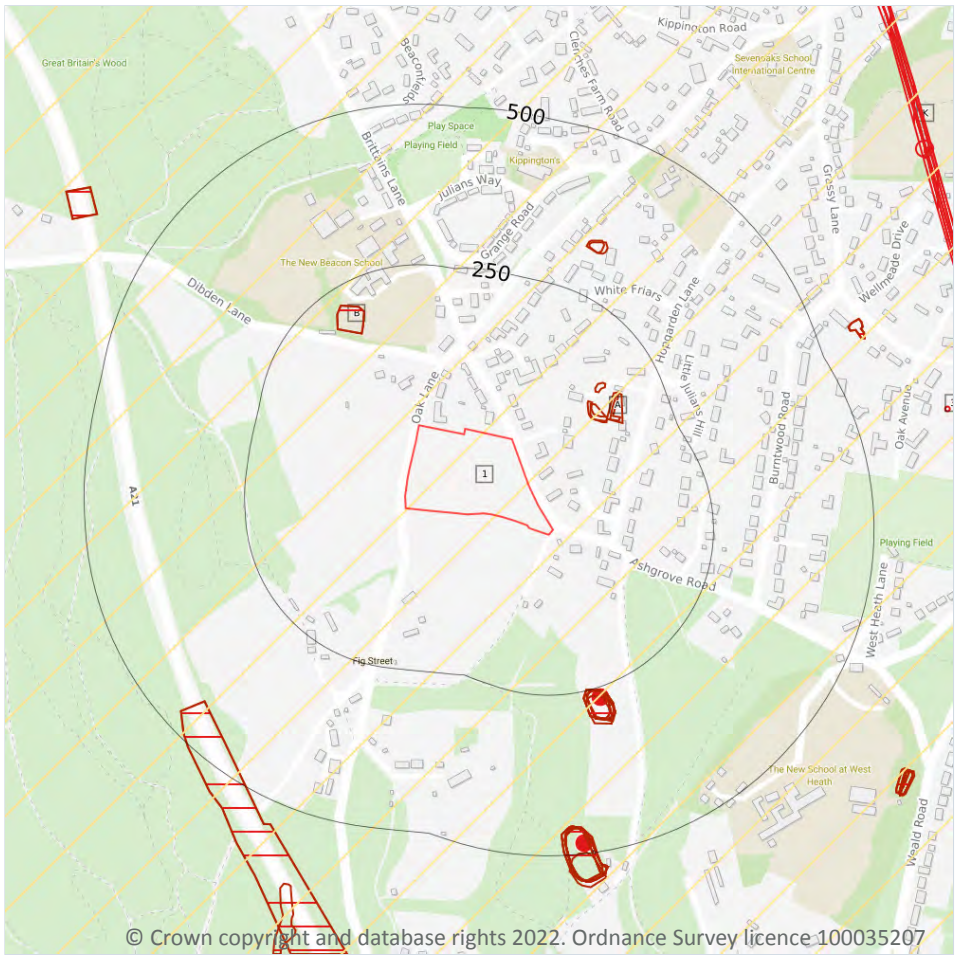
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 89**

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	2

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 90**

ID	Location	Details	Description
C	265m S	Name: Dransfield Farm Address: Sevenoaks Weald, SEVENOAKS, Kent Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
F	482m S	Name: Dransfield Farm Address: Sevenoaks Weald, SEVENOAKS, Kent Commodity: Limestone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	9

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 90**

ID	Location	Land Use	Year of mapping	Mapping scale
A	126m E	Unspecified Ground Workings	1955	1:10560
A	128m E	Unspecified Pit	1948	1:10560
A	150m NE	Unspecified Ground Workings	1948	1:10560
A	154m E	Unspecified Pit	1948	1:10560
B	168m NW	Unspecified Ground Workings	1938	1:10560
B	168m NW	Unspecified Ground Workings	1938	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
C	249m S	Unspecified Pit	1974	1:10000
C	249m S	Unspecified Pit	1955	1:10560
C	249m S	Unspecified Pit	1971	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	**45**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 90**

