

Land Contamination
Preliminary Risk Assessment

Former Storage Yard, 5 Brighton Road, Shoreham-by-sea.

March 2021

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22/03/2021

Ed Deeman

Cayuga Homes

Document Control:

Project no.	Project
10500	Site at 5 Brighton Road, Shoreham-by-sea

Rev	Written by:	Checked by:	Authorised by:	Date:
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1. Introduction

1.1 Phlorum Ltd has been commissioned by Cayuga Homes to undertake a Phase 1 Preliminary Risk Assessment (PRA), land contamination desk study assessment, of the proposed development of 5 Brighton Road, Shoreham-by-sea (NGR) TQ 23321 04944.

1.2 It is understood that the study site comprises a vacant plot of land without standing structures.

1.3 Contamination assessments are undertaken in three phases. The results of this Phase 1 (PRA) should provide sufficient information to enable a Phase 2 intrusive site investigation and risk assessment to be effectively undertaken, if necessary. The Phase 2 can sometimes be done in stages. Depending on the results of the Phase 2, a risk management and site remediation (Phase 3) could then subsequently be undertaken, if necessary.

1.4 This report involved the following:

- a visit of the site, undertaken by Phlorum, on 12th March 2021;
- review of data from the Environment Agency (EA), local authority[1] and British Geological Survey (BGS) for the site;
- review of geological and hydro-geological maps of the site;
- review of publicly available map data; and
- Enviro-Insight and Geo-Insight reports produced by Groundsure were also obtained. A copy of the Groundsure data is shown in Appendix A.

1.5 This report outlines the findings of the Phase 1 contaminated land desk study assessment. This report is based on the end use of the site being three block of residential flats with associated parking spaces.

[1] Local authority for the study site is Adur & Worthing Council.

2. Site Sensitivity

2.1 The aim of this section is to review the main potential receptors and pathways for any contaminants on site. The main source of information was obtained from the Groundsure reports of the site.

Site Location and Adjacent Land Uses

2.2 The site is located on the south side of Brighton Road, in Shoreham-by-sea. The river Adur bounds the south of the site, approximately 500m north of the estuary into The Channel. Industrial lands are located both to the west and east of the site and further industrial units are located beyond Brighton Road to the north. Residential dwellings with garden are located to the north-east, with the railway further beyond.

2.3 The site is approximately 950m south-west of Southwick train station, 2km south of Shoreham bypass and 2.5km east of Brighton City Airport.

Geology

2.4 The report is based on the BGS data provided via the Geology of Britain Viewer[2] and from 1:50,000 scale BGS Geological mapping. The bedrock beneath the site is comprised of Tarrant Chalk. It is composed of mainly chalk from the Campanian Age.

2.5 There is one record relating to permeability of bedrock ground within the site, this is as follows:

- On site; Flow Type: Fracture; Permeability: Very High.

2.6 There is no record of geological faults recorded within 500m of the site.

2.7 The site has three superficial deposits recorded beneath the site. These are Head (Diamicton) in the west of the site, Storm Beach Deposits (Gravel) in the east of the site and a small area of Tidal River or Creek Deposits (Silty Clay) in the south-eastern corner of the site.

2.8 However, a large portion of the site lays on artificial deposits or Made Ground.

2.9 There is one record relating to permeability of Made Ground within the site, this is as follows:

- On site; Flow Type: Mixed; Permeability: Very High.

[2] Accessed at http://mapapps.bgs.ac.uk/geologyofbritain/home.html on 9th March 2021.

Hydrogeology

Groundwater Resources

2.10 The Groundwater Vulnerability Map provided by Groundsure is based on Environment Agency Data, which indicates that the bedrock on site is classed as principal aquifer, described as geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support river base flow on a strategic scale.

2.11 The superficial deposits on site are classed as a Secondary A aquifer on Head deposits and as Secondary (Undifferentiated) on Storm beach deposits and Tidal deposits.

Source Protection Zones

2.12 There are no records of Source Protection Zones within 500m from the site.

Surface Water Abstractions

2.13 There are no records of Surface Water Abstraction Licenses within 2,000m of the study site.

Ground Water Abstractions

2.14 There are three Groundwater Abstraction Licences within 2,000m of the study site, but none within 500m. The closest is located 900m west of the site, with Licence No. So/041/0022/015. For further details please refer to Appendix A.

Potable Water Abstraction Licences

2.15 There are no Potable Water Abstraction Licences within 2,000m of the study site.

Water Discharges Consents

2.16 There are 19 records of licensed discharge consent within 500m of the site, of which three are recorded within 100m from the site and described below. Further details to be found in Appendix A of this report.

- 2m south-west of the site; Address: Kingston Wharf, Brighton Road, Southwick. Effluent Type described as trade discharges received to controlled sea. Permit No. S01753. Issued on 13/09/1968 and revoked on 31/03/1997;
- 64m west of the site; Address: Dolphin Tank emergency overflow, Dolphin Road, Shoreham. Effluent Type described as sewage discharges and sewer storm overflow received into saline estuary. Permit No. D00027. Issued on 01/04/1991 and revoked on 28/04/1994; and

- 70m west of the site; Address: Dolphin Tank emergency overflow, Dolphin Road, Shoreham. Effluent Type described as sewage discharges from pumping station discharged Shoreham Harbour. Permit No. A01002. Issued on 10/03/2003. Not revoked.

Mineral Deposits and Mining

2.17 There are two records of BritPits within 500m from the site. These are respectively located 157m west of the site, used for marine sand and gravel and now closed, and 263m west of the site used for marine sand and gravel but still open.

2.18 There are 11 surface ground working within 250m from the site with one recorded on site as 'Unspecified wharf'. These are historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled. These features will be described in more details in Chapter 4.

2.19 There are two records of Non-Coal Mining Cavities within 500m of the study site boundary. One is recorded onsite and described as follow:

- Commodity: Chalk; Class A. Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not to be considered.

2.20 There are no records of the flowing mining activities within 500m from the study site:

- Natural cavities;
- Underground workings;
- Mining cavities;
- JPB mining areas (data source Johnson Poole Bloomer);
- Coal mining;
- Brine areas;
- Gypsum areas;
- Tin mining; and
- Clay mining.

3. Published Records

3.1 The aim of this section is to review the published records of sensitive areas and potential hazardous activities on, under or around the site. The main source of information was the Groundsure reports for the site.

Current and Recent Industrial Data

3.2 There are 25 records of current industrial land uses within 250m from the site. None of the records were identified as on site, but seven were recorded within 100m from the site, including the Shoreham Harbour and associated warehouses, of which the site was formerly part along with several other commercial and light industrial activities. The closest warehouse is recorded 27m to the west.

3.3 There are no records of the following current industrial infrastructure within 500m of the study site:

- Current or recent petrol stations;
- Sites determined as contaminated land;
- National Grid High Voltage Underground Electricity Transmission Cables; and
- National Grid High Pressure Gas Transmission Pipelines.

Environmental Permits and Pollution Incidents

3.4 There is one record of Hazardous substance storage/usage within 500m from the study site. This was recorded 427m west of the site, issued in 1992 and now withdrawn. This was associated with GB Barnes Ltd, for wholesale gas cylinder storage.

3.5 There are five records of Part B Activities and Enforcements within 500m of the study site. These are detailed below:

- 95m and 215m west of the site; two Historical Part B permits for use of bulk cement for Pioneer Aggregates. No enforcement notified.
- 366m north-west of the site; Historical Part B permit for coating processes. No enforcement notified.
- 395m west of the site; Historical Part B permit for respraying of road vehicles. No enforcement notified.
- 481m east of the site; Current Part B permit for use of bulk cement. No enforcement notified.

