PHASE 1 DESK STUDY AND PHASE 2 SITE INVESTIGATION REPORT

Site

FRESH ACRES NURSERY, YAPTON LANE, WALBERTON, WEST SUSSEX BN18 0AS

Client

KEEP IT SAFE STORAGE

Report Ref

20/11865/KJC REV 1

Issued

JULY 2020

ALBURY S.I. LTD

Geotechnical and Environmental Consultants

Miltons Yard, Petworth Road,
Witley, Surrey GU8 5LH

[redacted]

ARUN DISTRICT COUNCIL Y/63/20/DOC

DOCUMENT CONTROL			
Report Title	Phase 1 Desk Study and Phase 2 Site Investigation Report		
Contract	Yapton Lane, Walberton		
Report Reference	20/11865/KJC		
Client	Keep It Safe Storage		
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Reviewed by	**G C D Owens** BSc MSc FGS MIEnvSc Director		
Revision No.	Status	Date of Issue	Final Issue Check
0	Final	13/07/2020	
1	Final	08/09/2020	[redacted]

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This Report is prepared for the specific purpose stated and in relation to the development proposals or usage indicated to Albury S.I. Limited at the time of preparation. The recommendations should not be used for adjacent schemes and may not be appropriate for alternative proposals.

The recommendations made and opinions expressed in this Report are based on the strata conditions revealed by the fieldworks as indicated on the exploratory records, together with an assessment of the data from in situ and laboratory tests. No liability can be accepted for conditions which have not been revealed by the fieldworks, for example, between exploratory positions. While this Report may offer opinions on the possible configuration of strata, both between the excavations and below the maximum depth achieved by the investigation, these comments are for guidance only and no liability can be accepted for their accuracy. The data obtained relate to the conditions which are relevant at the time of the investigation.

The groundwater observations entered on exploratory records are those noted at the time of the investigation. The normal rate of progress does not usually permit the recording of any equilibrium water level for any one water strike. It should be noted that groundwater levels are prone to seasonal variation and to changes in local drainage conditions. The word 'none' indicates that groundwater was sealed off by the borehole casing or that no water was observed in the exploratory hole upon completion.

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REPORT REF: 20/11865/KJC REV 1
CONTRACT: YAPTON LANE, WALBERTON

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1 INTRODUCTION

Albury S.I. Ltd was approached by the Client to provide a combined Phase 1 and Phase 2 geo-environmental assessment of the site to assist in the discharge of planning conditions. This includes a Phase 1 Desk Study and walkover survey with a subsequent Phase 2 intrusive investigation.

1.1 Phase One Objectives

The Desk Study comprises a review of the readily available geological, historical and environmental sources for information about the site, together with a walkover survey of the area. This includes the commissioning of an Enviro+Geo Insight report supplied by Groundsure Ltd. This report presents the findings of the Desk Study together with an outline Conceptual Site Model and preliminary risk assessment, based upon identified potential sources of contamination which may pose a significant risk to receptors or end-users of the site.

In preparing this report reference has been made to relevant guidance which includes the 'Investigation of potentially contaminated sites. Code of Practice.' (BSI, 2011) and the EA CLR 11 report 'The Model Procedures for the Management of Land Contamination' (DEFRA and EA, 2004) and updated Land Contamination: risk management (LCRM) guidance (2019).

1.2 Scope of Phase Two Investigation

The Client proposes to develop the site for storage of containers and caravans at Yapton Lane, Walberton ("the site"). Based on the initial Desk Study, an intrusive investigation has been undertaken in order to ascertain the nature and engineering properties of the soils underlying the proposed development site and to complete a geo-environmental appraisal of the site. At the time of the site works the development area was not in use.

The programme of this investigation initially comprised the completion of a Desk Study, which includes an Enviro+Geo Insight report by Groundsure Ltd. The subsequent intrusive investigation included the construction of six boreholes using hand-held window sampling techniques. During this work samples were recovered for further examination and geochemical testing. In addition, in situ screening of samples for volatile organic compounds (VOC) was conducted.

This report describes the work undertaken, presents the information obtained and discusses the ground conditions with respect to potential contamination.

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2 PHASE ONE DESK STUDY - THE SITE

2.1 Site Location

The site covers an area of 4800m^2, is roughly 'L' shaped and is located at Ordnance Survey National grid reference 497943, 104635. The site comprises an area of unused ground within the Fresh Acres Nursery. A large residential property called Field House is present to the north of the site with Yapton Lane to the east and farmland beyond. Fresh Acres Nursery lies to the south and west.

2.2 Site Topography

The recent OS mapping indicates levels within Yapton Lane of 4.97mOD to the north east and 4.4mOD to the south east. The site itself appears relatively flat and level.

3 SITE HISTORY

3.1 Historical Mapping

The historical Ordnance Survey mapping contained within the Groundsure Data report has been reviewed. The maps reviewed are included in Appendix 1.

Table 1 - Historical Mapping Summary

Date	Source Scale	Relevant Information	
		On Site	Off Site
1876	1:2500	The site is part of a larger open area or field.	A property is present 50m to the north east with a well. Lower Farm is recorded 200m to the north east. Well noted within grounds of farm. Railway line recorded 150m to the south. Pond and water course noted 225m to the west.
1897	1:2500	No change.	Elm tree recorded on north east corner of site.
1912	1:2500	No change.	Water course to west now shown as flowing north to south. Elm tree no longer present.
1939	1:2500	No change.	Nursery now present immediately north of site.
1950	1:10560	No discernible change.	No discernible change.
1961	1:10560	No discernible change.	No discernible change.

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1966	1:10560	No discernible change.	No discernible change.
1974	1:2500	Northern part of site now occupied by a greenhouse associated with a large nursery to the south. Southern part of the site is open land.	Rectangular tank recorded 30m south/south west. The nursery to the north now comprises a single greenhouse and two buildings – one is called Greenacres. A circular tank 40m north west is present on this area. Pond to north west no longer present. Reservoir present 50m south west.
1980	1:10000	No discernible change.	Reservoir now present to north west of site.
1984	1:2500	No change.	Tank to north west no longer present. Circular tank now present 25m to the south/south west.
1992	1:2500	Building may now be present on southern part of site.	No change.
2003	1:1250	No change.	No change.
2010	1:10000	Greenhouse no longer present.	No discernible change.

*indicates partial mapping coverage

At the time of the earliest mapping the site formed part of open land and remained undeveloped until 1966-1974. The site has been part of a nursery from this time to the present day.

3.2 Aerial Imagery

The modern aerial imagery contained within Google Earth has been viewed. Any relevant details noted are presented in the table below.

Table 2 - Modern Aerials Summary

Date	Relevant Information	
	On Site	Off Site
December 2001	Site area not in use following removal of the former greenhouse. A small rectangular building is shown on the western/southern part of the site – not noted on OS map c2003.	Residential property present to north of site.
August 2002	Northern part of site cleared – appearance of bare ground.	
December 2005	A number of 'structures' appear to be present on northern part of site.	
September 2012	Northern part of site now divided in to individual plots.	
April 2015	Rectangular building no longer present.	
September 2019	No change.	

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4 GEOLOGY

4.1 Published Geology

An examination of the 1:50,000 British Geological Survey digital mapping and the information contained within the Enviro+Geo Insight report has been completed. The site is underlain by River Terrace Deposits of Recent age. At depth the London Clay Formation of Eocene age is present.

4.2 Historical Borehole Records

The records of the BGS have been reviewed. No relevant records have been found within 250m of the site.

4.3 Hydrogeology

The site is underlain by a superficial Secondary (A) aquifer associated with the underlying River Terrace Deposits. The London Clay Formation at depth is a non-aquifer or unproductive stratum. The site is not underlain by a drinking water Source Protection Zone [SPZ]. There are two surface water abstraction licences 113m south west (Todhurst Rife) and 189m west Binstead Rife). There are also two groundwater abstraction licences 425m and 590m north west of the site.

4.4 Radon

The Enviro+Geo Insight report indicates that the site is in a radon affected area as between 1% and 3% of properties are above the action level. However, no protective measures as described in BRE report BR211 are necessary in the construction of new properties or extensions.

5 ENVIRONMENTAL SETTING

5.1 Hydrology & Flood Risk

An inland river is recorded 149m to the south and 161m to the west of the site. A further inland river is noted 216m north. The site is not at risk from flooding from rivers. Although historic flooding was recorded on 1st November 1987 85m south east of the site. There is a moderate-high risk of flooding from groundwater.

5.2 Landfill Data

There are no active or inactive registered landfill sites listed in the Enviro+Geo Insight report.

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5.3 Recent & Current Land Use

The site has been part of a nursery for the past 50 years. No other historical trade directory information is listed for the site or immediate vicinity. However, a motor repair garage is noted to the south of the site. An above ground tank, as indicated on the site plan, is recorded 25m south/south-west of the development area, which is used for gas oil (heating).

5.4 Ecologically Sensitive Receptors

There are no sensitive environmental or ecological receptors highlighted within the Enviro+Geo Insight report within the vicinity of the site.

6 SITE RECONNAISSANCE

A visit to site was made on 23rd June 2020, when observations were made using the procedures outlined in CLR 2. At the time of the survey the conditions were dry and sunny.

The majority of the site is covered by shingle. A former greenhouse is present to the west. A row of mature conifer trees form the northern boundary, with Yapton Lane present to the east. Concrete surfacing with a warehouse, MOT testing station and motor repair garage are present to the south. An above ground tank is present 25m south/south-west of the site and is protected with a bund. A photograph of the tank is included in Figure 4, confirming its position relative to the development area

The existing layout is shown in Figure 1 with the proposed layout included as Figure 2. During the visit a number of photographs were taken and these are presented as Figure 3 attached to this report.

7 PRELIMINARY RISK ASSESSMENT

7.1 Conceptual Site Model

In accordance with the report CLR 11 a Conceptual Model has been prepared for this site. The model prepared for the site in tabular format below lists potential sources of contamination, identified receptors on and within the immediate vicinity of the site, together with the pathways between them. A pathway must exist for an identified source to pose a risk to a receptor, thereby forming an active pollutant linkage. The primary receptors are considered to be future residents (human health), surrounding ecology (plants and animals), controlled waters and proposed buildings.

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A qualitative assessment of the risk of each potential pollutant linkage is given based upon the CIRIA guidance document 'Contaminated Land Risk Assessment: A Guide to Good Practice' (Rudland, Lancefield and Mayell, 2001). The risk is a combination of the probability or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence.

Table 3 - Preliminary Conceptual Site Model

Source(s)	Potential Pathway(s)	Receptor(s)	Risk Level
Previous use of the site and possible presence of made ground - *general contamination* Heavy metal based pesticides (e.g. Lead-Arsenate, creosote washes) Former Glasshouses - *glass fragments (physical sharps)*	Inhalation, ingestion and dermal contact	Site workers and end users	Low to moderate
Off-site above ground tanks and motor repairs garage - petroleum hydrocarbons	Lateral migration via shallow superficial groundwater table	Site workers	Low

Principally, contaminants are likely to be present associated with the former usage as a Nursery. Any organic pesticides which may have been used are likely to have degraded with time. However, metal based pesticides can accumulate and persist in the shallow soils.

7.2 Further Investigation

It would be prudent to carry out a limited intrusive investigation to prove the underlying natural soils, assess the thickness of made ground and confirm that the soils are suitable for their intended use. The proposed scope of testing should include for contaminants identified within the CSM.

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8 FIELDWORKS

The boreholes were constructed on 23rd June 2020 at locations as shown on the site plan, drawing no. 20/11865/1, which is presented as Figure 1. The exploratory positions were located in order to provide adequate site coverage.

The depths and descriptions of the strata encountered in the boreholes are given on the exploratory records, which comprise Appendix 2 to this report. These records note the depths at which samples were taken, the results of in situ tests and the groundwater observations noted at the time of the fieldworks.

9 GROUND CONDITIONS

9.1 Stratigraphy

Consideration of the borehole records indicates that made ground varying in composition from shingle overlying matting to brown sand with gravel was noted at the investigatory locations and was proved to depths of between 0.3m to 0.8m.

Soils varying from brown sandy clay with gravel to orange-brown silty sand were encountered beneath the made ground and were shown to extend to the full depth of this investigation at 2.1m. These soils are thought to be associated with the River Terrace Deposits.

9.2 Groundwater

During the construction of the exploratory positions no groundwater strikes were encountered. Consequently, all the exploratory boreholes remained dry upon completion and prior to backfilling.

9.3 In Situ Testing

During the sampling measurement of soil vapours [VOC] was carried out on the samples of the soils taken using a PhoCheck Tiger PID meter. The composite sample is placed within a sealed plastic bag with a limited air space (headspace) which allows vapours to enter following agitation of the sample bag. The headspace is then measured using the PID meter and the results recorded in ppm as an indicative total VOC. The maximum TVOC recorded during this work was 0.5ppm, which is typical of normal background concentrations. Moreover, no visual or olfactory evidence of contamination was apparent during the sampling.

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10 GEOCHEMICAL TESTING

Selected samples of the made ground have been submitted to the UKAS accredited laboratories operated by i2 Analytical Ltd. The testing comprises a suite of typical inorganic and organic priority contaminants including metals, PAH, TPH CWG and an asbestos screen. The results are included in Appendix 3.

11 GROUND CONTAMINATION

11.1 Human Health

A preliminary assessment of the chronic or long-term risk to human health from soil contamination has been made using the available generic screening criteria. The screening values include the Category 4 Screening Levels [C4SLs] (DEFRA, 2014) and Suitable for Use Levels [S4ULs] (LQM/CIEH, 2014) derived using the CLEA software. It should be appreciated that these do not consider the short-term or acute risks, such as to construction workers or SI personnel.

The proposed use is commercial. The test results have been compared against the LQM S4UL and, where appropriate, C4SL generic assessment criteria [GAC] for this category and 1% SOM. No contamination has been identified and no remedial measures are considered necessary.

11.2 Vegetation

The metals boron, copper, nickel and zinc are phytotoxic at certain levels, with their availability being dependent upon soil pH. These levels may not pose a significant long-term health risk to humans, but could be detrimental to plant growth or function. The results obtained suggest that problems in this regard are not anticipated.

11.3 Preliminary Waste Assessment

It is likely that, if excavated soils cannot be re-used or retained on site, these surplus materials will require off site disposal. It may be possible to divert the unwanted material to a soil treatment hub where it can be recycled. Where material cannot be re-used or recycled then disposal at a licensed landfill site can be considered. It will then be necessary to classify the spoil as inert, non-hazardous or hazardous. A discussion of the current regime for the classification and treatment of waste soils is included in Appendix 4.

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An initial assessment of the geochemical results obtained from this investigation has been carried out to provide a preliminary classification of the surplus materials. The Atkins CAT-WASTE tool determines whether waste soil should be classified as being non-hazardous or hazardous. The output from the CAT-WASTE assessment is located in Appendix 4. Asbestos was not detected in any of the samples screened. Based on the output waste soil arisings from this site have been tentatively identified as being non-hazardous waste. The underlying natural soils are considered to be inert for disposal purposes.

This assessment is preliminary and based upon the information obtained from the investigation. Where made ground is excavated then these materials should be stockpiled and segregated. Further sampling, testing and characterisation to accurately classify waste soil arisings may be required.

It should be appreciated that it is the responsibility of the waste producer to sufficiently characterise their waste. Moreover, the agreement of the waste acceptor should be sought. If significant quantities of inert material is to be disposed at a licensed waste landfill site then supplementary waste acceptance criteria [WAC] testing may also be required. Confirmation should be sought from the relevant licensed waste handler or landfill operator.