ID	Location	Land Use	Year of mapping	Mapping scale
3	639m E	Air Shaft	1869	1:10560
J	714m E	Tunnel	1955	1:10560
K	716m E	Tunnel	1938	1:10560
K	716m E	Tunnel	1907	1:10560
K	716m E	Tunnel	1895	1:10560
-	717m E	Air Shaft	1907	1:10560
-	717m E	Air Shaft	1895	1:10560
J	721m E	Tunnel	1974	1:10000
J	721m E	Tunnel	1971	1:10560
-	722m E	Air Shaft	1974	1:10000
-	722m E	Air Shaft	1971	1:10560
-	741m E	Tunnel	1938	1:10560
-	741m E	Tunnel	1907	1:10560
-	741m E	Tunnel	1895	1:10560
-	755m E	Air Shaft	1869	1:10560
-	758m E	Air Shaft	1955	1:10560
-	762m E	Air Shaft	1974	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
-	762m E	Air Shaft	1971	1:10560
-	765m E	Air Shaft	1938	1:10560
-	765m E	Air Shaft	1907	1:10560
-	765m E	Air Shaft	1895	1:10560
K	773m NE	Air Shaft	1955	1:10560
K	778m NE	Air Shaft	1869	1:10560
K	783m NE	Air Shaft	1938	1:10560
K	783m NE	Air Shaft	1907	1:10560
K	783m NE	Air Shaft	1895	1:10560
K	786m NE	Air Shaft	1974	1:10000
K	786m NE	Air Shaft	1971	1:10560
-	839m E	Air Shaft	1955	1:10560
-	842m E	Air Shaft	1869	1:10560
-	843m E	Air Shaft	1974	1:10000
-	843m E	Air Shaft	1971	1:10560
-	845m E	Air Shaft	1938	1:10560
-	845m E	Air Shaft	1907	1:10560
-	845m E	Air Shaft	1895	1:10560
-	898m NE	Air Shaft	1869	1:10560
-	908m NE	Air Shaft	1907	1:10560
-	908m NE	Air Shaft	1895	1:10560
-	951m SE	Air Shaft	1955	1:10560
-	955m SE	Air Shaft	1869	1:10560
-	955m SE	Air Shaft	1974	1:10000
-	955m SE	Air Shaft	1971	1:10560
-	958m SE	Air Shaft	1938	1:10560
-	958m SE	Air Shaft	1907	1:10560
-	958m SE	Air Shaft	1895	1:10560

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	1

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 90**

ID	Location	Name	Commodity	Class	Likelihood
1	**On site**	**Not available**	**Sand**	**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 Groundsure.

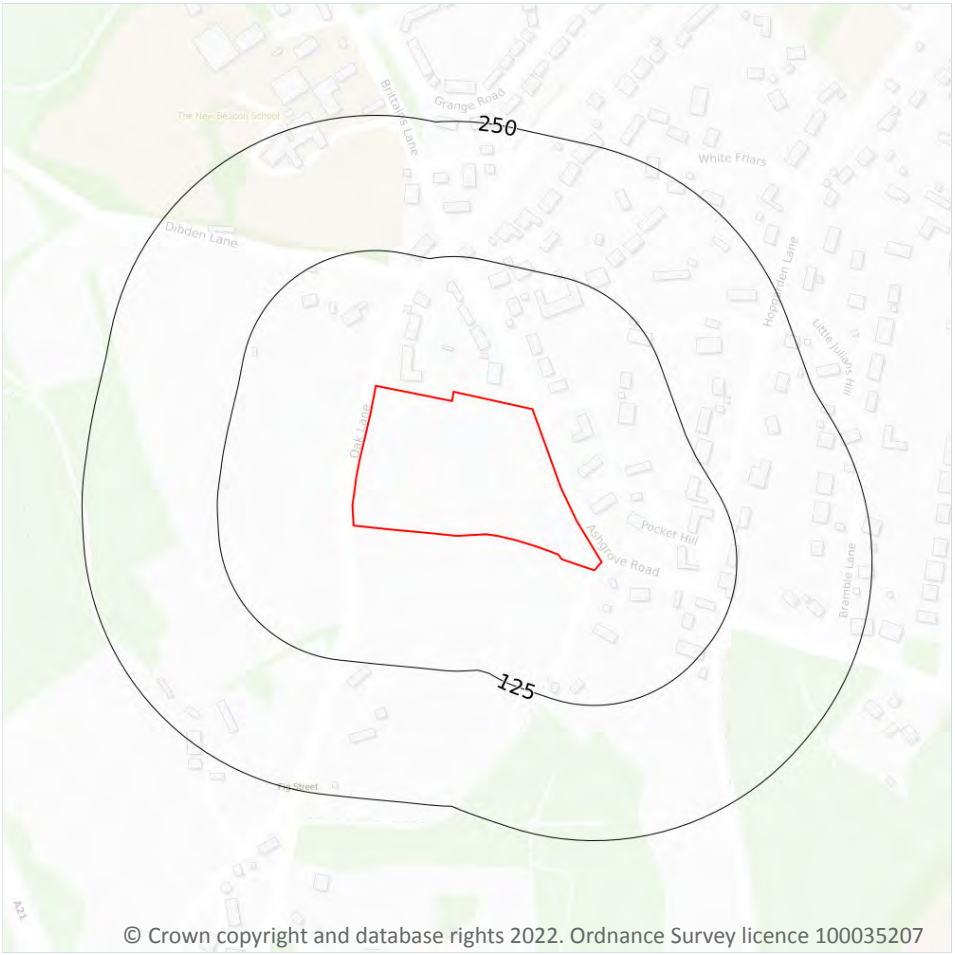
18.13 Clay mining

Records on site	0

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

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

19 Radon



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 96**

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	**6**

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**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
14m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
16m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
20m NE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

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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