3.6 There are 10 records of Pollution Incidents; none of them recorded on site, with the closest located 281m west of the site, dated 20/02/2002, Identification No. 59516 described as dust to have had Minor effect (Category 3) on Air and Land.

3.7 There are no records of industrial sites holding the following licenses and/or authorisations within 500m from the study site:

- Notification of Installation Handling Hazardous Substances (NIHHS);
- Control of Major Accident Hazards (COMAH);
- Regulated explosive sites;
- Historic IPC authorisations;
- Part A (1) and IPPC Authorised Activities;
- Part A (2) Licensed Industrial Activities;
- Radioactive Substances Authorisations;
- Category 3 or 4 Radioactive Substances Authorisations;
- Red List Discharge Consents (potentially harmful discharges to controlled waters);
- Water Industry Referrals (potentially harmful discharges to the public sewer);
- List 1 Dangerous Substances Inventory Sites;
- List 2 Dangerous Substance Inventory Sites;
- Pollution inventory substances;
- Pollution inventory waste transfers; and
- Pollution inventory radioactive waste.

Landfill and Waste Sites

3.8 There are two records of Historical waste sites within 500m of the study site. These are:

- A scrap yard, located 337m west of the site, dated between 1985 and 1995;
- A recycling centre located 402m west of the site, no date provided.

3.9 There is one record of a Licensed Waste Site within 500m from the study site. This is located 466m south-east of the site described as metal recycling site, licence No. COO002, issued in 1995 and with an EPR reference: EA/EPR/NP3094HA/V004.

3.10 There are two records of waste exemptions within 2,500m from the study site. A waste exemption is needed for activities involving storage, treatment, use or disposal of waste that are exempt from needing a permit. Only one record is located on site, it is associated with J Davies Building Limited, with reference WEX257302 for use of waste in construction. For other details please refer to Appendix A of this report.

3.11 There are no records of the following Landfill or Waste sites within 500m of the study site:

- Active or recent landfill;
- Historical landfill (BGS records);
- Historical landfill (LA/mapping records); and
- Historical landfill (EA/NRW records).

Historical Land Uses

3.12 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps indicate 72 records of historical industrial land uses. The large majority of these are recorded off-site and described in Chapter 4 of this report. Several features are recorded on site or immediately adjacent to it, mainly associated with a Sawing and Planing Mill located on and off site between 1873 and 1964 and a Ship Yard dated 1873.

3.13 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps indicate 30 records of historical tank features within 500m of the search boundary. None of them recorded on site, with the closest recorded 117m north-west of the site in 1989. For full details please see Appendix A of this report.

3.14 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps indicate 20 records of historical energy features within 500m of the search boundary. None is recorded on site but the closest is located only a 1m west of the site, noted as electricity substation and dated 1970. All the rest of records are also electricity substation. For full details please see Appendix A of this report.

3.15 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps indicate seven records of historical garages within 500m of the search boundary, with the closes located 399m east of the site dated 1950.

3.16 The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps revealed no records of the following historical industrial sites with 500m of the study site:

- Historical Petrol Stations; and
- Historical Military Sites.

Natural Hazardous Findings

3.17 The maximum **Shrink-Swell** hazard rating identified on the study site is **Very Low**. Ground conditions predominantly low plasticity.

3.18 The maximum **Running Sand** hazard rating identified on the study site is **Moderate**. Running sand conditions are probably present. Constrains may apply to land uses involving excavation or the addition or removal of water.

3.19 The maximum **Compressible Ground** hazard rating identified on the study site is **Moderate**. Compressible and uneven settlement hazard are probably present. Land use should consider specifically the compressibility and variability of the site.

3.20 The maximum **Collapsible Rocks** hazard rating identified on the study site is **Very Low**. Deposits with potential to collapse when loaded and saturated are unlikely to be present.

3.21 The maximum **Landslide** hazard rating identified on the study site is **Very Low**. Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides.

3.22 The maximum **Soluble Rocks** hazard rating identified on the study site is **Very Low**. Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not to be considered,

Radon

3.23 The property is not in a Radon Affected Area, as between 1% and 3% of properties are above the Action Level, therefore, no Radon protective measures are necessary under publication BR211 by the Building Research Establishment.

Environmental Designations

3.24 The site is wholly within the Brighton and Lewes Downs Biosphere Reserve.

3.25 The next closest statutory designated site is Shoreham Beach Local Nature Reserve (LNR) situated approximately 366m south of the site.

3.26 There is a Site of Special Scientific Interest (SSSI) recorded 1,629m west of the site, known as Adur Estuary.

3.27 The site falls within the outer limits of the Impact Risk Zone (IRZ) for the River Adur SSSI.

3.28 The Sussex Chalk Nitrate Vulnerable Zone is located on site. NVZ ID: G56.

3.29 There are no records of the following Designated Environmentally Sensitive Sites within 2,000m of the study site:

- Ramsar sites;
- Special Areas of Conservation (SAC);
- Special Protection Areas (SPA);
- National Nature Reserves (NNR);
- Designated Ancient Woodland;
- Marine Conservation Zones;
- Green Belt;
- Forest parks; and
- Nitrate Sensitive Areas.

Visual and Cultural Designations

3.30 There is one record of Listed Buildings within 250m from the study site. This is Kingston Lighthouse located 95m east of the site.

3.31 There is one record of Conservation Areas within 250m from the study site. This is Kingston Buci, located 85m north of the site.

3.32 There are no records of the following Visual and Cultural Designation within 250m of the study site:

- World Heritage Sites;
- Area of Outstanding Beauty;
- National Park;
- Scheduled Ancient Monuments; and
- Registered Parks and Gardens.

Borehole Records

3.33 There are 21 records of boreholes within 250m of the site boundary according to BGS Borehole Records. The closest are all associated with R.N.L.I Shoreham and located 27m east of the site. Their position can be checked in Appendix A of this report.

4. Historic Records

4.1 This section is based on historic maps (scales: 1:2,500, 1:1,250, 1:10,560, 1:10,000) of the area dating back to 1868, and aerial photography publicly available for the site. The maps are included in Appendix B. All measurements are approximate.

The Site and within 100m of the Study Site

4.2 The site was developed sometime before the first available historical map for the area dated 1874. At this time a ship building yard and associated structures were located in the west of the site, and a customs watch house was labelled in the eastern part. Ancillary units located in the north-eastern corner of the site were also labelled as 'Pilots' Watch House' and 'Barometer'. By 1898 the east of the site was in much the same use and layout while the west had been cleared and appeared vacant but associated with the immediately adjacent to the west Sawing and Planing Mills. In 1912 the west of the site was completely occupied by part of a larger building which extended off site to the west and was associated with the abovementioned mills. A review of historical mapping associated with the area showed that by 1952 the west of the site was now occupied by large open sided warehouse still associated with the mills but detached from the main building. On the eastern part of the site the watch house had been extended and labelled as Old Watch House, with a slipway noted to connect its yard to the river water. No major changes were recorded until 1973, by which time the east of the site had the watch house main building merged with few ancillary units and labelled as The Lighthouse Club, and had an associated dinghy parking area facing the river. Sometime between 1973 and 1994 the lighthouse club had been demolished. Also at this time the vacant plot of land appeared associated with the building to the west which was now labelled as an Auction Mart. No further changes were recorded until 2017, by which time the building to the west had been demolished, bringing the site to resemble its current layout.