11.4 Watching Brief

During the groundworks phase of the development, a designated representative of the main contractor should be responsible for the implementation of a discovery strategy. This would comprise regular inspection of all excavations. If any materials suspected of containing contamination are identified then these materials or areas should be segregated and stockpiled for further investigation by a suitably qualified individual, to determine whether additional remedial measures are required.

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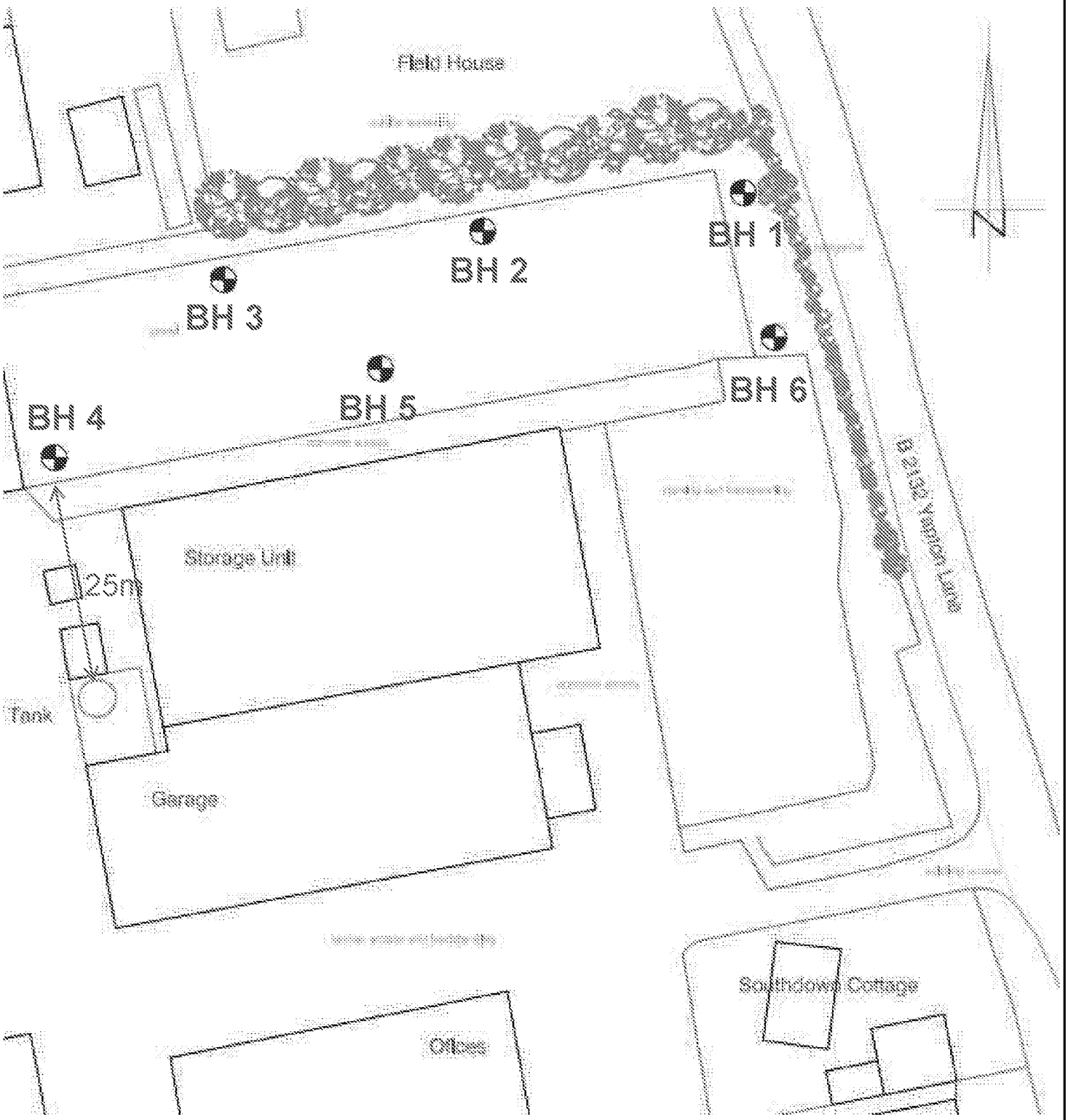
LIST OF ABBREVIATIONS

AOD	-	Above Ordnance Datum
ACM	-	Asbestos-containing Material
AST	-	Above-ground Storage Tank
BGS	-	British Geological Survey
BH	-	Borehole
BRE	-	Building Research Establishment
BSI	-	British Standards Institution
BS	-	British Standard
C4SL	-	Category Four Screening Level
CIRIA	-	Construction Industry Research and Information Association
CP	-	Cable Percussive
DPH	-	Dynamic Probing Heavy
DPSH	-	Dynamic Probing Super Heavy
EA	-	Environment Agency
GAC	-	Generic Assessment Criteria
LL	-	Liquid Limit
mAOD	-	Metres Above Ordnance Datum
mBGL	-	Metres Below Ground Level
mOD	-	Metres Ordnance Datum
OS	-	Ordnance Survey
PAH	-	Polycyclic Aromatic Hydrocarbons
PCB	-	Polychlorinated Biphenyl
PID	-	Photo Ionisation Detector
PL	-	Plastic Limit
PSD	-	Particle Size Distribution
SGV	-	Soil Guideline Value
SOM	-	Soil Organic Matter
SPT	-	Standard Penetration Test
SPZ	-	Source Protection Zone
SVOC	-	Semi-volatile Organic Compounds
TPH	-	Total Petroleum Hydrocarbon
UST	-	Underground Storage Tank
UXB	-	Unexploded Bombs
UXO	-	Unexploded Ordnance
VOC	-	Volatile Organic Compound

FIGURE 1

SITE LAYOUT PLAN

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Title:	Site Layout Plan (Existing)
Dwg No:	20/11865/1
Client:	Keep It Safe Storage
Contract:	Yapton Lane, Walberton
Job Ref:	20/11865/KJC
Scale:	NTS
Revision:	1
Issue Date:	08/09/2020

Legend:

Borehole Location

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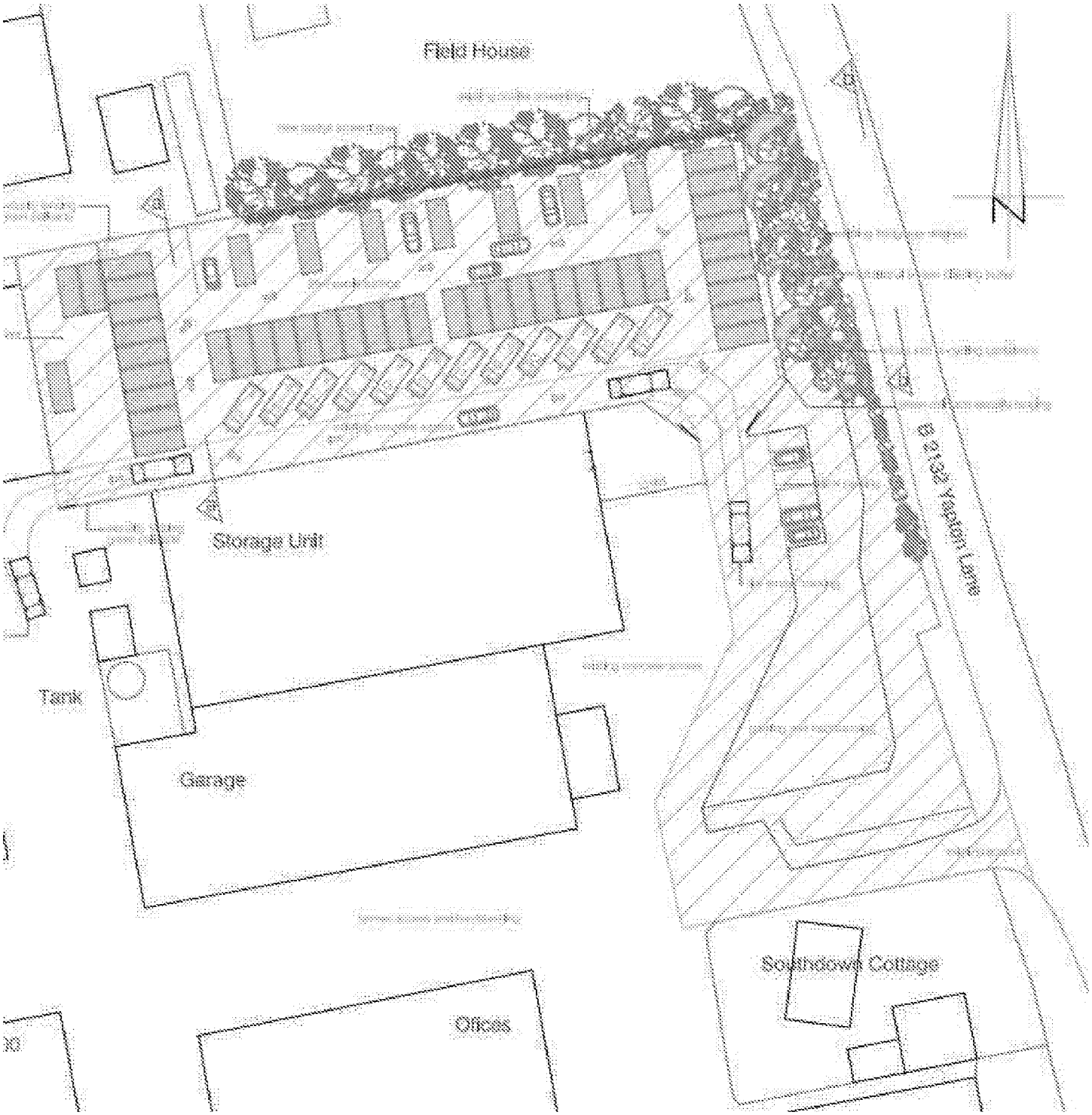
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Witley,
Surrey GU8 5LH

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FIGURE 2

PROPOSED LAYOUT

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Title:	Proposed Layout
Dwg No:	20/11865/2
Client:	Keep It Safe Storage
Contract:	Yapton Lane, Walberton
Job Ref:	20/11865/KJC
Scale:	NTS
Revision:	0
Issue Date:	13/07/2020

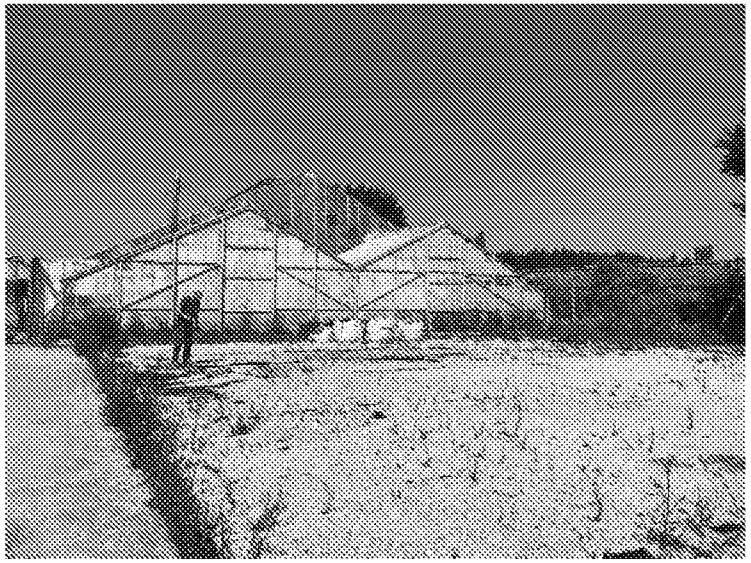
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FIGURES 3-4

SITE PHOTOGRAPHS

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Title:	Site Photographs
Dwg No:	20/11865/3
Drawn by:	KJC
Client:	Keep It Safe Storage
Contract:	Yapton Lane, Walberton
Job Ref:	20/11865/KJC
Scale:	NTS
Revision:	0
Issue Date:	13/07/2020

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Title:	Site Photographs
Dwg No:	20/11865/4
Drawn by:	KJC
Client:	Keep It Safe Storage
Contract:	Yapton Lane, Walberton
Job Ref:	20/11865/KJC
Scale:	NTS
Revision:	0
Issue Date:	03/09/2020

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APPENDIX 1

GROUNDSURE DATA

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Groundsure
LOCATION INTELLIGENCE

Enviro+Geo
Insight

FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON , BN18 0AS

Order Details

Date: 16/06/2020

Your ref: 20_11865_KJC_13675

Our Ref: GS-6797759

Client: Albury S.I. Ltd

Site Details

Location: 497943 104635

Area: 0.48 ha

Authority: Arun District Council



Summary of findings p. 2

OS MasterMap site plan p.12

Aerial image p. 8

groundsure.com/insightuserguide

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

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Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	0	2	6	11	-
14	1.2	Historical tanks	0	4	2	7	-
15	1.3	Historical energy features	0	0	2	1	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
17	2.1	Historical industrial land uses	0	2	7	13	-
18	2.2	Historical tanks	0	7	3	19	-
20	2.3	Historical energy features	0	0	4	2	-
20	2.4	Historical petrol stations	0	0	0	0	-
20	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
22	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
22	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
22	3.5	Historical waste sites	0	0	0	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
22	3.7	Waste exemptions	0	10	1	31	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
27	4.1	Recent industrial land uses	0	1	4	-	-
28	4.2	Current or recent petrol stations	0	0	0	0	-
28	4.3	Electricity cables	0	0	0	0	-
28	4.4	Gas pipelines	0	0	0	0	-
28	4.5	Sites determined as Contaminated Land	0	0	0	0	-

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29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.7	Regulated explosive sites	0	0	0	0	-
29	4.8	Hazardous substance storage/usage	0	0	0	0	-
29	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
29	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
30	4.12	Radioactive Substance Authorisations	0	0	0	0	-
30	**4.13**	**Licensed Discharges to controlled waters**	0	0	1	0	-
30	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
31	4.16	List 1 Dangerous Substances	0	0	0	0	-
31	4.17	List 2 Dangerous Substances	0	0	0	0	-
31	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
31	4.19	Pollution inventory substances	0	0	0	0	-
32	4.20	Pollution inventory waste transfers	0	0	0	0	-
32	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
33	**5.1**	**Superficial aquifer**	Identified (within 500m)				
35	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
37	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
38	**5.4**	**Groundwater vulnerability- soluble rock risk**	Identified (within 0m)				
38	5.5	Groundwater vulnerability- local information	None (within 0m)				
39	**5.6**	**Groundwater abstractions**	0	0	0	1	11
42	**5.7**	**Surface water abstractions**	0	0	2	0	4
44	5.8	Potable abstractions	0	0	0	0	0
44	5.9	Source Protection Zones	0	0	0	0	-
44	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
45	**6.1**	**Water Network (OS MasterMap)**	0	0	9	-	-

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46	6.2	Surface water features	0	0	11	-	-
47	6.3	WFD Surface water body catchments	1	-	-	-	-
47	6.4	WFD Surface water bodies	0	0	0	-	-
47	6.5	WFD Groundwater bodies	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
48	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
49	7.2	Historical Flood Events	0	0	1	-	-
49	7.3	Flood Defences	0	0	0	-	-
49	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
49	7.5	Flood Storage Areas	0	0	0	-	-
50	7.6	Flood Zone 2	None (within 50m)				
50	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
51	8.1	Surface water flooding	1 in 250 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
53	9.1	Groundwater flooding	Moderate-High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
54	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
55	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
55	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
55	10.4	Special Protection Areas (SPA)	0	0	0	0	0
55	10.5	National Nature Reserves (NNR)	0	0	0	0	0
56	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
56	10.7	Designated Ancient Woodland	0	0	0	0	16
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	0	0	0	0	0
57	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
58	**10.16**	**Nitrate Vulnerable Zones**	0	0	0	1	2
60	**10.17**	**SSSI Impact Risk Zones**	2	-	-	-	-
61	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
62	11.1	World Heritage Sites	0	0	0	-	-
62	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
62	11.3	National Parks	0	0	0	-	-
62	11.4	Listed Buildings	0	0	0	-	-
63	11.5	Conservation Areas	0	0	0	-	-
63	11.6	Scheduled Ancient Monuments	0	0	0	-	-
63	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
64	**12.1**	**Agricultural Land Classification**	Grade 2 (within 250m)				
65	12.2	Open Access Land	0	0	0	-	-
65	12.3	Tree Felling Licences	0	0	0	-	-
65	12.4	Environmental Stewardship Schemes	0	0	0	-	-
66	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
67	13.1	Priority Habitat Inventory	0	0	0	-	-
67	13.2	Habitat Networks	0	0	0	-	-
67	13.3	Open Mosaic Habitat	0	0	0	-	-
67	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
68	**14.1**	**10k Availability**	Identified (within 500m)				
69	14.2	Artificial and made ground (10k)	0	0	0	0	-
70	**14.3**	**Superficial geology (10k)**	2	0	3	2	-

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71	14.4	Landslip (10k)	0	0	0	0	-
72	14.5	Bedrock geology (10k)	1	0	2	1	-
73	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
74	15.1	50k Availability	Identified (within 500m)				
75	15.2	Artificial and made ground (50k)	0	0	0	0	-
75	15.3	Artificial ground permeability (50k)	0	0	-	-	-
76	15.4	Superficial geology (50k)	2	0	3	0	-
77	15.5	Superficial permeability (50k)	Identified (within 50m)				
77	15.6	Landslip (50k)	0	0	0	0	-
77	15.7	Landslip permeability (50k)	None (within 50m)				
78	15.8	Bedrock geology (50k)	1	0	2	0	-
79	15.9	Bedrock permeability (50k)	Identified (within 50m)				
79	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
80	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence					
81	17.1	Shrink swell clays	Low (within 50m)				
82	17.2	Running sands	Low (within 50m)				
84	17.3	Compressible deposits	Negligible (within 50m)				
85	17.4	Collapsible deposits	Low (within 50m)				
86	17.5	Landslides	Very low (within 50m)				
87	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
88	18.1	Natural cavities	0	0	0	0	-
89	18.2	BritPits	0	0	0	0	-
89	18.3	Surface ground workings	0	0	4	-	-
89	18.4	Underground workings	0	0	0	0	0
89	18.5	Historical Mineral Planning Areas	0	0	0	0	-

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90	18.6	Non-coal mining	0	0	0	0	0
90	18.7	Mining cavities	0	0	0	0	0
90	18.8	JPB mining areas	None (within 0m)				
90	18.9	Coal mining	None (within 0m)				
90	18.10	Brine areas	None (within 0m)				
91	18.11	Gypsum areas	None (within 0m)				
91	18.12	Tin mining	None (within 0m)				
91	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
92	19.1	Radon	Between 1% and 3% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
93	20.1	BGS Estimated Background Soil Chemistry	4	2	-	-	-
93	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
94	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
95	21.1	Underground railways (London)	0	0	0	-	-
95	21.2	Underground railways (Non-London)	0	0	0	-	-
96	21.3	Railway tunnels	0	0	0	-	-
96	21.4	Historical railway and tunnel features	0	0	0	-	-
96	21.5	Royal Mail tunnels	0	0	0	-	-
96	21.6	Historical railways	0	0	0	-	-
96	21.7	Railways	0	0	4	-	-
97	21.8	Crossrail 1	0	0	0	0	-
97	21.9	Crossrail 2	0	0	0	0	-
97	21.10	HS2	0	0	0	0	-

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Recent aerial photograph



Capture Date: 28/06/2018

Site Area: 0.48ha

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Recent site history - 2015 aerial photograph



Capture Date: 07/06/2015

Site Area: 0.48ha

ARUN DISTRICT COUNCIL Y/63/20/DOC

Recent site history - 2012 aerial photograph



Capture Date: 13/09/2012

Site Area: 0.48ha

ARUN DISTRICT COUNCIL Y/63/20/DOC

Recent site history - 1999 aerial photograph



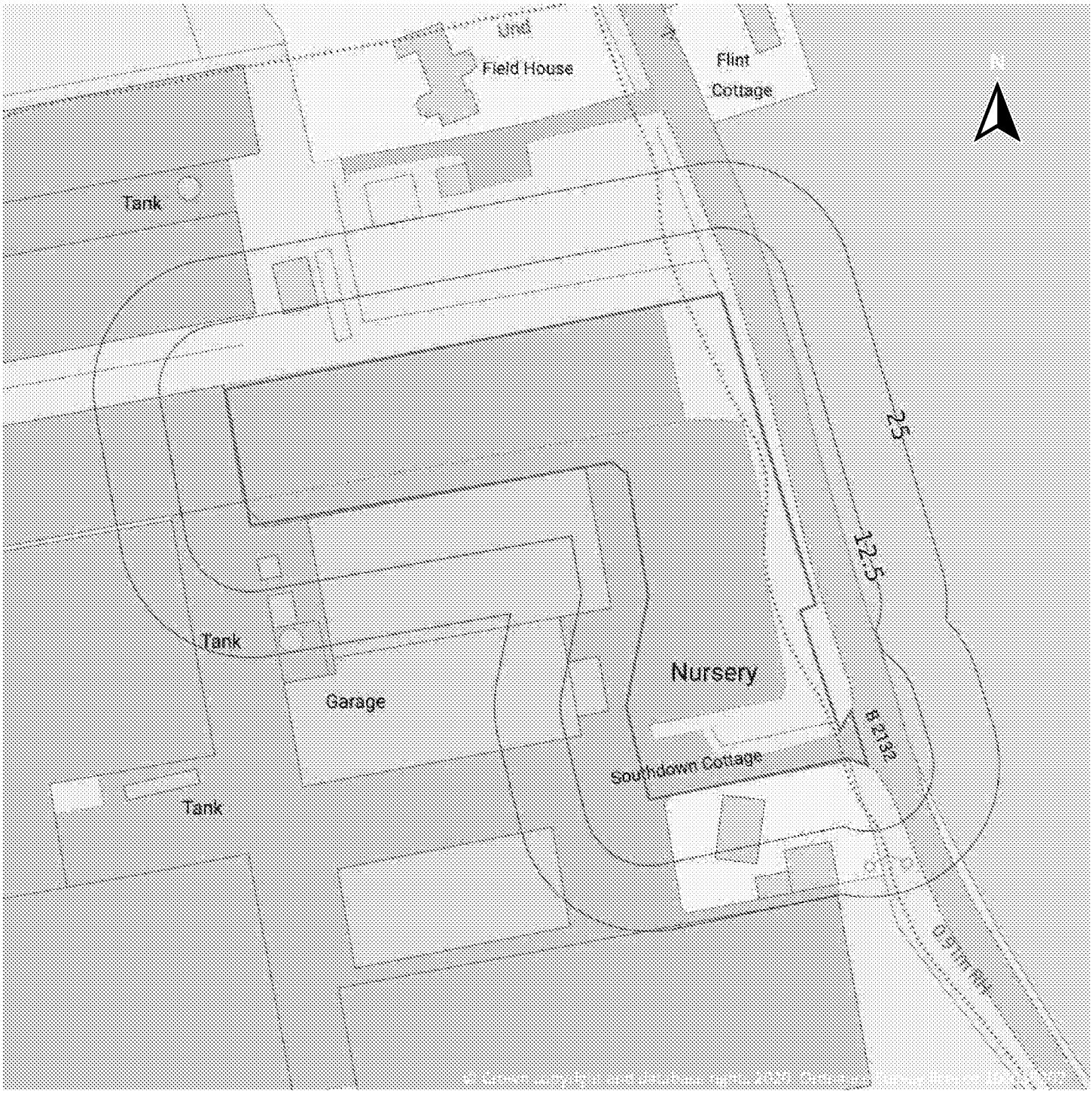
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2020. All Rights Reserved.

Capture Date: 06/09/1999

Site Area: 0.48ha

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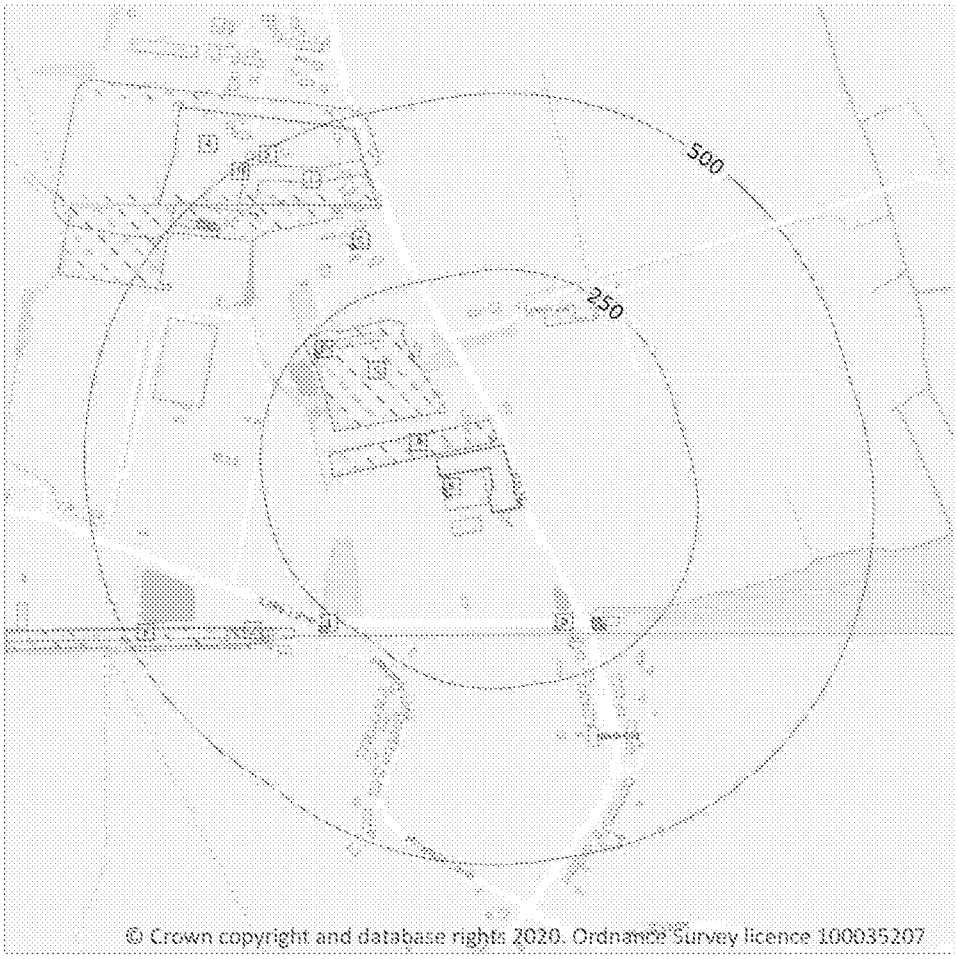
OS MasterMap site plan



Site Area: 0.48ha

ARUN DISTRICT COUNCIL Y/63/20/DOC

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	19

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 13**

ID	Location	Land use	Dates present	Group ID
A	4m N	Nursery	1950	1914898

ID	Location	Land use	Dates present	Group ID
A	5m N	Nursery	1966	1939955
C	62m N	Nursery	1978	1911154
C	62m N	Nursery	1991	1914063
D	174m S	Railway Building	1876	1867114
D	188m SE	Sewage Pumping Station	1991	1884779
D	195m S	Railway Building	1910 - 1950	1968954
D	197m S	Railway Building	1896	1928638
F	299m SW	Cuttings	1876 - 1896	1896505
G	319m N	Unspecified Tank	1978	1904634
G	319m N	Unspecified Tank	1991	1962648
F	320m SW	Cuttings	1991	1908107
F	320m SW	Cuttings	1978	1947242
2	328m SW	Cuttings	1966	1951251
H	264m N	Nursery	1990 - 1991	1921045
3	368m N	Nursery	1977	1922045
I	369m N	Nursery	1961	1957050
4	416m N	Nursery	1950	1926110
H	448m NW	Unspecified Tanks	1991	1871143

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	13

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 13**

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ID	Location	Land use	Dates present	Group ID
B	18m S	Unspecified Tank	1988 - 1999	321652
B	20m S	Unspecified Tank	1984 - 1992	320477
B	29m S	Unspecified Tank	1974	308946
A	35m N	Unspecified Tank	1974	308947
E	219m NW	Unspecified Tank	1992	312861
E	220m NW	Unspecified Tank	1988 - 1999	317316
G	318m N	Unspecified Tank	1984 - 1992	314691
G	318m N	Unspecified Tank	1988 - 1999	314998
I	422m NW	Unspecified Tank	1984 - 1994	321329
I	429m NW	Unspecified Tank	1974 - 1999	320339
H	453m NW	Unspecified Tank	1992 - 1999	326336
H	454m NW	Unspecified Tank	1988	326002
H	465m NW	Unspecified Tank	1988 - 1999	327921

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	3

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 13**

ID	Location	Land use	Dates present	Group ID
D	184m SE	Electricity Substation	1992 - 1994	207668
D	185m SE	Electricity Substation	1974	195058
1	268m SW	Electricity Substation	1992 - 1999	202908

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.

ARUN DISTRICT COUNCIL Y/63/20/DOC

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 22

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

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

ID	Location	Land Use	Date	Group ID
A	4m N	Nursery	1950	1914898
A	5m N	Nursery	1966	1939955
C	62m N	Nursery	1991	1914063

ID	Location	Land Use	Date	Group ID
C	62m N	Nursery	1978	1911154
D	174m S	Railway Building	1876	1867114
D	188m SE	Sewage Pumping Station	1991	1884779
D	195m S	Railway Building	1950	1968954
D	195m S	Railway Building	1910	1968954
D	197m S	Railway Building	1896	1928638
G	299m SW	Cuttings	1876	1896505
H	319m N	Unspecified Tank	1991	1962648
H	319m N	Unspecified Tank	1978	1904634
G	320m SW	Cuttings	1991	1908107
G	320m SW	Cuttings	1978	1947242
I	328m SW	Cuttings	1966	1951251
G	350m SW	Cuttings	1896	1896505
I	264m N	Nursery	1990	1921045
2	367m N	Nursery	1991	1921045
I	368m N	Nursery	1977	1922045
J	369m N	Nursery	1961	1957050
3	416m N	Nursery	1950	1926110
K	448m NW	Unspecified Tanks	1991	1871143

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	29

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 17**

ID	Location	Land Use	Date	Group ID
B	18m S	Unspecified Tank	1999	321652

ARUN DISTRICT COUNCIL Y/63/20/DOC

ID	Location	Land Use	Date	Group ID
B	20m S	Unspecified Tank	1984	320477
B	20m S	Unspecified Tank	1987	320477
B	20m S	Unspecified Tank	1992	320477
B	21m S	Unspecified Tank	1988	321652
B	29m S	Unspecified Tank	1974	308946
A	35m N	Unspecified Tank	1974	308947
E	219m NW	Unspecified Tank	1992	312861
E	220m NW	Unspecified Tank	1988	317316
E	221m NW	Unspecified Tank	1999	317316
H	318m N	Unspecified Tank	1984	314691
H	318m N	Unspecified Tank	1987	314691
H	318m N	Unspecified Tank	1992	314691
H	318m N	Unspecified Tank	1988	314998
H	320m N	Unspecified Tank	1999	314998
J	422m NW	Unspecified Tank	1984	321329
J	423m NW	Unspecified Tank	1994	321329
J	429m NW	Unspecified Tank	1984	320339
J	429m NW	Unspecified Tank	1987	320339
J	429m NW	Unspecified Tank	1992	320339
J	430m NW	Unspecified Tank	1988	320339
J	430m NW	Unspecified Tank	1974	320339
J	431m NW	Unspecified Tank	1999	320339
K	453m NW	Unspecified Tank	1992	326336
K	454m NW	Unspecified Tank	1988	326002
K	455m NW	Unspecified Tank	1999	326336
K	465m NW	Unspecified Tank	1992	327921
K	467m NW	Unspecified Tank	1988	327921
K	468m NW	Unspecified Tank	1999	327921

This data is sourced from Ordnance Survey / Groundsure.