4.3 The above mentioned Sawing and Planing Mills, was initially labelled as a Steam Sawing and Planing Mills with the main building located 80m west of the site, but with the associated yard immediately adjacent to the west of the site. A review of historical maps available for the area showed that the mills structures had been extended exponentially through the years, being also noted on the study site as described in the paragraph above. By 1963 it was only labelled as a Mills, with the building adjacent to the study site labelled as a Depot. No major changes were recorded until 1951 by which time the mills' buildings to the west of the site were cleared and the area labelled as Kingston Wharf and depot, with three hoppers noted across the area. By 1985 a warehouse had been developed immediately adjacent to the western site boundary, to resemble its current layout.

4.4 A timber yard was noted 20m north of the site, on the opposite side of the road in 1898. No charges were recorded until 1930 by which time two units had been developed, with the easternmost one noted to be an open sided barn type of structure. By 1951 the western building was labelled as an engineering works. In 1964 both buildings in the area were labelled as works, with an associated depot. The buildings on the area remained labelled as work or depot until 1985, by which time the works building to the east was cleared, and redeveloped into a commercial/light industrial building in 1994. By this time also the other industrial buildings in the area had been converted into commercial/light industrial use. No further changes were recorded since then.

4.5 Railway line ran 90m north of the site since at least 1874.

The Surrounding Area within 250m of the Study Site

4.6 Several industrial buildings were identified 200m west of the site and further extending in the same direction since 1874. It is likely that historically majority of the buildings were used for goods storage, associated with Shoreham Harbour.

4.7 Sewage tanks were noted 200m north-west from the site in 1951. The tank is labelled on maps until 1982, then potentially covered or filled.

4.8 A further industrial estate was noted to the west of the sewage tanks and 250m north-west from the study site from 1980.

The Surrounding Area within 750m of the Study Site

4.9 Historically, Dolphin soap works were noted 500m west of the site between 1896 and 1963, by which time the associated structures were labelled as ‘works’ and part of a larger industrial area extending further to the west.

4.10 Chemical works with associated structures and tanks were observed on the other bank of the Adur estuary, 550m south-west of the site between 1896 and some timed between 1963 and 1968. By 1968 the chemical works have been cleared and the area redeveloped into a number of depots.

5. Site Walkover

5.1 A member of Phlorum staff conducted a site walkover of the site on 12th March 2021 in order to assess any contamination issues. The weather conditions during the survey were sunny and dry.

5.2 The photos of the site taken during the walkover are included as Appendix D and observations in the text are included as Target Notes and on Figure 1 in Appendix E.

5.3 The site comprises a plot almost entirely covered in hardstanding, which was part of a forecourt associated with a large warehouse, recently demolished.

5.4 The west of the site was mainly covered in concrete slabs, where the warehouse was historically standing. The east of the site had some areas of bare made ground, and areas with broken concrete or tarmac. The eastern part was historically used as storage yard and car parking area.

5.5 Ruderal vegetation was noted along the boundary, and growing from the cracks of the concrete slabs.

5.6 No obvious stains were noted during the site visit across the site.

5.7 A small electrical cabinet [TN1], which was locked, was noted at the entrance a few meters away from the main gate towards the centre of the site.

5.8 Along the north-west boundary, parallel to Brighton Road, there were a number of services exposed and disconnected. All were entering from underneath Brighton Road.

5.9 These were: a gas pipe closed with a tap and a valve [TN2]; an overflow pipe with a water tank [TN3]; an electrical cable ending in a cable joint box but then disconnected [TN4]

5.10 A small amount of general rubbish was scattered around the whole perimeter.

Summary

5.11 The site was visited on 12th March 2021, and all grounds of the site were surveyed for evidence of contamination when the weather was sunny and dry.

5.12 The major potential sources of contamination observed during the visit are old services disconnected along the north-western boundary and general waste scattered on site. However, the whole site was empty and cleared, without obvious signs of recent or current soil contamination observed.

6. Contamination Risk Assessment

General

6.1 Based on the previous information reviewed and obtained for this report an initial qualitative risk assessment can be undertaken. This assessment is based on the development of an appropriate conceptual model in accordance with current UK guidelines set out within Contaminated Land (England) Regulations 2006, as amended, Section 57 of the Environmental Protection Act 1990 and other guidance (e.g. BS10175:2011+A2:2017, the National Planning Policy Framework).

6.2 For environmental risk to be present there must be three conditions simultaneously coexisting, namely:

- A source is a contaminant or potential pollutant which has the potential to cause harm, or to cause pollution of controlled waters;
- A receptor (e.g. end-user, off-site water abstraction) which can be harmed by the site conditions; and
- A plausible pathway is a route or means of connecting the source and receptor such that the harm could actually occur.

6.3 The relationship between a contaminant source and receptor, by means of a pathway, is termed a "pollutant linkage". A "pollutant linkage" is only considered to exist if all three elements of the linkage are present (i.e. source, pathway and receptor). Where one of these conditions is absent, there is, by definition, no risk. The risk is itself considered in terms of its significance and this is qualitatively assessed on the basis of magnitude of harm that may occur and likelihood of that harm occurring.

Potential Sources of Contamination

6.4 The site comprises a vacant plot covered in hardstanding. The following potential sources of contamination have been identified from the desk study and site walkover of external areas:

- potential leakage from the hydraulic/gas and electric system;
- general rubbish found at the site;
- potential asbestos in the ground;
- ground gas.

Potential Pathways

6.5 The site lays over a Principal aquifer for the bedrock geology and a Secondary A aquifer for the superficial deposits. Normally the higher the organic matter and clay content within soil, the greater the adsorption of organic compounds and the lower their mobility. However, other properties of the soil, such as water and organic content will also influence the migration potential of contaminants.

6.6 The following potential pathways have been identified in the context of the current site condition:

- Leaching of localised mobile inorganic and organic contamination into ground water;
- buried pipes and services;
- soil ingestion, dermal contact, inhalation;
- plant uptake;
- migration of volatile contaminants through the ground; and
- chemical attack.

Potential Receptors

6.1 The risk of contamination exposure to any future ground workers can generally be mitigated via the use of appropriate Health & Safety Risk Assessments and PPE. The following potential receptors have been identified:

- Construction workers;
- future site users;
- neighbouring site users;
- ground/surface water;
- landscaping areas (vegetation); and
- services.

7. Conclusions

7.1 The geological records indicate that the geology of the site in Tarrant Chalk, with Head, Storm Beach Deposits and Tidal River Deposit as superficial layers. The actual presence of contamination in, on, or under the ground can only be confirmed by an intrusive site investigation.

7.2 The main potential contamination sources on and off the site are from their industrial historical activity.

7.3 The historic use of the site as building ship yard and sawing and planning mills are considered to be a **Moderate** risk as a potential contamination source to current site users, off-site users, future users and construction workers and also a **Moderate** risk to water bodies and physical structures.

7.4 The historic and current use off-site as sawing and planning mills and industrial warehouse are considered to be a **Moderate** risk as a potential contamination source to current site users, off-site users, future users and construction workers and also a **Moderate** risk to water bodies and physical structures.

7.5 The future use of the site as residential flats without garden is considered to be a **Negligible** risk as a potential contamination source to current site users, off-site users, future users and construction workers and physical structures; and also a **Low** risk to waterbodies.

7.6 On the basis of the above we consider the risk of contamination at the site is **Moderate** in regards to land contamination.

7.7 We recommend an extensive site investigation with analysis of soil samples to confirm whether and where the site comes with a legacy of land contamination due to its historic uses and its associated liability.

7.8 Due to immediate proximity of the river to the site, there is a concern of built-up organic material within the superficial deposit which could cause the presence of ground gas; therefore, depending on what is revealed in the borehole logs during the site investigation gas monitoring may be required for the site.

7.9 If this investigation identifies any contamination on the site then this will have to be remediated before any further development. A remediation Strategy and a Verification Plan will be likely to be required by the Local Authority.