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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 17**

ID	Location	Land Use	Date	Group ID
D	184m SE	Electricity Substation	1994	207668
D	185m SE	Electricity Substation	1974	195058
D	186m SE	Electricity Substation	1992	207668
D	186m SE	Electricity Substation	1992	207668
F	268m SW	Electricity Substation	1999	202908
F	268m SW	Electricity Substation	1992	202908

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.

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3 Waste and landfill



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Site Outline

Search buffers in metres (m)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

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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	42

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

Features are displayed on the Waste and landfill map on **page 21**

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ID	Location	Site	Reference	Category	Sub-Category	Description
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX172348	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX172348	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX172348	Treating waste exemption	Not on a farm	Cleaning, washing, spraying or coating relevant waste
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX172348	Disposing of waste exemption	Not on a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX172348	Disposing of waste exemption	Not on a farm	Burning waste in the open
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX013672	Disposing of waste exemption	Not on a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX013672	Disposing of waste exemption	Not on a farm	Burning waste in the open
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX013672	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX013672	Treating waste exemption	Not on a farm	Cleaning, washing, spraying or coating relevant waste
A	47m SW	FRESH ACRES NURSERIES, YAPTON LANE, WALBERTON, ARUNDEL, BN18 0AS	WEX013672	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising

ID	Location	Site	Reference	Category	Sub-Category	Description
1	238m NW	Star Plants Lake Lane BOGNOR REGIS West Sussex PO22 0AL	EPR/ZF0404KT/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
B	261m W	STAR PLANTS, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX133456	Disposing of waste exemption	Not on a farm	Burning waste in the open
B	265m W	STAR PLANTS, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX086693	Disposing of waste exemption	On a farm	Burning waste in the open
B	276m W	Star Plants Lake Lane BOGNOR REGIS West Sussex PO22 0AL	EPR/CH0273CG/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
B	276m W	Star Plants Lake Lane BOGNOR REGIS West Sussex PO22 0AL	EPR/CH0273CG/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
B	276m W	Star Plants Lake Lane BOGNOR REGIS West Sussex PO22 0AL	EPR/CH0273CG/A001	Treating waste exemption	Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
B	276m W	Star Plants Lake Lane BOGNOR REGIS West Sussex PO22 0AL	EPR/CH0273CG/A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulversing
2	323m NE	-	WEX236128	Storing waste exemption	On a farm	Storage of sludge
3	358m E	Tokar Ltd The Lazy W Yapton BN18 0AS	EPR/DE5041NG/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
C	474m N	Walberton Nursery LLP, Yapton Lane, West Sussex, BN18 0AS	WEX132821	Disposing of waste exemption	Not on a farm	Deposit of waste from dredging of inland waters
C	474m N	Walberton Nursery LLP, Yapton Lane, West Sussex, BN18 0AS	WEX132821	Treating waste exemption	Not on a farm	Cleaning, washing, spraying or coating relevant waste
C	474m N	Walberton Nursery LLP, Yapton Lane, West Sussex, BN18 0AS	WEX132821	Using waste exemption	Not on a farm	Use of waste in construction
C	474m N	Walberton Nursery LLP, Yapton Lane, West Sussex, BN18 0AS	WEX132821	Disposing of waste exemption	Not on a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice

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ID	Location	Site	Reference	Category	Sub-Category	Description
C	474m N	Walberton Nursery LLP, Yapton Lane, West Sussex, BN18 0AS	WEX132821	Disposing of waste exemption	Not on a farm	Burning waste in the open
C	474m N	Walberton Nursery LLP, Yapton Lane, West Sussex, BN18 0AS	WEX132821	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	475m N	Walberton Nursery Yapton Lane ARUNDEL West Sussex BN18 0AS	EPR/GF0509TF/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of waste from dredging of inland waters
C	475m N	Walberton Nursery Yapton Lane ARUNDEL West Sussex BN18 0AS	EPR/GF0509TF/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	475m N	Walberton Nursery Yapton Lane ARUNDEL West Sussex BN18 0AS	EPR/GF0509TF/A001	Disposing of waste exemption	Agricultural Waste Only	Burning waste in the open
C	475m N	Walberton Nursery Yapton Lane ARUNDEL West Sussex BN18 0AS	EPR/GF0509TF/A001	Treating waste exemption	Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste
C	475m N	Walberton Nursery Yapton Lane ARUNDEL West Sussex BN18 0AS	EPR/GF0509TF/A001	Treating waste exemption	Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
C	475m N	Walberton Nursery Yapton Lane ARUNDEL West Sussex BN18 0AS	EPR/GF0509TF/A001	Using waste exemption	Agricultural Waste Only	Use of waste in construction
C	475m N	Fresh Acres Nurseries Ltd Yapton Lane Arundel West Sussex BN18 0AS	EPR/BH0573GV/A001	Disposing of waste exemption	Agricultural Waste Only	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
C	475m N	Fresh Acres Nurseries Ltd Yapton Lane Arundel West Sussex BN18 0AS	EPR/BH0573GV/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open
C	475m N	Fresh Acres Nurseries Ltd Yapton Lane Arundel West Sussex BN18 0AS	EPR/BH0573GV/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
C	475m N	Fresh Acres Nurseries Ltd Yapton Lane Arundel West Sussex BN18 0AS	EPR/BH0573GV/A001	Treating waste exemption	Non-Agricultural Waste Only	Cleaning, washing, spraying or coating relevant waste

ID	Location	Site	Reference	Category	Sub-Category	Description
C	475m N	Fresh Acres Nurseries Ltd Yapton Lane Arundel West Sussex BN18 0AS	EPR/BH0573GV/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
D	491m W	Binsted Nursery, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX177697	Disposing of waste exemption	Not on a farm	Burning waste in the open
D	491m W	Binsted Nursery, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX177697	Treating waste exemption	Not on a farm	Cleaning, washing, spraying or coating relevant waste
D	491m W	Binsted Nursery, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX177697	Using waste exemption	Not on a farm	Use of waste in construction
D	491m W	Binsted Nursery, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX177697	Treating waste exemption	Not on a farm	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
D	491m W	Binsted Nursery, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX177697	Disposing of waste exemption	Not on a farm	Deposit of agricultural waste consisting of plant tissue under a Plant Health notice
D	491m W	Binsted Nursery, LAKE LANE, BARNHAM, BOGNOR REGIS, PO22 0AL	WEX177697	Disposing of waste exemption	Not on a farm	Deposit of waste from dredging of inland waters

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

4 Current industrial land use



Site Outline

Search buffers in metres (m)

Recent industrial land uses

Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m	5

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 27**

ID	Location	Company	Address	Activity	Category
1	18m S	Tank	West Sussex, BN18	Tanks (Generic)	Industrial Features
A	202m SE	Electricity Sub Station	West Sussex, BN18	Electrical Features	Infrastructure and Facilities
2	222m NW	Tank	West Sussex, BN18	Tanks (Generic)	Industrial Features

ID	Location	Company	Address	Activity	Category
A	223m SE	Sewage Pumping	West Sussex, BN18	Waste Storage, Processing and Disposal	Infrastructure and Facilities
A	226m SE	Pumping Station	West Sussex, BN18	Water Pumping Stations	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	0

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

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	1

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

Features are displayed on the Current industrial land use map on **page 27**

ID	Location	Address	Details	
3	226m SW	LAKE DELL, MAYPOLE LANE, YAPTON, ARUNDEL WEST SUSSEX	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: P00609 Permit Version: 1 Receiving Water: INTO LAND	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 11/09/1986 Effective Date: 11/09/1986 Revocation Date: 31/03/1997

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.

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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.

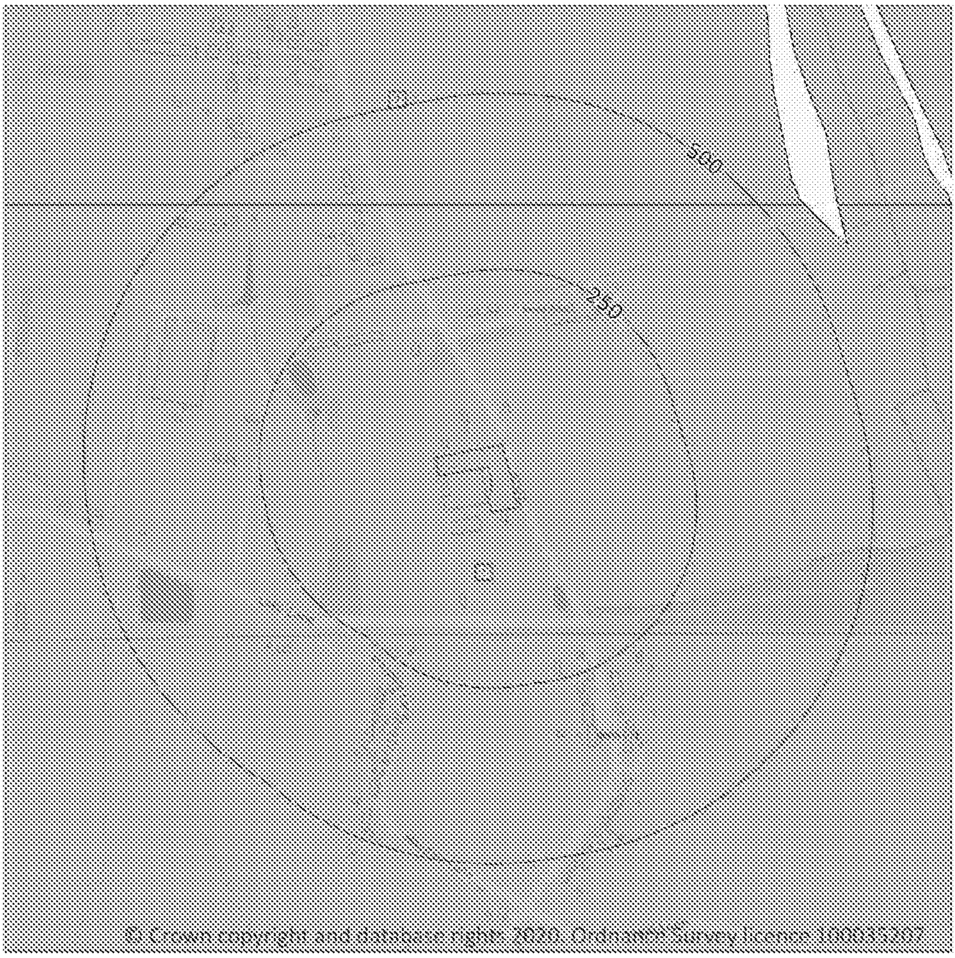
4.21 Pollution inventory radioactive waste

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

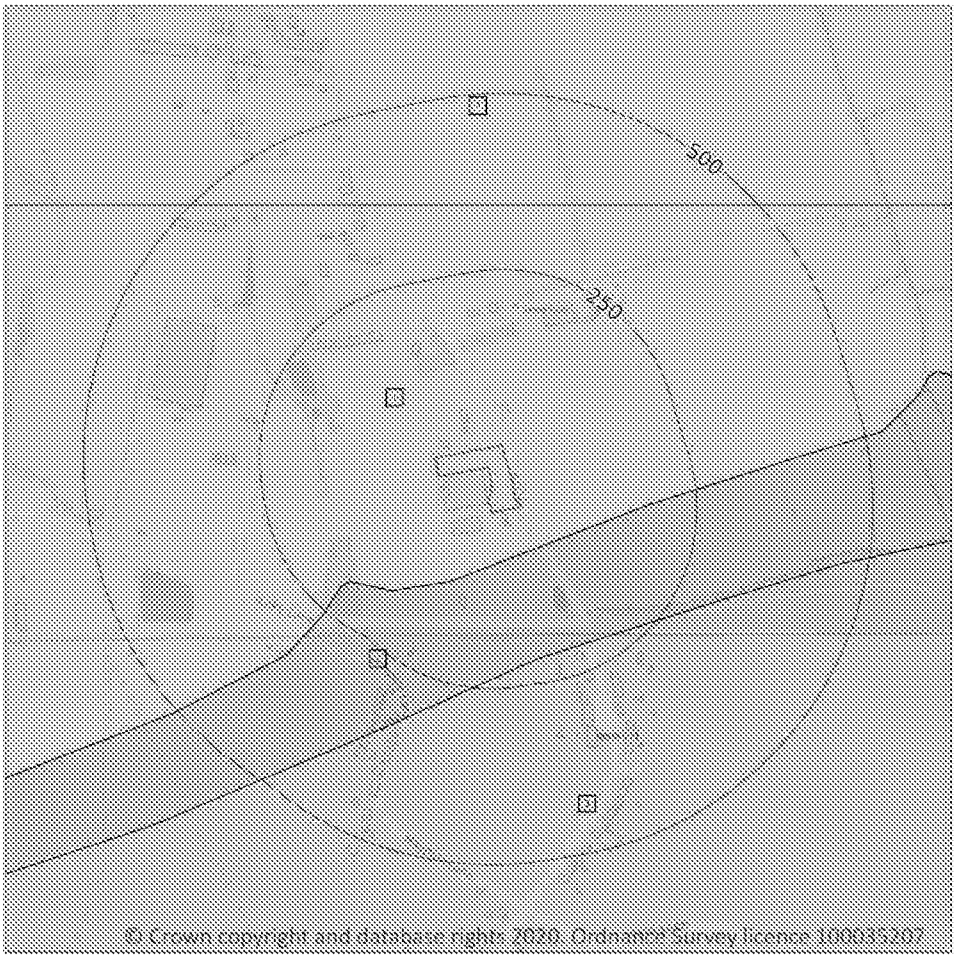
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 33**

ID	Location	Designation	Description
1	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
2	341m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Bedrock aquifer



Site Outline

Search buffers in metres (m)

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

5.2 Bedrock aquifer

Records within 500m **4**

Aquifer status of groundwater held within bedrock geology.