8. References

8.1 Environment Agency (2004) Model Procedures for the Management of Land Contamination; Contaminated Land Report 11.

8.2 REP 211 Radon (2015): guidance on protective measures for new buildings

8.3 BS 10175:2011+A2:2017 Investigation of potentially contaminated sites. Code of practice. Code of practice.

Site Walkover Figure



Figure 1: Former Storage Yard, 5 Brighton Road, Shoreham-by-sea

Scale: NTS
Job no.: 10500
Drawn by: ES
Printed at: 18/03/2021
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Appendix A

Groundsure Report

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

4, BRIGHTON ROAD, SHOREHAM-BY-SEA, BN43 6RG

Order Details

Date: 09/03/2021

Your ref: 10500

Our Ref: GS-7639814

Client: Phlorum

Site Details

Location: 523333 104924

Area: 0.57 ha

Authority: Adur and Worthing Council



Summary of findings p. 2

OS MasterMap site plan p.13

Aerial image p. 8

groundsure.com/insightuserguide

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

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	Historical industrial land uses	8	4	24	36	-
17	1.2	Historical tanks	0	0	12	18	-
19	1.3	Historical energy features	0	1	4	15	-
20	1.4	Historical petrol stations	0	0	0	0	-
20	1.5	Historical garages	0	0	0	7	-
20	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
21	2.1	Historical industrial land uses	8	6	33	45	-
25	2.2	Historical tanks	0	0	21	23	-
27	2.3	Historical energy features	0	1	14	30	-
29	2.4	Historical petrol stations	0	0	0	0	-
29	2.5	Historical garages	0	0	0	12	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
30	3.1	Active or recent landfill	0	0	0	0	-
30	3.2	Historical landfill (BGS records)	0	0	0	0	-
31	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
31	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
31	3.5	Historical waste sites	0	0	0	3	-
32	3.6	Licensed waste sites	0	0	0	1	-
32	3.7	Waste exemptions	1	0	1	0	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
34	4.1	Recent industrial land uses	0	3	22	-	-
36	4.2	Current or recent petrol stations	0	0	0	0	-
36	4.3	Electricity cables	0	0	0	0	-
36	4.4	Gas pipelines	0	0	0	0	-
36	4.5	Sites determined as Contaminated Land	0	0	0	0	-

37	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
37	4.7	Regulated explosive sites	0	0	0	0	-
37	**4.8**	**Hazardous substance storage/usage**	0	0	0	1	-
37	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
38	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
38	**4.11**	**Licensed pollutant release (Part A(2)/B)**	0	0	2	3	-
39	4.12	Radioactive Substance Authorisations	0	0	0	0	-
39	**4.13**	**Licensed Discharges to controlled waters**	0	1	7	11	-
42	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
42	4.15	Pollutant release to public sewer	0	0	0	0	-
42	4.16	List 1 Dangerous Substances	0	0	0	0	-
42	4.17	List 2 Dangerous Substances	0	0	0	0	-
42	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	0	10	-
44	4.19	Pollution inventory substances	0	0	0	0	-
44	4.20	Pollution inventory waste transfers	0	0	0	0	-
44	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
45	**5.1**	**Superficial aquifer**	Identified (within 500m)				
47	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
49	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
50	**5.4**	**Groundwater vulnerability- soluble rock risk**	Identified (within 0m)				
51	5.5	Groundwater vulnerability- local information	None (within 0m)				
52	**5.6**	**Groundwater abstractions**	0	0	0	0	3
53	5.7	Surface water abstractions	0	0	0	0	0
54	5.8	Potable abstractions	0	0	0	0	0
54	5.9	Source Protection Zones	0	0	0	0	-
54	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
55	**6.1**	**Water Network (OS MasterMap)**	0	1	1	-	-

56	6.2	Surface water features	0	0	0	-	-
56	**6.3**	**WFD Surface water body catchments**	1	-	-	-	-
56	**6.4**	**WFD Surface water bodies**	0	1	0	-	-
57	**6.5**	**WFD Groundwater bodies**	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
58	**7.1**	**Risk of Flooding from Rivers and Sea (RoFRaS)**	High (within 50m)				
59	7.2	Historical Flood Events	0	0	0	-	-
59	7.3	Flood Defences	0	0	0	-	-
59	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
59	7.5	Flood Storage Areas	0	0	0	-	-
60	**7.6**	**Flood Zone 2**	Identified (within 50m)				
61	**7.7**	**Flood Zone 3**	Identified (within 50m)				
Page	Section	Surface water flooding					
62	**8.1**	**Surface water flooding**	1 in 30 year, 0.1m - 0.3m (within 50m)				
Page	Section	Groundwater flooding					
64	**9.1**	**Groundwater flooding**	High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
65	**10.1**	**Sites of Special Scientific Interest (SSSI)**	0	0	0	0	1
66	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
66	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
66	10.4	Special Protection Areas (SPA)	0	0	0	0	0
66	10.5	National Nature Reserves (NNR)	0	0	0	0	0
67	**10.6**	**Local Nature Reserves (LNR)**	0	0	0	1	0
67	10.7	Designated Ancient Woodland	0	0	0	0	0
67	**10.8**	**Biosphere Reserves**	1	0	0	0	0
68	10.9	Forest Parks	0	0	0	0	0
68	10.10	Marine Conservation Zones	0	0	0	0	0
68	10.11	Green Belt	0	0	0	0	0
68	10.12	Proposed Ramsar sites	0	0	0	0	0

68	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
69	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
69	10.15	Nitrate Sensitive Areas	0	0	0	0	0
69	**10.16**	**Nitrate Vulnerable Zones**	1	0	0	0	3
70	**10.17**	**SSSI Impact Risk Zones**	2	-	-	-	-
71	**10.18**	**SSSI Units**	0	0	0	0	4
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
74	11.1	World Heritage Sites	0	0	0	-	-
75	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
75	11.3	National Parks	0	0	0	-	-
75	**11.4**	**Listed Buildings**	0	0	1	-	-
76	**11.5**	**Conservation Areas**	0	0	1	-	-
76	11.6	Scheduled Ancient Monuments	0	0	0	-	-
76	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
77	**12.1**	**Agricultural Land Classification**	Urban (within 250m)				
78	12.2	Open Access Land	0	0	0	-	-
78	12.3	Tree Felling Licences	0	0	0	-	-
78	12.4	Environmental Stewardship Schemes	0	0	0	-	-
78	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
79	**13.1**	**Priority Habitat Inventory**	0	0	10	-	-
80	**13.2**	**Habitat Networks**	3	0	4	-	-
80	**13.3**	**Open Mosaic Habitat**	0	0	1	-	-
81	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
82	**14.1**	**10k Availability**	Identified (within 500m)				
83	**14.2**	**Artificial and made ground (10k)**	1	0	1	3	-
85	**14.3**	**Superficial geology (10k)**	3	1	4	4	-