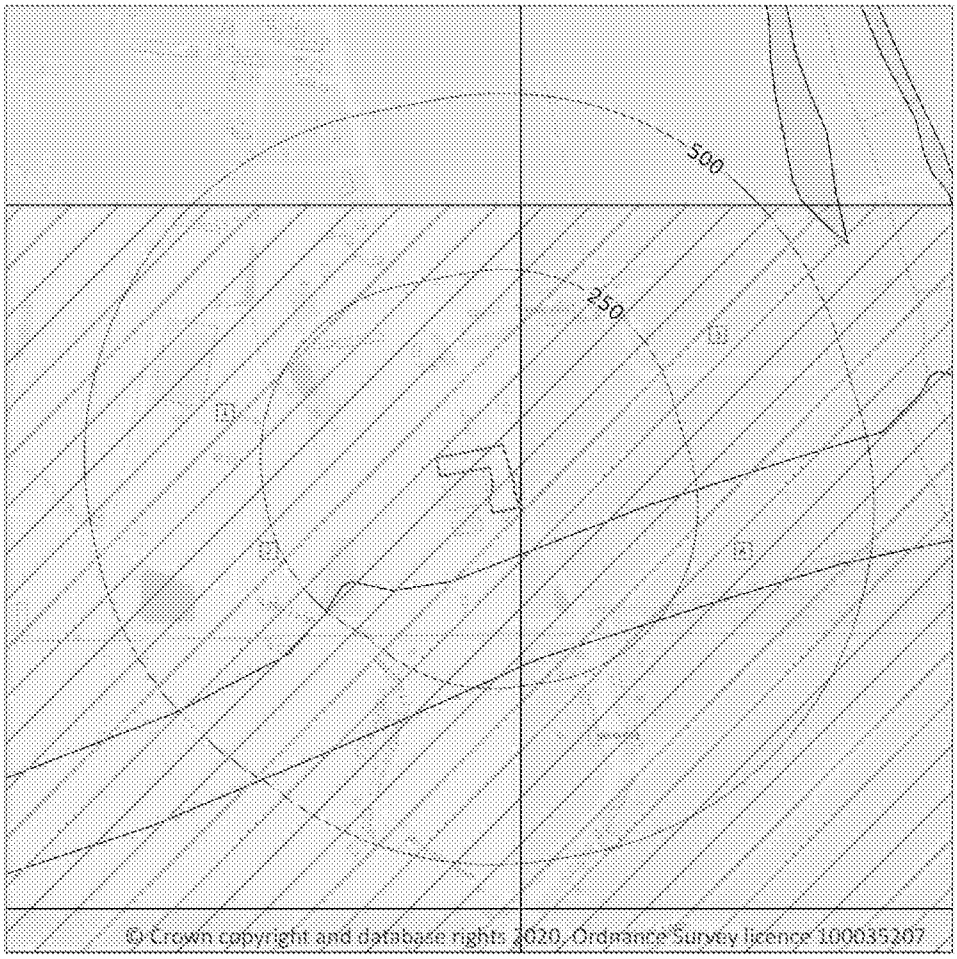
Features are displayed on the Bedrock aquifer map on **page 35**

ID	Location	Designation	Description
1	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
2	61m S	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

ID	Location	Designation	Description
3	211m S	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
4	241m N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

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

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

Features are displayed on the Groundwater vulnerability map on **page 37**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures
3	On site	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: Medium Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	2

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	14.000000000000002%
A	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	48.0%

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

5.5 Groundwater vulnerability- local information

Records on site	0

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

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

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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	12

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 39**

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ID	Location	Details	
3	425m NW	Status: Active Licence No: 10/41/412006 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: TODHURST BARN, YAPTON LANE, WALBERTON Data Type: Point Name: Walberton Nursery LLP Easting: 497610 Northing: 104970	Annual Volume (m^3): 4,546 Max Daily Volume (m^3): 90.90 Original Application No: - Original Start Date: 11/03/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2019 Version End Date: -
A	590m NW	Status: Historical Licence No: 27/194 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: POINT A AT WALBERTON NURSERIES, WALBERTON Data Type: Point Name: D Tribram T/A Walberton Nurseries Easting: 497640 Northing: 105180	Annual Volume (m^3): 42000 Max Daily Volume (m^3): 288 Original Application No: - Original Start Date: - Expiry Date: 01/04/2008 Issue No: 100 Version Start Date: 02/04/1998 Version End Date: -
A	590m NW	Status: Historical Licence No: 27/194A Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: POINT A AT WALBERTON NURSERIES, WALBERTON Data Type: Point Name: Walberton Nursery LLP Easting: 497640 Northing: 105180	Annual Volume (m^3): 42000 Max Daily Volume (m^3): 288 Original Application No: - Original Start Date: 10/10/2005 Expiry Date: 31/03/2016 Issue No: 2 Version Start Date: 17/04/2014 Version End Date: -
A	590m NW	Status: Active Licence No: 27/194A/R01 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: POINT A AT WALBERTON NURSERIES, WALBERTON Data Type: Point Name: Walberton Nursery LLP Easting: 497640 Northing: 105180	Annual Volume (m^3): 42,000 Max Daily Volume (m^3): 288 Original Application No: - Original Start Date: 01/04/2016 Expiry Date: 31/03/2028 Issue No: 2 Version Start Date: 18/09/2019 Version End Date: -
-	742m S	Status: Historical Licence No: 10/41/411007 Details: Horticultural Watering Direct Source: Southern Region Groundwater Point: THE STREDDLES, NORTH END ROAD, YAPTON Data Type: Point Name: Clay Esq Easting: 497840 Northing: 103830	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 18/07/1979 Version End Date: -

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ID	Location	Details	
-	772m W	Status: Active Licence No: 10/41/542208 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: POINT B, LAKE LANE,BARNHAM Data Type: Point Name: Eric Wall Holdings Ltd Easting: 497110 Northing: 104580	Annual Volume (m^3): 100,000 Max Daily Volume (m^3): 545 Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/06/2009 Version End Date: -
-	1014m SE	Status: Active Licence No: 10/41/412007 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: WICKS FARM, FORD Data Type: Point Name: Keith Langmead Ltd Easting: 498790 Northing: 103930	Annual Volume (m^3): 15,000 Max Daily Volume (m^3): 120 Original Application No: - Original Start Date: 30/05/1989 Expiry Date: - Issue No: 101 Version Start Date: 31/03/2016 Version End Date: -
-	1142m W	Status: Active Licence No: 10/41/542208 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: POINT A, LAKE LANE,BARNHAM Data Type: Point Name: Eric Wall Holdings Ltd Easting: 496740 Northing: 104570	Annual Volume (m^3): 100,000 Max Daily Volume (m^3): 545 Original Application No: - Original Start Date: 17/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 10/06/2009 Version End Date: -
-	1252m NW	Status: Active Licence No: 10/41/542209 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: AT LAKE LANE,BARNHAM Data Type: Point Name: Toddington Nurseries Limited Easting: 496740 Northing: 105160	Annual Volume (m^3): 36,368 Max Daily Volume (m^3): 681.90 Original Application No: - Original Start Date: 11/11/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2013 Version End Date: -
-	1482m SE	Status: Historical Licence No: 10/41/412004 Details: General Farming & Domestic Direct Source: Southern Region Groundwater Point: WICKS FARM, YAPTON Data Type: Point Name: Langmead Easting: 499330 Northing: 103910	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 02/04/1987 Version End Date: -

ID	Location	Details	
-	1698m SW	Status: Historical Licence No: 10/41/542008 Details: Spray Irrigation - Direct Direct Source: Southern Region Groundwater Point: POINT A AT TILE BARN FARM,BARNHAM Data Type: Point Name: Lonsdale Easting: 496460 Northing: 103630	Annual Volume (m^3): 25003 Max Daily Volume (m^3): 204.5 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 101 Version Start Date: 17/01/2008 Version End Date: -
-	1930m SE	Status: Historical Licence No: 27/198 Details: Process Water Direct Source: Southern Region Groundwater Point: FORD INDUSTRIAL ESTATE, ARUNDEL Data Type: Point Name: Tarmac Ltd Easting: 499530 Northing: 103360	Annual Volume (m^3): 105000 Max Daily Volume (m^3): 351 Original Application No: - Original Start Date: 04/01/2001 Expiry Date: - Issue No: 1 Version Start Date: 04/01/2001 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	6

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 39**

ID	Location	Details	
1	112m SW	Status: Historical Licence No: 10/41/412002 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: TODHURST RIFE AT YAPTON LANE, WALBERTON Data Type: Line Name: Fresh Acres Nurseries Ltd Easting: 497730 Northing: 104580	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 29/06/1998 Version End Date: -

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ID	Location	Details	
2	189m W	Status: Active Licence No: 27/176 Details: Spray Irrigation - Spray Irrigation Definition Order Direct Source: Southern Region Surface Waters Point: TODHURST RIFE AT STAR NURSERIES, BARNHAM Data Type: Point Name: Fleurie Nursery Limited Easting: 497700 Northing: 104700	Annual Volume (m^3): 20,000 Max Daily Volume (m^3): 214 Original Application No: - Original Start Date: 11/02/1993 Expiry Date: - Issue No: 102 Version Start Date: 25/06/2019 Version End Date: -
-	810m E	Status: Active Licence No: 27/190 Details: Spray Irrigation - Storage Direct Source: Southern Region Surface Waters Point: POINT A ON BINSTEAD RIFE, WICKS FARM, YAPTON Data Type: Point Name: Keith Langmead Ltd Easting: 498810 Northing: 104510	Annual Volume (m^3): 45,000 Max Daily Volume (m^3): 750 Original Application No: - Original Start Date: 16/08/1996 Expiry Date: - Issue No: 102 Version Start Date: 16/04/2019 Version End Date: -
-	1754m NE	Status: Active Licence No: 10/41/411020 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: BINSTED RIFE NR PRIORY FARM Data Type: Line Name: Luckin & Son Easting: 499460 Northing: 105630	Annual Volume (m^3): 2,500 Max Daily Volume (m^3): 181.80 Original Application No: - Original Start Date: 06/09/1982 Expiry Date: - Issue No: 100 Version Start Date: 06/06/2009 Version End Date: -
-	1839m E	Status: Historical Licence No: 10/41/411022CA Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: DRAINAGE DITCHES AT TORTINGTON Data Type: Point Name: Luckin & Son Easting: 499820 Northing: 104850	Annual Volume (m^3): 12274 Max Daily Volume (m^3): 54.6 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 19/08/1985 Version End Date: -
-	1839m E	Status: Active Licence No: 10/41/411022 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: TORTINGTON DRAINAGE DITCHES Data Type: Point Name: Luckin & Son Easting: 499820 Northing: 104850	Annual Volume (m^3): 12,274 Max Daily Volume (m^3): 54.50 Original Application No: - Original Start Date: 01/04/2007 Expiry Date: - Issue No: 1 Version Start Date: 01/04/2016 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0

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

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

5.9 Source Protection Zones

Records within 500m	0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology



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	9

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

Features are displayed on the Hydrology map on **page 45**

ID	Location	Type of water feature	Ground level	Permanence	Name
B	149m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

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ID	Location	Type of water feature	Ground level	Permanence	Name
C	161m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
4	167m W	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
A	173m SE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
6	176m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	179m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	216m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	236m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
F	238m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	11

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

Features are displayed on the Hydrology map on **page 45**

This data is sourced from the Ordnance Survey.

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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 45**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	Coastal Catchment	Not part of a river WB catchment	194	Lower Arun	Arun and Western Streams

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

6.4 WFD Surface water bodies

Records identified	0

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.

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

6.5 WFD Groundwater bodies

Records on site	1

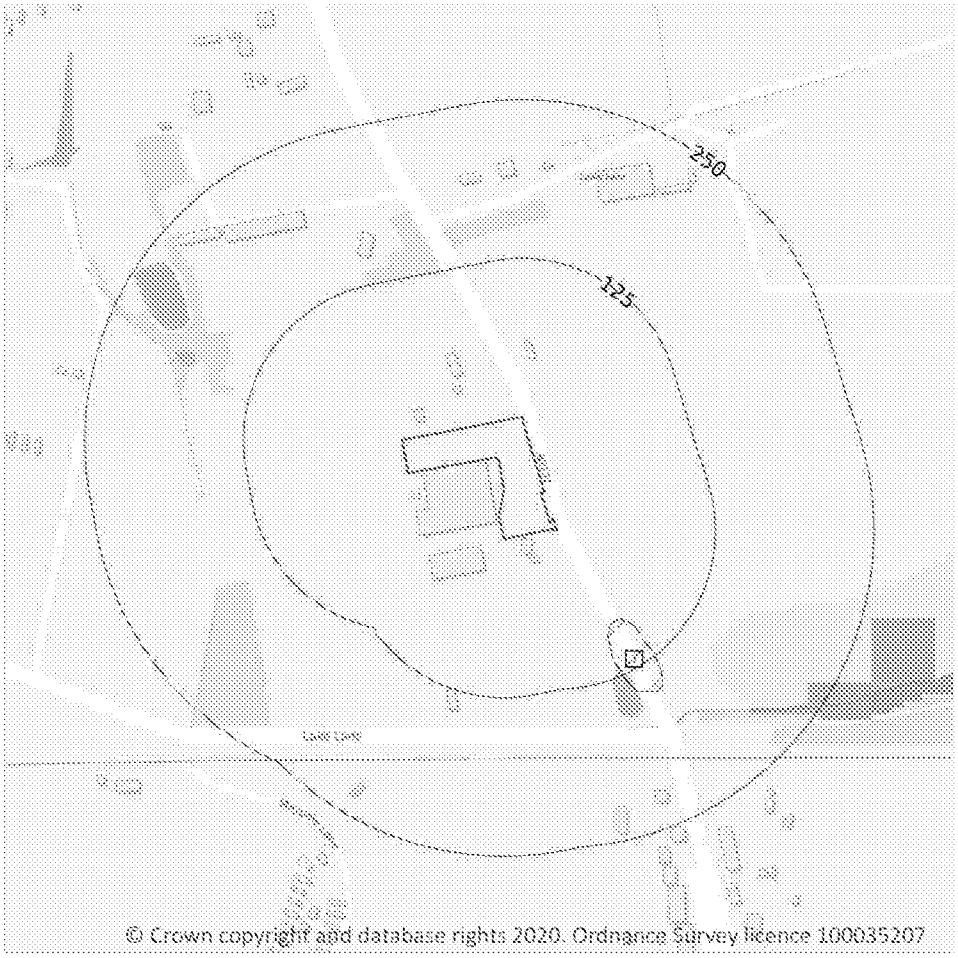
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 45**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Sussex Lambeth Group	GB40701G505100	Poor	Good	Poor	2015

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

7 River and coastal flooding



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Site Outline

Search buffers in metres (m)

Environment Agency river and coastal flooding:

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

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	1

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.

Features are displayed on the River and coastal flooding map on **page 48**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
1	85m SE	Yapton 1987	1987-11-01 1987-11-01	Main river	Unknown	Fluvial

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.

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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.