86	14.4	Landslip (10k)	0	0	0	0	-
87	14.5	Bedrock geology (10k)	1	2	1	0	-
88	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
89	15.1	50k Availability	Identified (within 500m)				
90	15.2	Artificial and made ground (50k)	1	0	0	1	-
91	15.3	Artificial ground permeability (50k)	1	0	-	-	-
92	15.4	Superficial geology (50k)	3	1	2	3	-
93	15.5	Superficial permeability (50k)	Identified (within 50m)				
93	15.6	Landslip (50k)	0	0	0	0	-
94	15.7	Landslip permeability (50k)	None (within 50m)				
95	15.8	Bedrock geology (50k)	1	1	1	0	-
96	15.9	Bedrock permeability (50k)	Identified (within 50m)				
96	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
97	16.1	BGS Boreholes	0	4	17	-	-
Page	Section	Natural ground subsidence					
99	17.1	Shrink swell clays	Very low (within 50m)				
101	17.2	Running sands	Moderate (within 50m)				
103	17.3	Compressible deposits	Moderate (within 50m)				
105	17.4	Collapsible deposits	Very low (within 50m)				
107	17.5	Landslides	Very low (within 50m)				
109	17.6	Ground dissolution of soluble rocks	Very low (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
111	18.1	Natural cavities	0	0	0	0	-
112	18.2	BritPits	0	0	1	1	-
112	18.3	Surface ground workings	1	1	9	-	-
113	18.4	Underground workings	0	0	0	0	0
113	18.5	Historical Mineral Planning Areas	0	0	1	0	-

113	**18.6**	**Non-coal mining**	1	1	0	0	0
114	18.7	Mining cavities	0	0	0	0	0
114	18.8	JPB mining areas	None (within 0m)				
114	18.9	Coal mining	None (within 0m)				
114	18.10	Brine areas	None (within 0m)				
115	18.11	Gypsum areas	None (within 0m)				
115	18.12	Tin mining	None (within 0m)				
115	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
116	**19.1**	**Radon**	Between 1% and 3% (within 0m)

Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
117	**20.1**	**BGS Estimated Background Soil Chemistry**	3	4	-	-	-
117	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
118	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
119	21.1	Underground railways (London)	0	0	0	-	-
119	21.2	Underground railways (Non-London)	0	0	0	-	-
120	21.3	Railway tunnels	0	0	0	-	-
120	**21.4**	**Historical railway and tunnel features**	6	4	27	-	-
121	21.5	Royal Mail tunnels	0	0	0	-	-
122	21.6	Historical railways	0	0	0	-	-
122	**21.7**	**Railways**	0	0	7	-	-
122	21.8	Crossrail 1	0	0	0	0	-
123	21.9	Crossrail 2	0	0	0	0	-
123	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 28/06/2018

Site Area: 0.57ha

Recent site history - 2015 aerial photograph



Capture Date: 07/06/2015

Site Area: 0.57ha

Recent site history - 2012 aerial photograph



Capture Date: 13/09/2012

Site Area: 0.57ha

Recent site history - 2009 aerial photograph



Capture Date: 27/09/2009

Site Area: 0.57ha

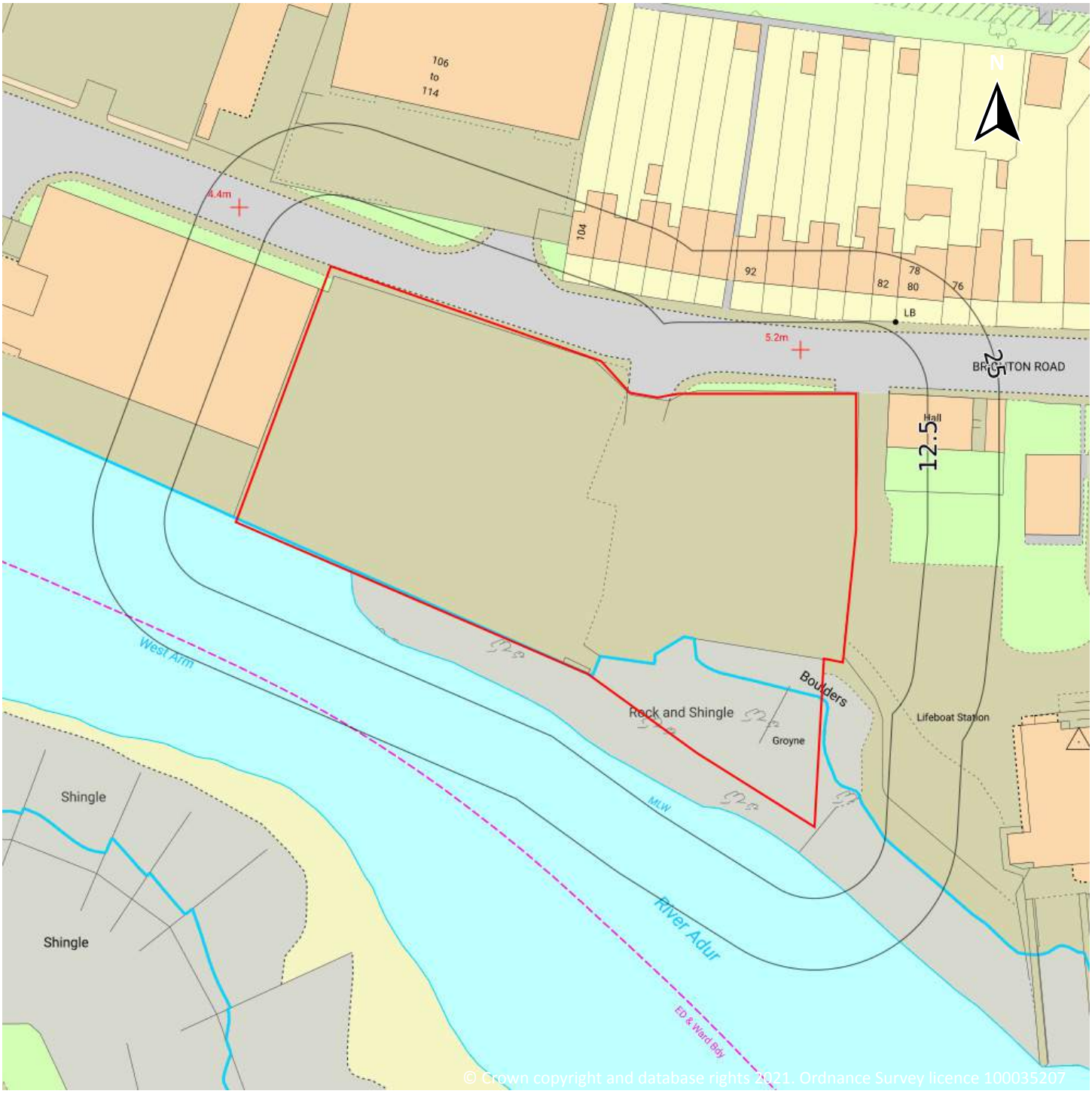
Recent site history - 1999 aerial photograph



Capture Date: 06/09/1999

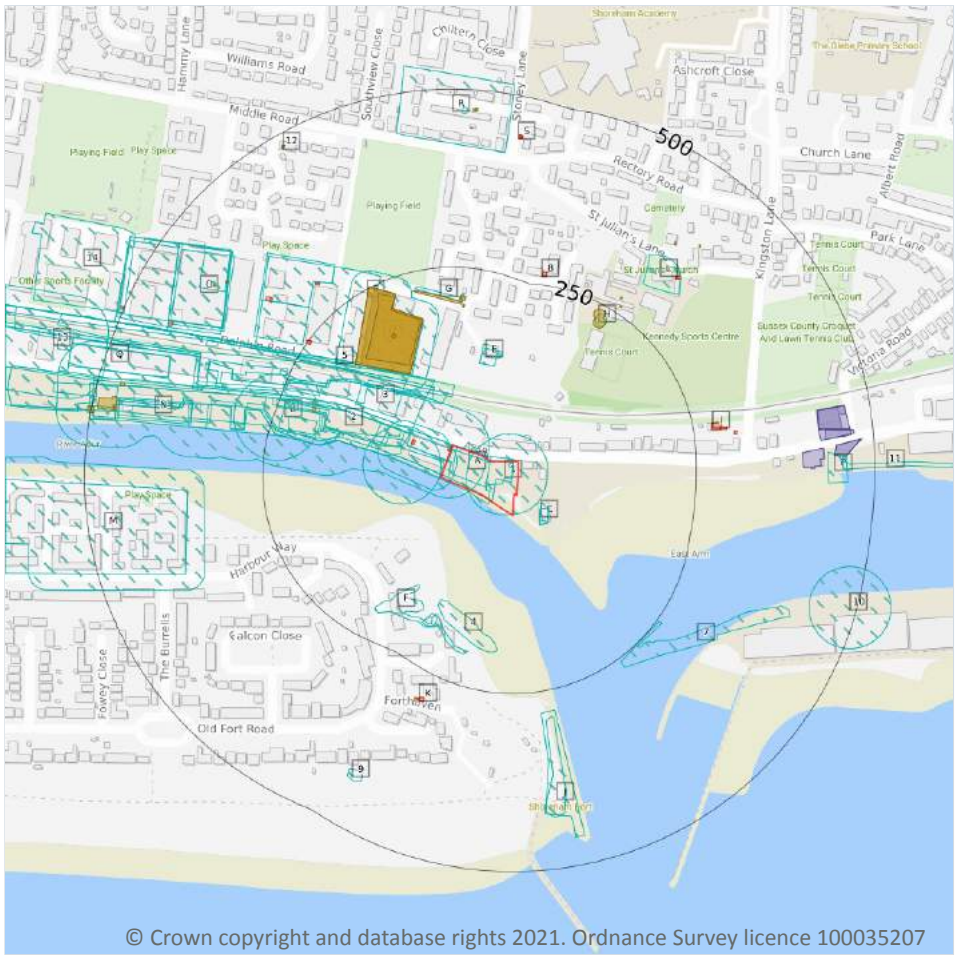
Site Area: 0.57ha

OS MasterMap site plan



Site Area: 0.57ha

1 Past land use



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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	72

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

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

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Lifeboat House**	**1896**	**2153075**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Ship Building Yard**	**1873**	**2138108**
A	**On site**	**Railway Sidings**	**1948**	**2173640**
A	**On site**	**Sawing and Planing Mills**	**1912**	**2191010**
A	**On site**	**Unspecified Wharf**	**1972**	**2266604**
B	**On site**	**Steam Sawing and Planning Mills**	**1873**	**2141035**
B	**On site**	**Railway Sidings**	**1873**	**2218794**
B	**On site**	**Sawing and Planing Mills**	**1948**	**2230077**
B	1m W	Railway Sidings	1912	2244199
A	2m W	Unspecified Wharf	1948	2266518
C	37m E	Lifeboat Station	1968 - 1982	2207927
C	38m E	Boat Station	1963	2167856
B	61m W	Railway Sidings	1963 - 1972	2219712
B	65m W	Sawing and Planing Mills	1896	2247651
B	69m N	Railway Sidings	1873	2196215
B	71m NW	Railway Sidings	1948	2189983
B	71m NW	Railway Sidings	1909	2285199
2	75m W	Railway Buildings	1968 - 1972	2214125
B	77m NW	Railway Sidings	1896	2189828
3	90m NW	Malthouse	1896	2147799
D	92m NW	Unspecified Tank	1968 - 1972	2171529
D	114m NW	Unspecified Tank	1982	2246703
E	122m N	Unspecified Station	1968 - 1972	2271043
E	136m N	Unspecified Station	1982	2248111
F	151m SW	Unspecified Ground Workings	1912	2193560
4	151m SW	Unspecified Pit	1896	2123745
B	153m W	Railway Sidings	1948	2189612
B	156m W	Railway Sidings	1896 - 1909	2276323
B	168m NW	Unspecified Works	1982	2212272

ID	Location	Land use	Dates present	Group ID
F	175m SW	Unspecified Heap	1896	2135798
B	185m W	Unspecified Wharf	1982	2157203
B	187m W	Railway Building	1968 - 1972	2202189
5	193m NW	Railway Station	1873	2152596
B	200m W	Railway Building	1968 - 1972	2293036
G	202m N	Unspecified Tanks	1948	2143630
H	222m NE	Unspecified Tank	1948	2153457
7	251m SE	Quay	1948	2139295
B	252m NW	Coke Ovens	1873 - 1896	2256344
B	253m NW	Unspecified Depot	1968 - 1972	2214702
B	254m NW	Railway Building	1896	2148030
B	275m NW	Railway Building	1896	2148029
J	279m S	Railway Sidings	1896 - 1909	2276688
B	280m NW	Unspecified Works	1968 - 1972	2178222
J	287m S	Railway Sidings	1912	2178304
L	306m NE	Grave Yard	1873	2145539
M	333m W	Unspecified Depot	1968 - 1972	2256848
B	345m NW	Railway Buildings	1873	2163328
M	356m W	Unspecified Depot	1982	2193387
N	359m W	Unspecified Wharf	1909	2293923
B	359m NW	Railway Building	1896	2148026
N	359m W	Unspecified Wharf	1912	2244779
O	359m NW	Unspecified Works	1982	2186732
O	361m NW	Unspecified Factory	1948	2150904
O	362m NW	Nursery	1963	2176232
O	363m NW	Unspecified Commercial/Industrial	1972	2130660
O	363m NW	Unspecified Works	1968	2265052
B	382m NW	Railway Building	1873	2148027

ID	Location	Land use	Dates present	Group ID
O	385m NW	Nursery	1909	2241638
Q	406m W	Unspecified Works	1968 - 1972	2171516
Q	409m W	Unspecified Works	1963	2176837
9	417m SW	Unspecified Heap	1896	2135797
R	418m N	Nursery	1963	2161116
O	432m W	Nursery	1912	2269789
10	433m E	Unspecified Wharf	1972 - 1982	2183998
P	435m E	Quay	1873	2139296
11	456m E	Unspecified Wharf	1948	2202326
R	466m N	Unspecified Tank	1931 - 1947	2199670
Q	467m W	Unspecified Works	1963	2244642
13	495m W	Brick Field	1873	2228795
Q	495m W	Unspecified Works	1982	2171367
Q	496m W	Railway Sidings	1948	2247424
14	497m W	Unspecified Commercial/Industrial	1972	2130658

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**30**

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

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

ID	Location	Land use	Dates present	Group ID
D	117m NW	Unspecified Tank	1989	388199
D	117m NW	Sewage Tank	1951	397312
D	117m NW	Unspecified Tank	1961 - 1970	407275

ID	Location	Land use	Dates present	Group ID
D	128m NW	Unspecified Tank	1980 - 1987	403797
D	172m NW	Unspecified Tank	1999	411372
G	195m N	Unspecified Tank	1951	397102
G	195m N	Unspecified Tank	1951	398159
B	198m W	Unspecified Tank	1985 - 1999	384577
G	199m N	Unspecified Tank	1930	360176
G	204m N	Unspecified Tank	1951	392992
G	204m N	Unspecified Tank	1930	392441
H	218m NE	Unspecified Tank	1898 - 1912	392618
H	259m NE	Unspecified Tank	1930	360175
H	270m NE	Unspecified Tank	1912	360172
L	375m NE	Tank or Trough	1874	379368
O	390m NW	Unspecified Tank	1995	407329
O	390m NW	Unspecified Tank	1965	407505
O	390m NW	Unspecified Tank	1985	410293
L	393m NE	Tank or Trough	1874	379369
O	401m NW	Unspecified Tank	1965	407551
O	402m NW	Unspecified Tank	1985	408995
O	402m NW	Unspecified Tank	1995	389543
R	446m N	Unspecified Tank	1951	360174
Q	462m W	Unspecified Tank	1874	360183
Q	465m W	Tanks	1951	385645
Q	467m W	Unspecified Tank	1898	360181
R	470m N	Unspecified Tank	1912 - 1937	403495
R	471m N	Unspecified Tank	1951	402914
12	479m NW	Unspecified Tank	1989	360177
Q	495m W	Tanks	1951	411108