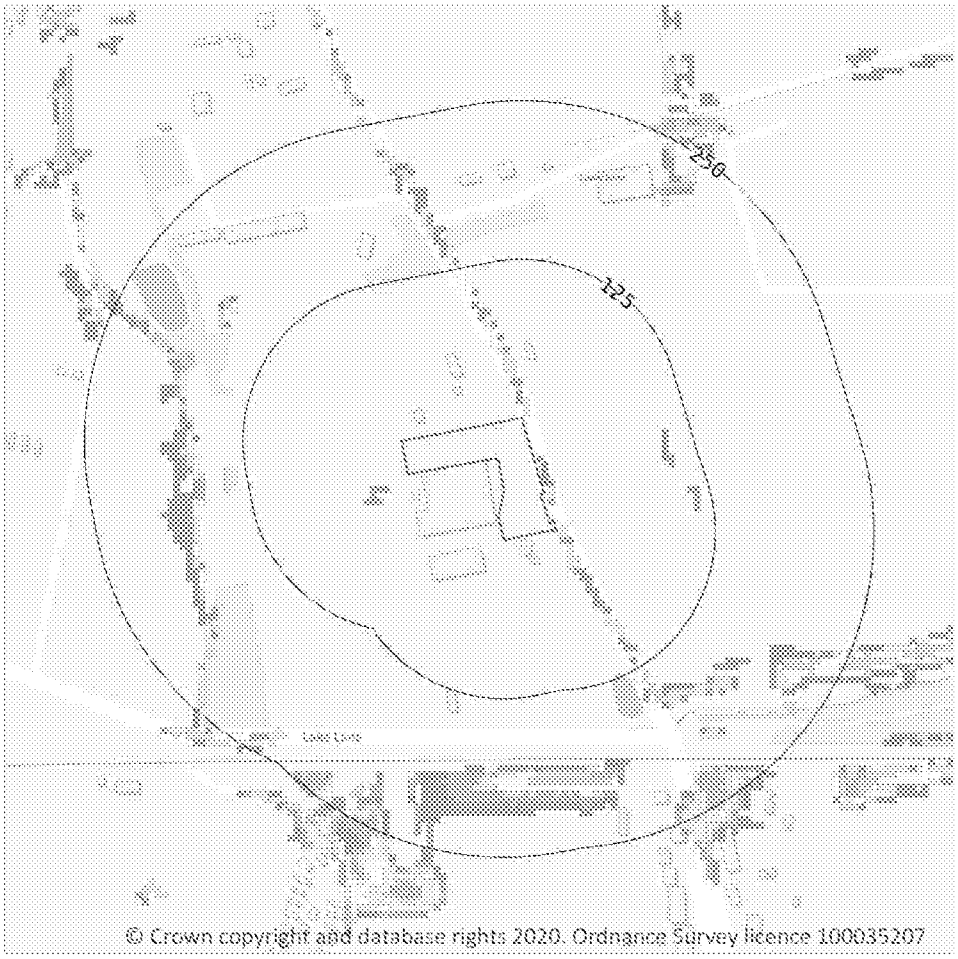
7.7 Flood Zone 3

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	**1 in 1000 year, 0.1m - 0.3m**
Highest risk within 50m	**1 in 250 year, 0.3m - 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 51**

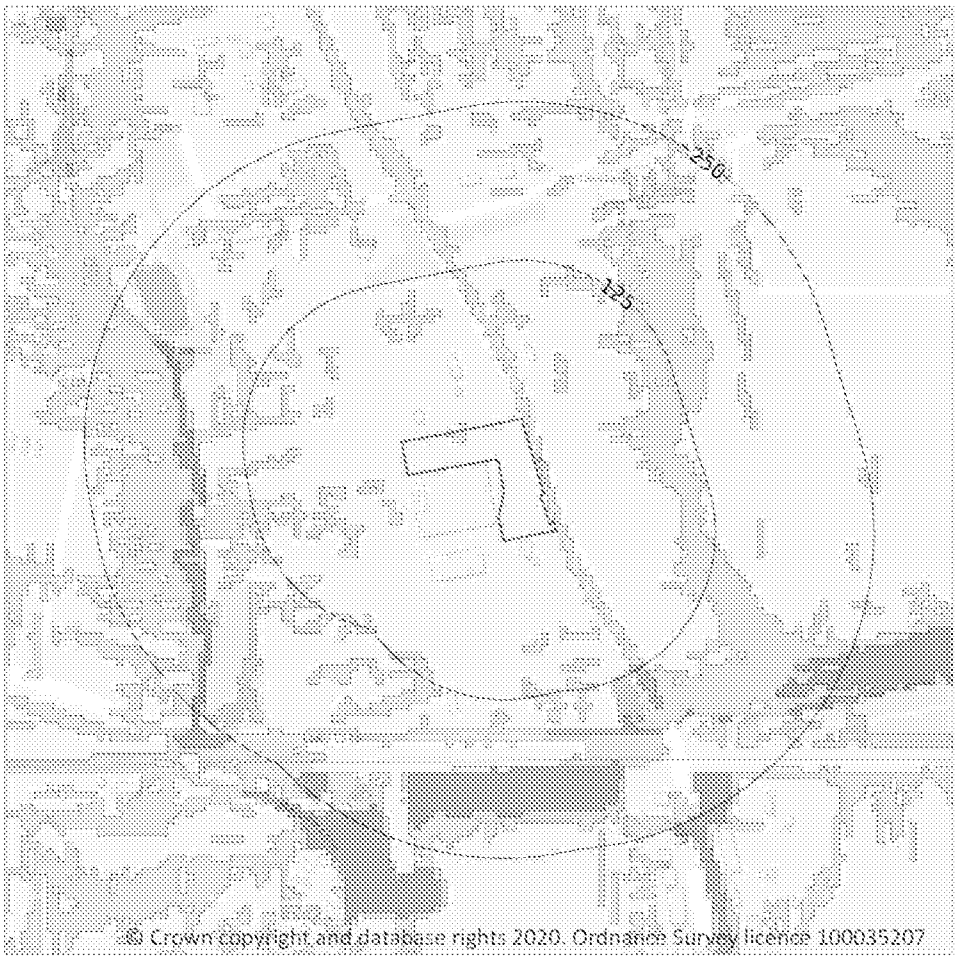
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

Return period	Maximum modelled depth
1 in 1000 year	Between 0.1m and 0.3m
1 in 250 year	Between 0.1m and 0.3m
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

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

9.1 Groundwater flooding

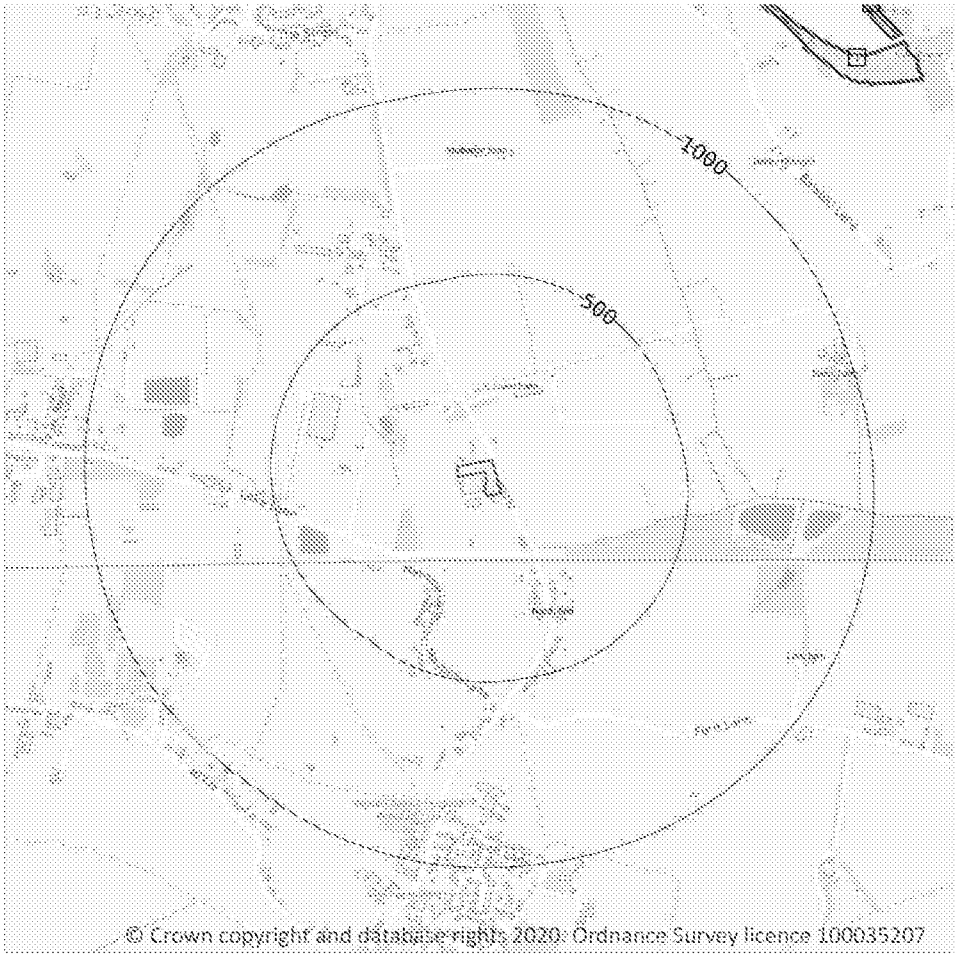
Highest risk on site	**Moderate-High**
Highest risk within 50m	**Moderate-High**

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

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

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	16

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 54**

ID	Location	Name	Woodland Type
1	1392m NE	lake copse	Ancient & Semi-Natural Woodland
-	1446m W	Unknown	Ancient & Semi-Natural Woodland
-	1508m NW	Unknown	Ancient & Semi-Natural Woodland
-	1541m NW	Unknown	Ancient & Semi-Natural Woodland
3	1563m NE	Unknown	Ancient & Semi-Natural Woodland
-	1752m NE	spinningwheel copse	Ancient & Semi-Natural Woodland
-	1785m W	Unknown	Ancient & Semi-Natural Woodland
-	1805m NE	Unknown	Ancient & Semi-Natural Woodland
-	1872m E	Unknown	Ancient & Semi-Natural Woodland
-	1888m N	Unknown	Ancient & Semi-Natural Woodland
-	1896m N	hundredhouse copse	Ancient & Semi-Natural Woodland
-	1918m NE	Unknown	Ancient & Semi-Natural Woodland
-	1939m N	copy thorn copse	Ancient & Semi-Natural Woodland
-	1949m N	Unknown	Ancient & Semi-Natural Woodland
-	1971m NE	binsted wood	Ancient & Semi-Natural Woodland
-	1990m NE	Unknown	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	0

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

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m	3

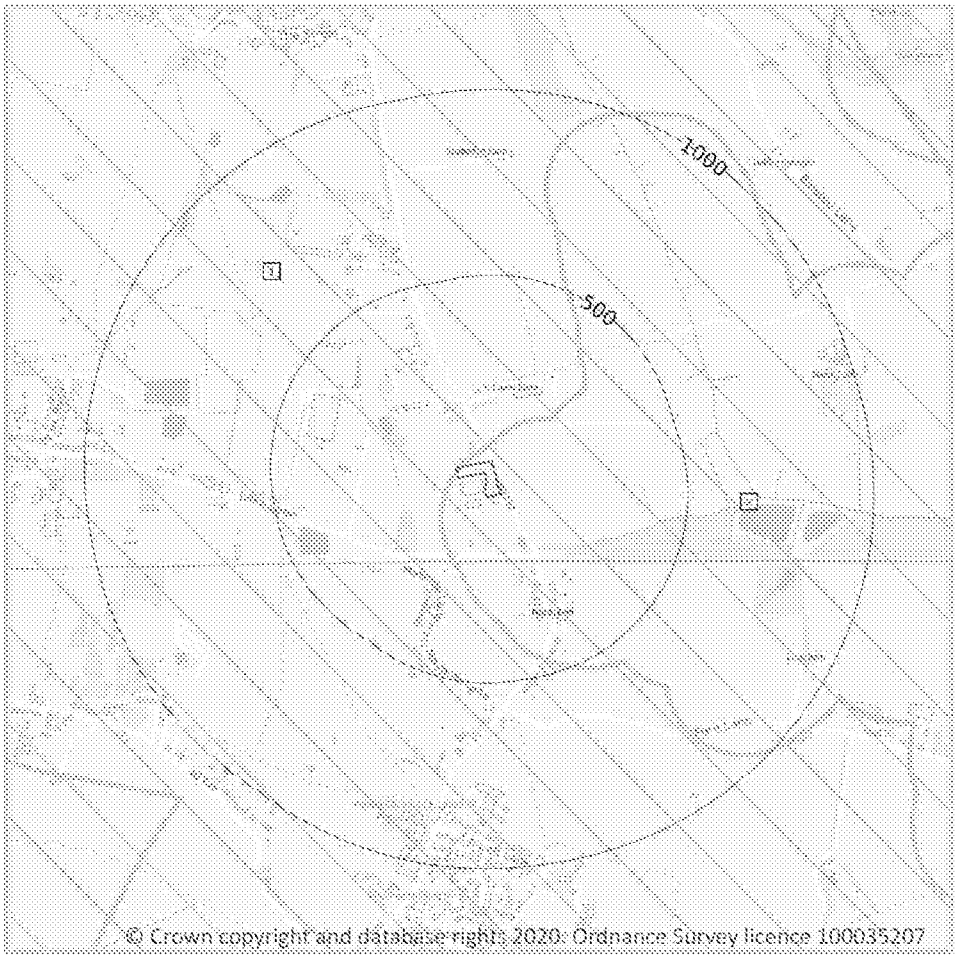
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
272m SW	Aldingbourne Rife NVZ	Surface Water	S517	Existing

Location	Name	Type	NVZ ID	Status
1409m NW	Aldingbourne Rife NVZ	Surface Water	SS17	Existing
1710m N	Sussex Chalk	Groundwater	G56	Changed

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	2

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. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t. Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
2	On site	Infrastructure - Pylons and overhead cables. Airports, helipads and other aviation proposals. Wind and Solar - Wind turbines. Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha. Residential - Residential development of 50 units or more. Rural residential - Any residential development of 10 or more houses outside existing settlements/urban areas. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t. Combustion - General combustion processes >50MW 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.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	0

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

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

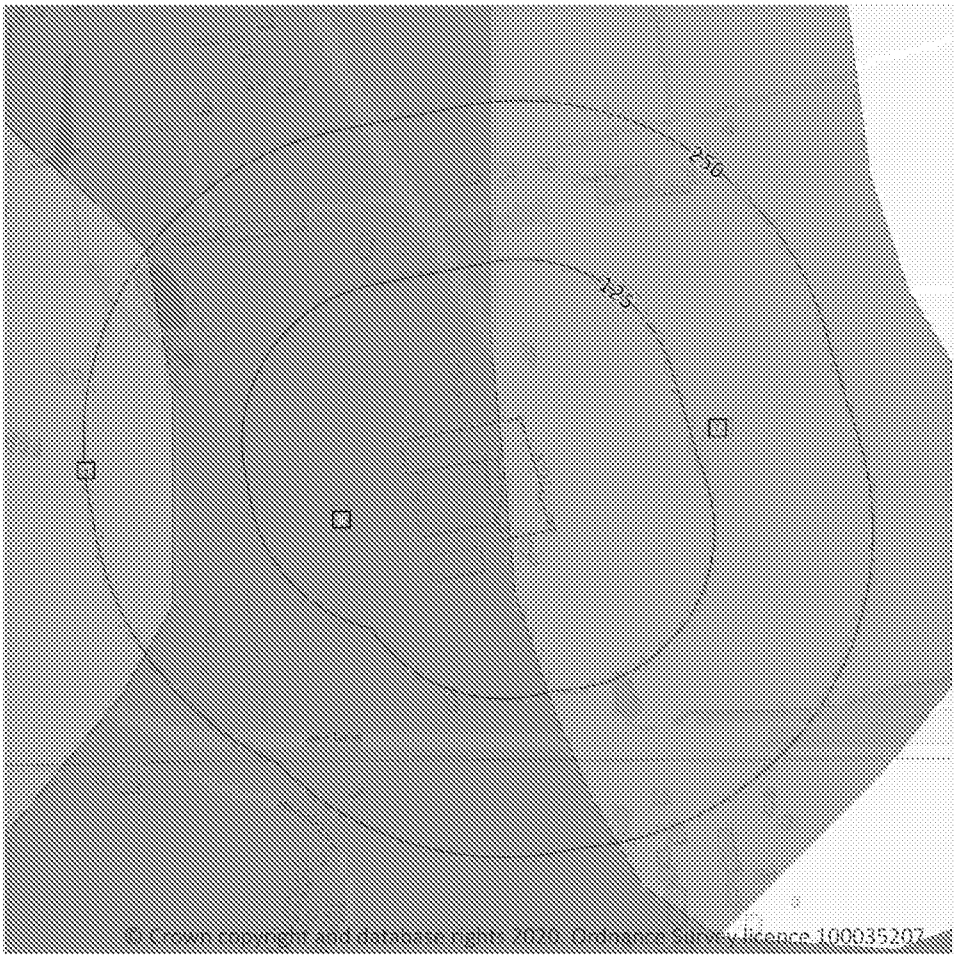
11.7 Registered Parks and Gardens

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 English Heritage, 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	3

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 64**

ID	Location	Classification	Description
1	On site	Grade 1	**Excellent quality agricultural land. Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.**

ID	Location	Classification	Description
2	**On site**	**Grade 2**	**Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.**
3	180m W	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment.