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	20

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

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

ID	Location	Land use	Dates present	Group ID
A	1m W	Electricity Substation	1970	241636
A	51m W	Electricity Substation	1985	241637
B	201m W	Electricity Substation	1985 - 1999	276779
6	237m NW	Electricity Substation	1985 - 1999	288829
B	245m NW	Electricity Substation	1980 - 1999	268505
8	262m N	Electricity Substation	1989 - 1999	285902
I	275m E	Electricity Substation	1985 - 1994	265211
K	284m SW	Electricity Substation	1970	241639
I	287m E	Electricity Substation	1951	258859
K	288m SW	Electricity Substation	1985	241638
B	293m NW	Electricity Substation	1989 - 1999	272236
I	306m E	Electricity Substation	1991	286912
B	324m NW	Electricity Substation	1989 - 1999	264077
B	325m NW	Electricity Substation	1980 - 1987	279199
L	338m NE	Electricity Substation	1994	274039
L	339m NE	Electricity Substation	1985 - 1993	287873
B	428m NW	Electricity Substation	1985 - 1995	268891
S	441m N	Electricity Substation	1970 - 1989	287206
S	442m N	Electricity Substation	1999	279338
O	500m W	Electricity Substation	1985 - 1995	286527

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	7

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'.

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

ID	Location	Land use	Dates present	Group ID
P	399m E	Garages	1950	74121
P	424m E	Garage	1964 - 1994	83478
P	424m E	Garage	1973	81031
P	425m E	Garage	1985	79734
P	433m E	Garage	1991	80302
P	444m E	Garage	1969	76297
P	444m E	Garage	1950 - 1973	81668

This data is sourced from Ordnance Survey / Groundsure.

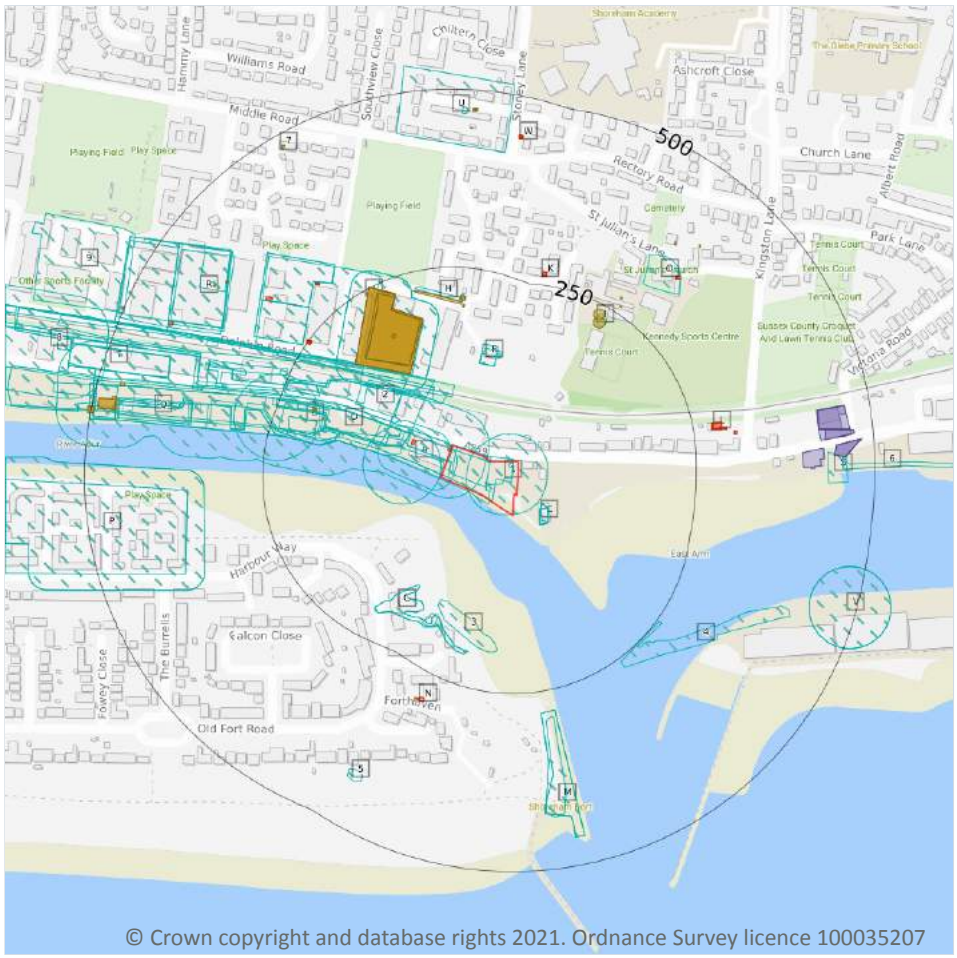
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



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Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

2.1 Historical industrial land uses

Records within 500m	92

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 21**

ID	Location	Land Use	Date	Group ID
1	**On site**	**Lifeboat House**	**1896**	**2153075**
A	**On site**	**Unspecified Wharf**	**1972**	**2266604**
A	**On site**	**Railway Sidings**	**1948**	**2173640**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Ship Building Yard**	**1873**	**2138108**
A	**On site**	**Sawing and Planing Mills**	**1912**	**2191010**
B	**On site**	**Sawing and Planing Mills**	**1948**	**2230077**
B	**On site**	**Railway Sidings**	**1873**	**2218794**
B	**On site**	**Steam Sawing and Planning Mills**	**1873**	**2141035**
B	1m W	Railway Sidings	1912	2244199
A	2m W	Unspecified Wharf	1948	2266518
C	37m E	Lifeboat Station	1968	2207927
C	37m E	Lifeboat Station	1972	2207927
C	37m E	Lifeboat Station	1982	2207927
C	38m E	Boat Station	1963	2167856
B	61m W	Railway Sidings	1963	2219712
B	62m W	Railway Sidings	1968	2219712
B	62m W	Railway Sidings	1972	2219712
B	65m W	Sawing and Planing Mills	1896	2247651
B	69m N	Railway Sidings	1873	2196215
B	71m NW	Railway Sidings	1948	2189983
B	71m NW	Railway Sidings	1909	2285199
D	75m W	Railway Buildings	1968	2214125
D	75m W	Railway Buildings	1972	2214125
B	77m NW	Railway Sidings	1896	2189828
2	90m NW	Malthouse	1896	2147799
E	92m NW	Unspecified Tank	1968	2171529
E	92m NW	Unspecified Tank	1972	2171529
E	114m NW	Unspecified Tank	1982	2246703
F	122m N	Unspecified Station	1968	2271043
F	122m N	Unspecified Station	1972	2271043
F	136m N	Unspecified Station	1982	2248111