This data is sourced from Natural England.

ARUN DISTRICT COUNCIL Y/63/20/DOC

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

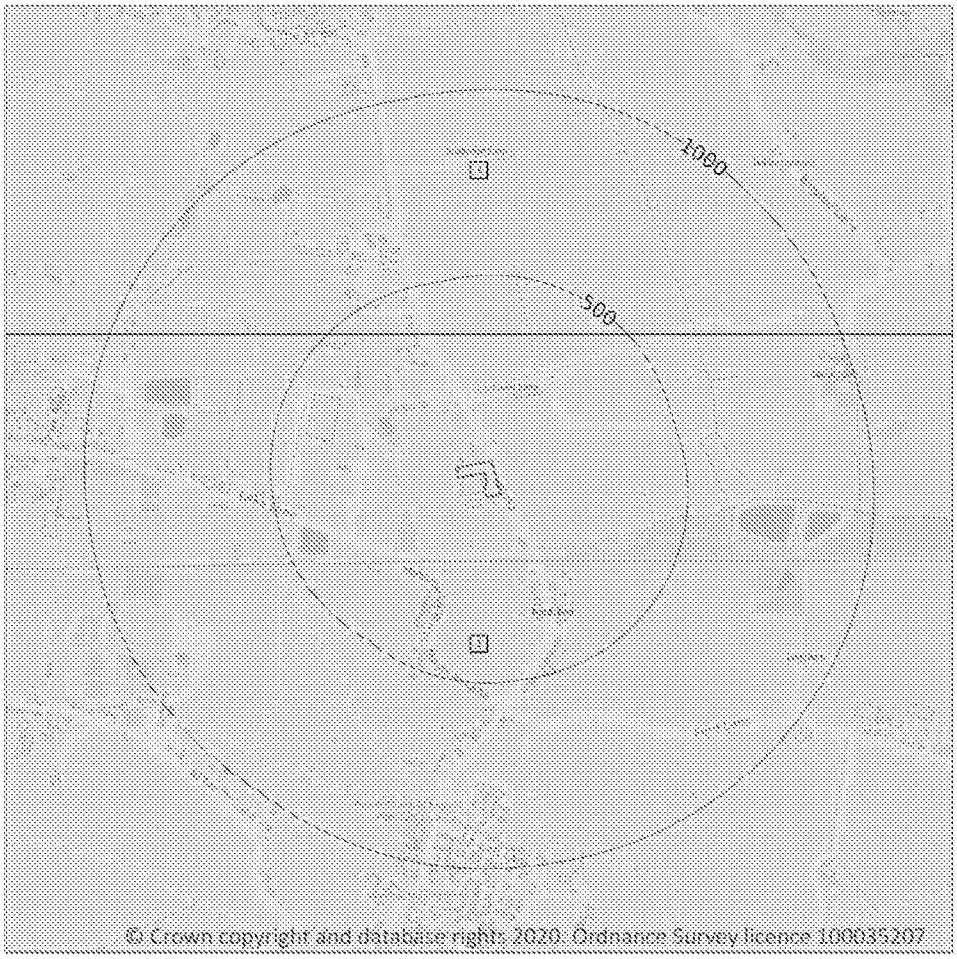
Records within 250m	0

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

This data is sourced from Natural England.

ARUN DISTRICT COUNCIL Y/63/20/DOC

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m 2

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 68**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	No coverage	SU90SE
2	341m N	Full	Full	Full	Full	SU90NE

This data is sourced from the British Geological Survey.

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

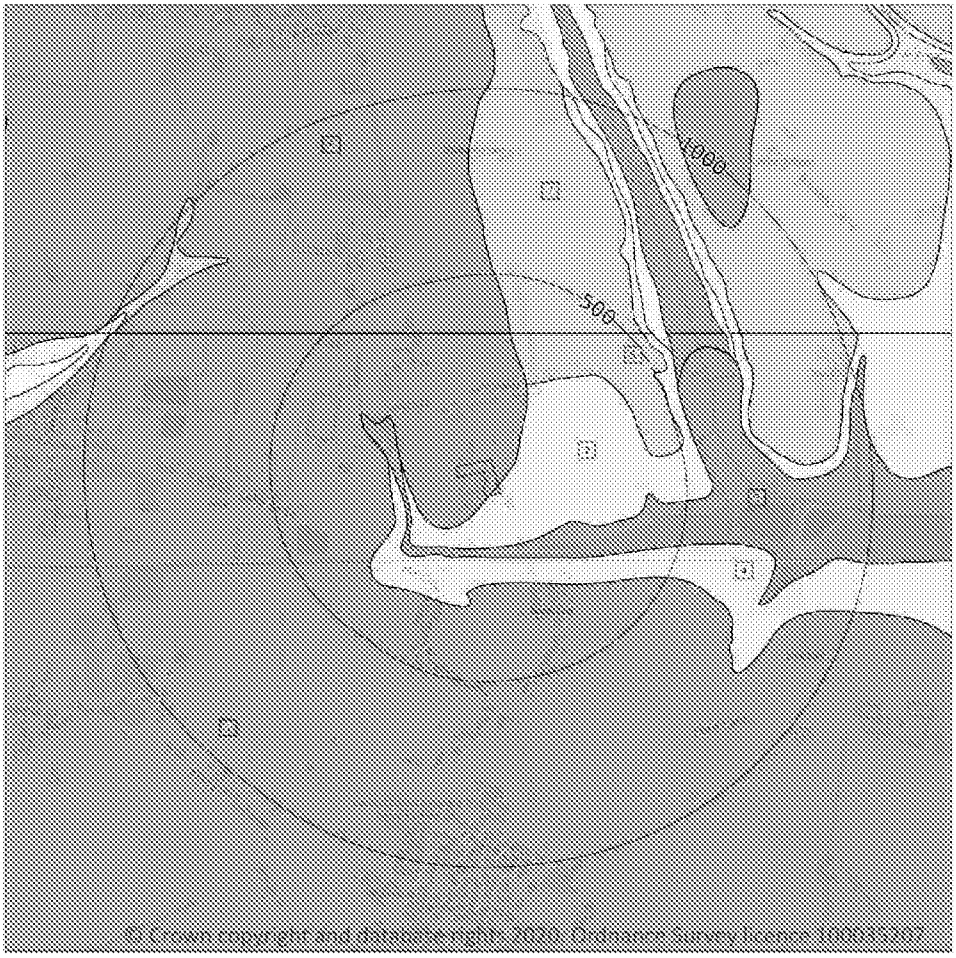
14.2 Artificial and made ground (10k)

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



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Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m 7

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 70**

ID	Location	LEX Code	Description	Rock description
1	On site	RTDU-Z	River Terrace Deposits (undifferentiated) - Silt (unlithified Deposits Coding Scheme)	Silt
2	On site	RBD1-XSV	Raised Beach Deposits, 1 - Sand And Gravel	Sand And Gravel
3	140m S	RMD-CZ	Raised Marine Deposits - Silty Clay	Clay, Silty

ID	Location	LEX Code	Description	Rock description
4	158m W	RBD1-XSV	Raised Beach Deposits, 1 - Sand And Gravel	Sand And Gravel
5	226m NE	HEAD-XVSZC	Head - Gravel, Sand, Silt And Clay	Gravel, Sand, Silt And Clay
6	341m N	RTDU-Z	River Terrace Deposits (undifferentiated) - Silt (unlithified Deposits Coding Scheme)	Silt
7	345m N	HEAD-XVSZC	Head - Gravel, Sand, Silt And Clay	Gravel, Sand, Silt And Clay

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

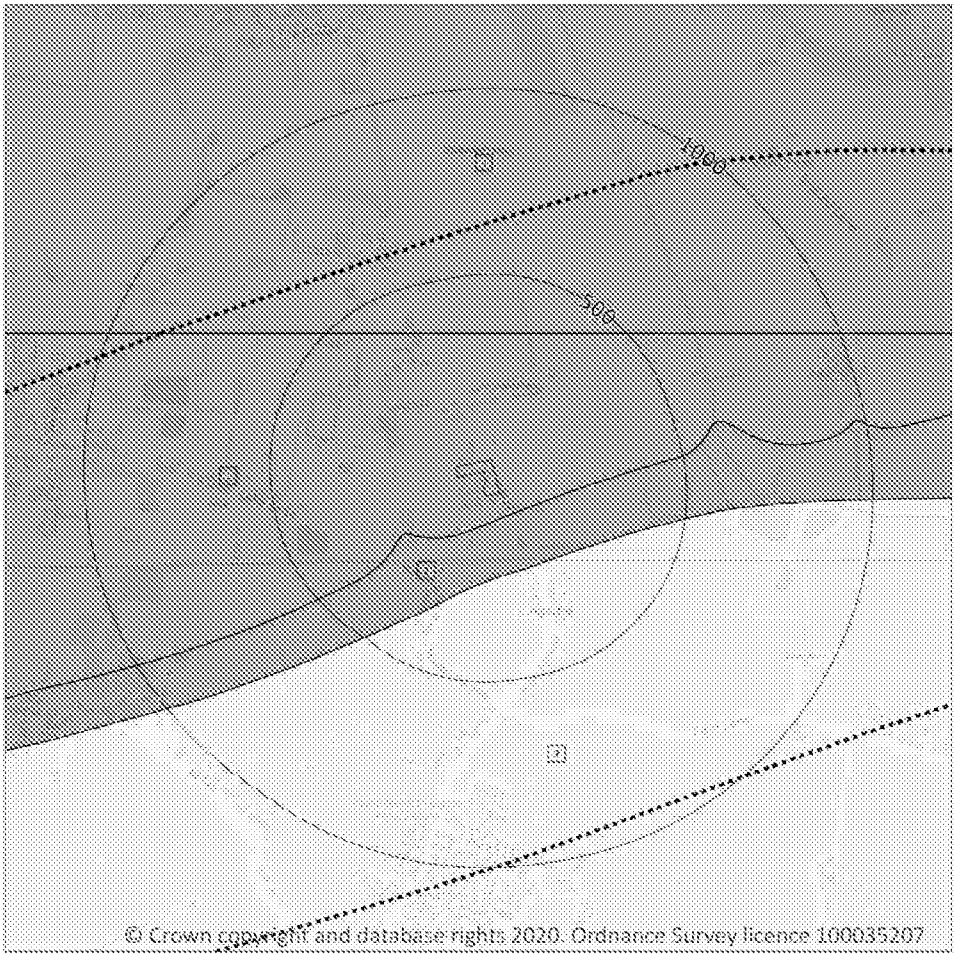
Records within 500m	0

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.

ARUN DISTRICT COUNCIL Y/63/20/DOC

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m 4

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 72**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-CLSISA**	**London Clay Formation - Clay, Silt And Sand**	**Eocene Epoch**
2	62m S	LMBE-CLAY	Lambeth Group - Clay	Paleocene Epoch
3	213m S	LPCK-CHLK	Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation And Portsdown Chalk Formation (undifferentiated) - Chalk	Campanian Age - Turonian Age

ID	Location	LEX Code	Description	Rock age
4	341m N	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch

This data is sourced from the British Geological Survey.

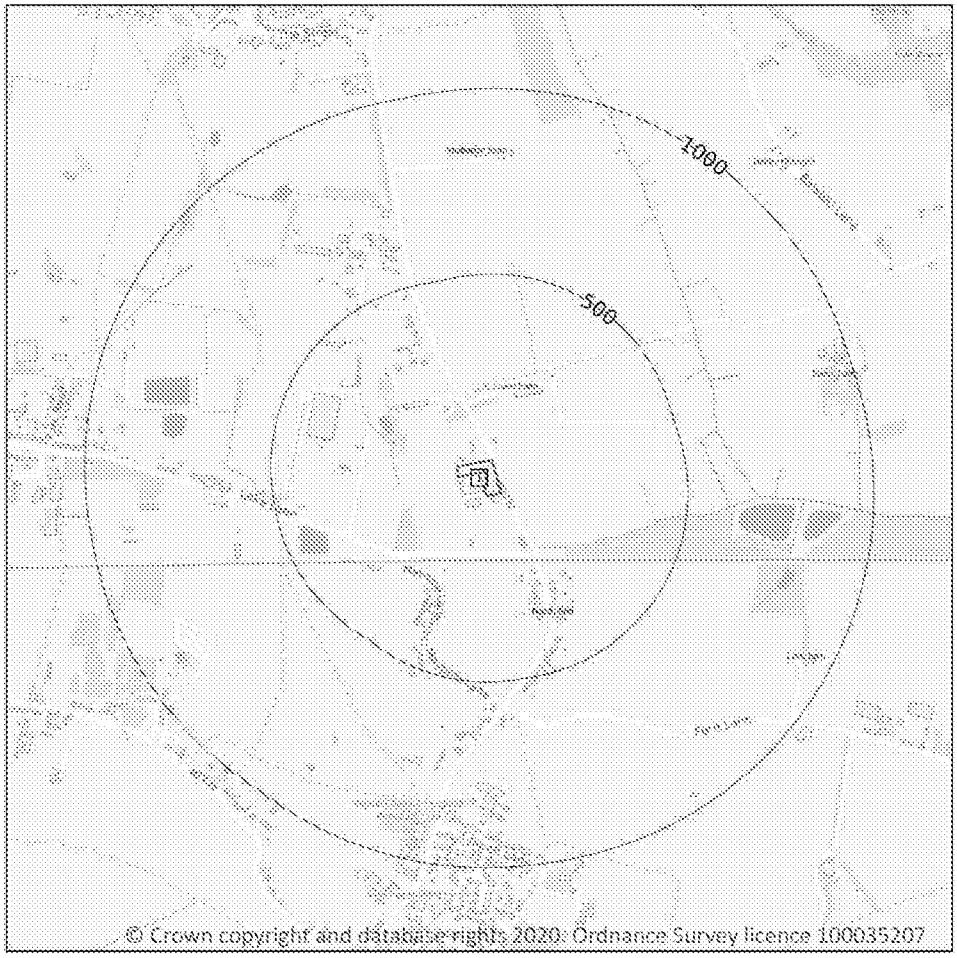
14.6 Bedrock faults and other linear features (10k)

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 74**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW317_332_chichester_and_bognor_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 5

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 76**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**RBD1-XSV**	**RAISED BEACH DEPOSITS, 1**	**SAND AND GRAVEL**
2	**On site**	**RTDU-XSZC**	**RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)**	**SAND, SILT AND CLAY**
3	135m W	RMD-XCZSV	RAISED MARINE DEPOSITS	CLAY, SILT, SAND AND GRAVEL
4	158m W	RBD1-XSV	RAISED BEACH DEPOSITS, 1	SAND AND GRAVEL

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ID	Location	LEX Code	Description	Rock description
5	231m NE	HEAD-XVSZC	HEAD	GRAVEL, SAND, SILT AND CLAY

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	2

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	Very High	High
On site	Intergranular	High	Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

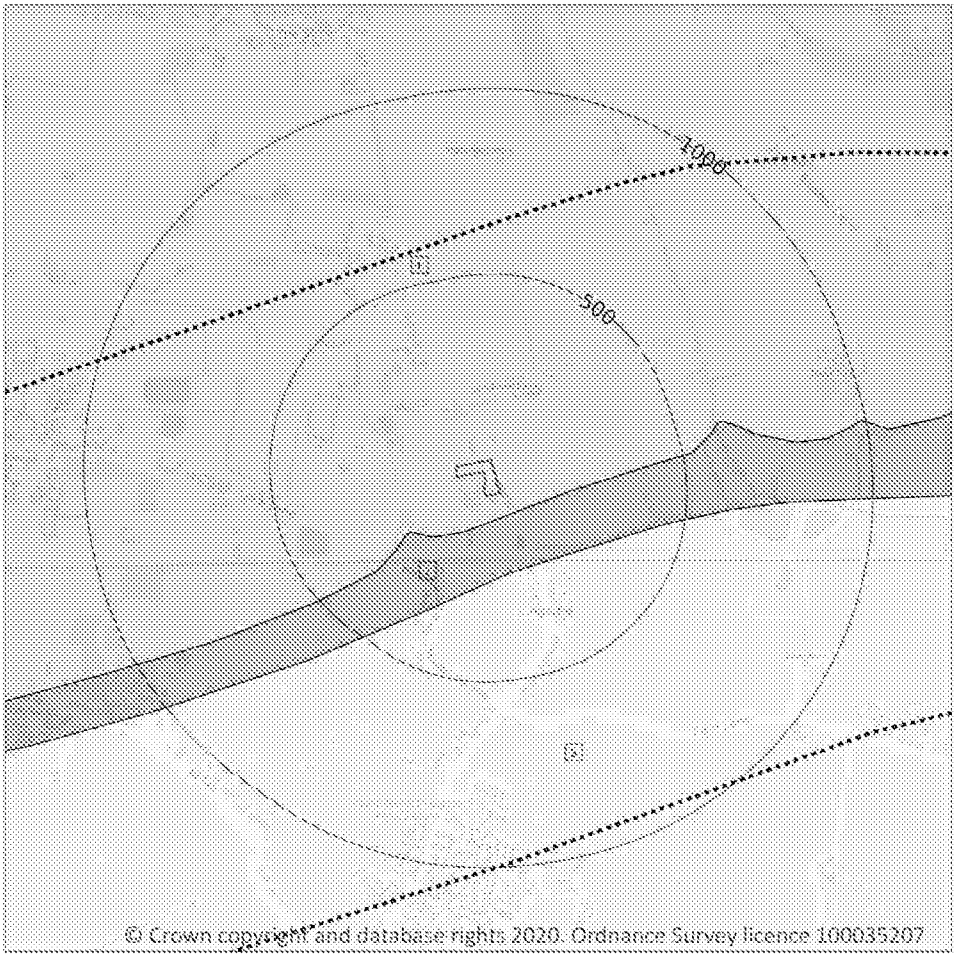
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



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Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m **3**

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 78**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LC-XCZS**	**LONDON CLAY FORMATION - CLAY, SILT AND SAND**	**YPRESIAN**
2	61m S	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN

ARUN DISTRICT COUNCIL Y/63/20/DOC

ID	Location	LEX Code	Description	Rock age
3	211m S	LPCK-CHLK	LEWES NODULAR CHALK FORMATION, SEAFORD CHALK FORMATION, NEWHAVEN CHALK FORMATION, CULVER CHALK FORMATION AND PORTSDOWN CHALK FORMATION (UNDIFFERENTIATED) - CHALK	TURONIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes

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	2

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 81**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	2

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.

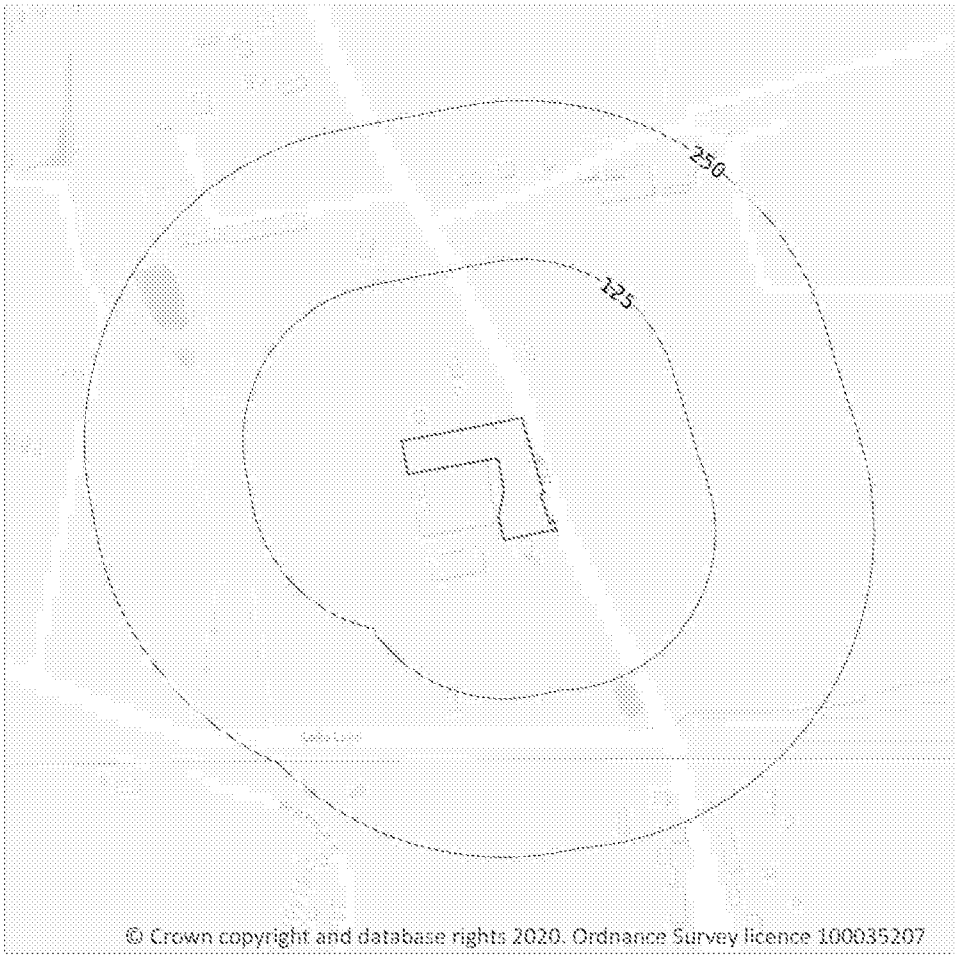
Features are displayed on the Natural ground subsidence - Running sands map on **page 82**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**

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



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Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

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

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 84**

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	2

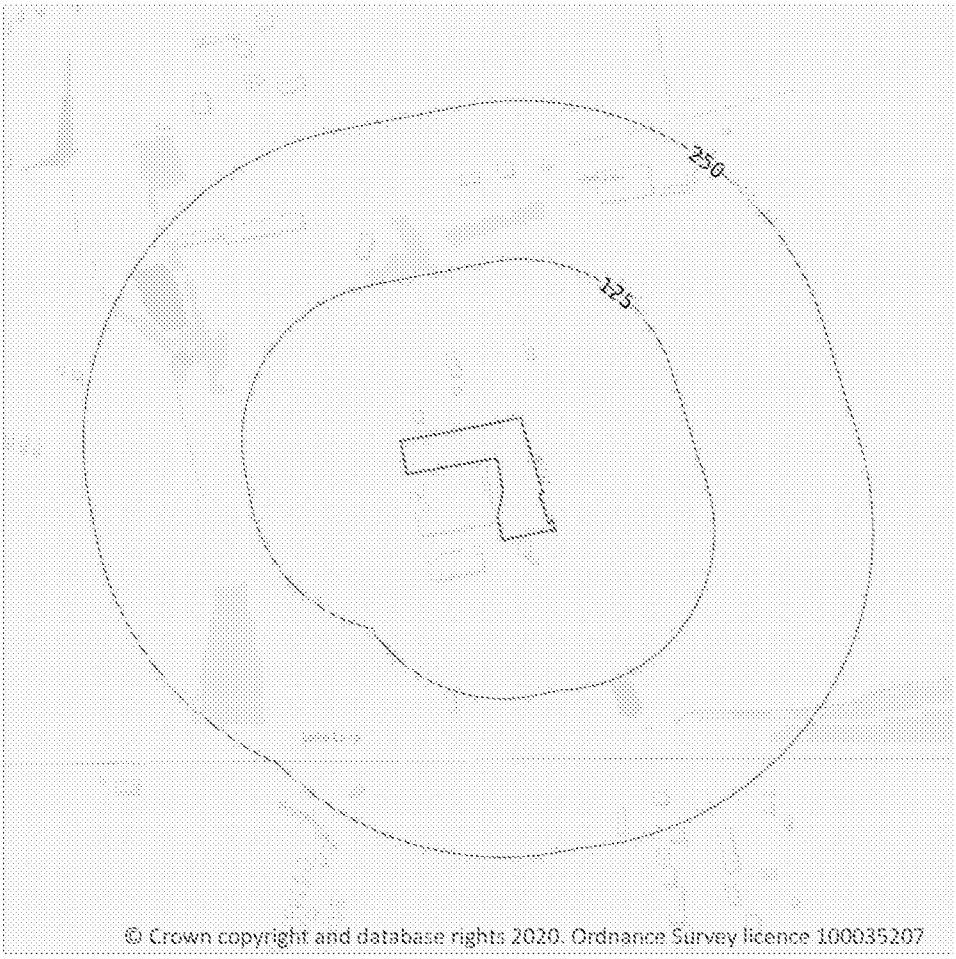
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 85**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



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Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	1

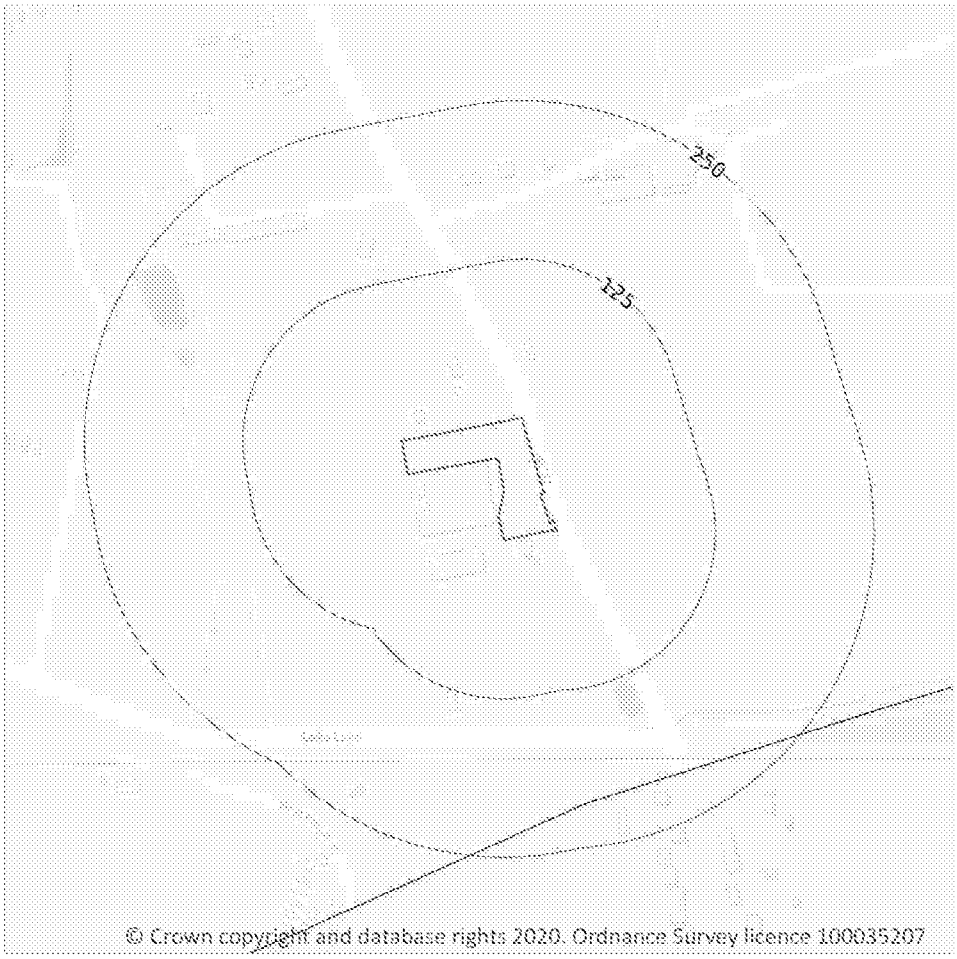
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

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

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 87**

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 Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	4

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 88**

ID	Location	Land Use	Year of mapping	Mapping scale
1	125m SE	Pond	1991	1:10000
2	174m W	Ponds	1991	1:10000
A	248m NW	Reservoir	1991	1:10000
A	248m NW	Reservoir	1978	1:10000

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	0

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

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

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

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

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

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

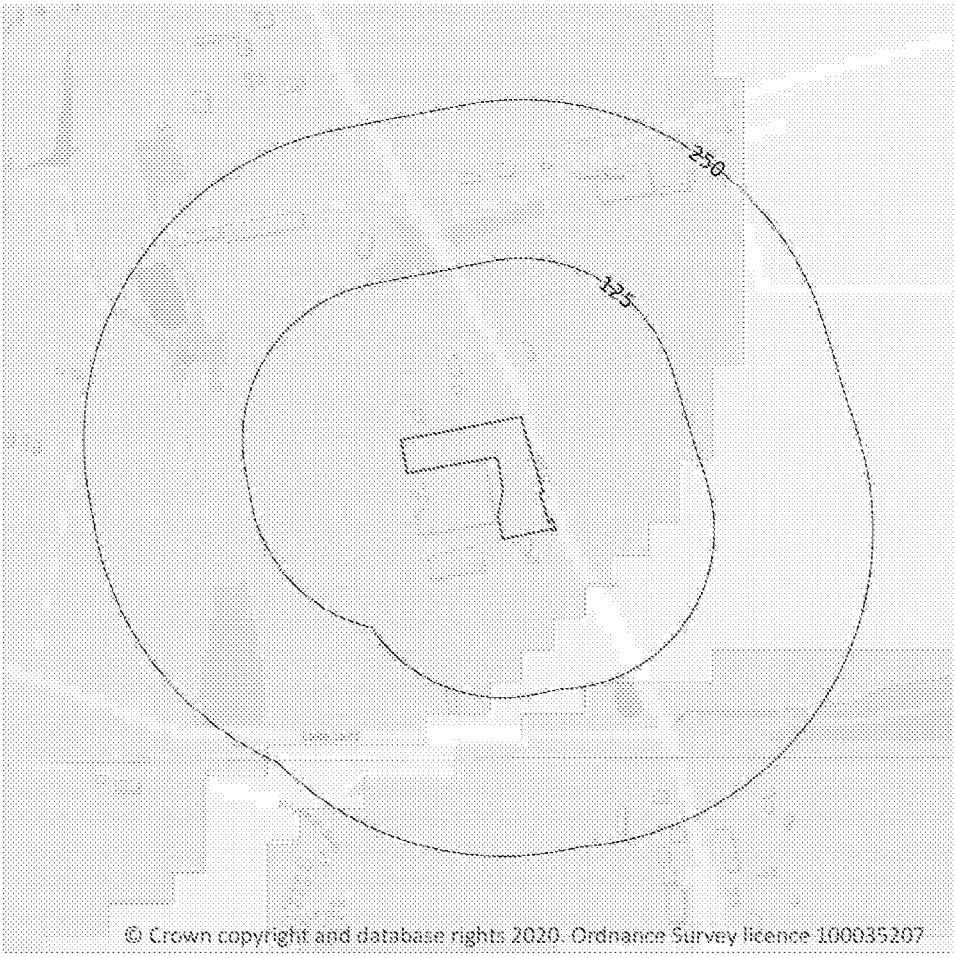
18.13 Clay mining

Records on site	0

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

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

19 Radon



Site Outline

Search buffers in metres (m)

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

19.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 92**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 1% and 3%**	**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**
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**
7m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
7m 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.

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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.