ID	Location	Land Use	Date	Group ID
G	151m SW	Unspecified Ground Workings	1912	2193560
G	151m SW	Unspecified Ground Workings	1912	2193560
3	151m SW	Unspecified Pit	1896	2123745
B	153m W	Railway Sidings	1948	2189612
B	156m W	Railway Sidings	1909	2276323
B	156m W	Railway Sidings	1896	2276323
B	168m NW	Unspecified Works	1982	2212272
G	175m SW	Unspecified Heap	1896	2135798
B	185m W	Unspecified Wharf	1982	2157203
B	187m W	Railway Building	1968	2202189
B	187m W	Railway Building	1972	2202189
B	193m NW	Railway Station	1873	2152596
B	200m W	Railway Building	1968	2293036
B	200m W	Railway Building	1972	2293036
H	202m N	Unspecified Tanks	1948	2143630
I	222m NE	Unspecified Tank	1948	2153457
4	251m SE	Quay	1948	2139295
B	252m NW	Coke Ovens	1873	2256344
B	253m NW	Unspecified Depot	1968	2214702
B	253m NW	Unspecified Depot	1972	2214702
B	254m NW	Railway Building	1896	2148030
B	275m NW	Railway Building	1896	2148029
M	279m S	Railway Sidings	1909	2276688
M	279m S	Railway Sidings	1896	2276688
B	280m NW	Unspecified Works	1968	2178222
B	280m NW	Unspecified Works	1972	2178222
M	287m S	Railway Sidings	1912	2178304
O	306m NE	Grave Yard	1873	2145539

ID	Location	Land Use	Date	Group ID
B	307m W	Coke Ovens	1896	2256344
P	333m W	Unspecified Depot	1968	2256848
P	333m W	Unspecified Depot	1972	2256848
B	345m NW	Railway Buildings	1873	2163328
P	356m W	Unspecified Depot	1982	2193387
Q	359m W	Unspecified Wharf	1909	2293923
B	359m NW	Railway Building	1896	2148026
Q	359m W	Unspecified Wharf	1912	2244779
Q	359m W	Unspecified Wharf	1912	2244779
R	359m NW	Unspecified Works	1982	2186732
R	361m NW	Unspecified Factory	1948	2150904
R	362m NW	Nursery	1963	2176232
R	363m NW	Unspecified Works	1968	2265052
R	363m NW	Unspecified Commercial/Industrial	1972	2130660
B	382m NW	Railway Building	1873	2148027
R	385m NW	Nursery	1909	2241638
T	406m W	Unspecified Works	1968	2171516
T	406m W	Unspecified Works	1972	2171516
T	409m W	Unspecified Works	1963	2176837
5	417m SW	Unspecified Heap	1896	2135797
U	418m N	Nursery	1963	2161116
R	432m W	Nursery	1912	2269789
V	433m E	Unspecified Wharf	1972	2183998
V	433m E	Unspecified Wharf	1982	2183998
S	435m E	Quay	1873	2139296
6	456m E	Unspecified Wharf	1948	2202326
U	466m N	Unspecified Tank	1947	2199670
U	466m N	Unspecified Tank	1931	2199670

ID	Location	Land Use	Date	Group ID
T	467m W	Unspecified Works	1963	2244642
8	495m W	Brick Field	1873	2228795
T	495m W	Unspecified Works	1982	2171367
T	496m W	Railway Sidings	1948	2247424
9	497m W	Unspecified Commercial/Industrial	1972	2130658

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m **44**

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 21**

ID	Location	Land Use	Date	Group ID
E	117m NW	Unspecified Tank	1970	407275
E	117m NW	Unspecified Tank	1989	388199
E	117m NW	Unspecified Tank	1961	407275
E	117m NW	Sewage Tank	1951	397312
E	128m NW	Sewage Tank	1951	397312
E	128m NW	Unspecified Tank	1980	403797
E	128m NW	Unspecified Tank	1985	403797
E	128m NW	Unspecified Tank	1987	403797
E	172m NW	Unspecified Tank	1999	411372
H	195m N	Unspecified Tank	1951	398159
H	195m N	Unspecified Tank	1951	397102
B	198m W	Unspecified Tank	1989	384577
B	198m W	Unspecified Tank	1999	384577
H	199m N	Unspecified Tank	1930	360176
B	199m W	Unspecified Tank	1985	384577

ID	Location	Land Use	Date	Group ID
B	199m W	Unspecified Tank	1987	384577
H	204m N	Unspecified Tank	1951	392992
H	204m N	Unspecified Tank	1930	392441
H	204m N	Unspecified Tank	1951	392992
I	218m NE	Unspecified Tank	1898	392618
I	229m NE	Unspecified Tank	1912	392618
I	259m NE	Unspecified Tank	1930	360175
I	270m NE	Unspecified Tank	1912	360172
O	375m NE	Tank or Trough	1874	379368
R	390m NW	Unspecified Tank	1995	407329
R	390m NW	Unspecified Tank	1965	407505
R	390m NW	Unspecified Tank	1985	410293
O	393m NE	Tank or Trough	1874	379369
R	401m NW	Unspecified Tank	1965	407551
R	402m NW	Unspecified Tank	1995	389543
R	402m NW	Unspecified Tank	1985	408995
U	446m N	Unspecified Tank	1951	360174
T	462m W	Unspecified Tank	1874	360183
T	465m W	Tanks	1951	385645
T	467m W	Unspecified Tank	1898	360181
T	468m W	Tanks	1951	385645
U	470m N	Unspecified Tank	1912	403495
U	470m N	Unspecified Tank	1937	403495
U	470m N	Unspecified Tank	1933	403495
U	471m N	Unspecified Tank	1951	402914
U	471m N	Unspecified Tank	1951	402914
7	479m NW	Unspecified Tank	1989	360177
T	495m W	Tanks	1951	411108

ID	Location	Land Use	Date	Group ID
T	495m W	Tanks	1951	411108

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**45**

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 21**

ID	Location	Land Use	Date	Group ID
A	1m W	Electricity Substation	1970	241636
A	51m W	Electricity Substation	1985	241637
B	201m W	Electricity Substation	1989	276779
B	201m W	Electricity Substation	1999	276779
B	201m W	Electricity Substation	1985	276779
B	201m W	Electricity Substation	1987	276779
J	237m NW	Electricity Substation	1999	288829
J	238m NW	Electricity Substation	1989	288829
J	239m NW	Electricity Substation	1985	288829
J	239m NW	Electricity Substation	1987	288829
B	245m NW	Electricity Substation	1980	268505
B	245m NW	Electricity Substation	1985	268505
B	245m NW	Electricity Substation	1987	268505
B	245m NW	Electricity Substation	1989	268505
B	246m NW	Electricity Substation	1999	268505
K	262m N	Electricity Substation	1999	285902
K	263m N	Electricity Substation	1989	285902
L	275m E	Electricity Substation	1994	265211
L	276m E	Electricity Substation	1985	265211

ID	Location	Land Use	Date	Group ID
L	276m E	Electricity Substation	1993	265211
N	284m SW	Electricity Substation	1970	241639
L	287m E	Electricity Substation	1951	258859
L	287m E	Electricity Substation	1951	258859
N	288m SW	Electricity Substation	1985	241638
B	293m NW	Electricity Substation	1999	272236
B	293m NW	Electricity Substation	1989	272236
L	306m E	Electricity Substation	1991	286912
L	306m E	Electricity Substation	1991	286912
B	324m NW	Electricity Substation	1999	264077
B	324m NW	Electricity Substation	1989	264077
B	325m NW	Electricity Substation	1980	279199
B	325m NW	Electricity Substation	1985	279199
B	325m NW	Electricity Substation	1987	279199
O	338m NE	Electricity Substation	1994	274039
O	339m NE	Electricity Substation	1985	287873
O	339m NE	Electricity Substation	1993	287873
B	428m NW	Electricity Substation	1985	268891
B	428m NW	Electricity Substation	1995	268891
W	441m N	Electricity Substation	1970	287206
W	441m N	Electricity Substation	1989	287206
W	442m N	Electricity Substation	1980	287206
W	442m N	Electricity Substation	1985	287206
W	442m N	Electricity Substation	1987	287206
W	442m N	Electricity Substation	1999	279338
R	500m W	Electricity Substation	1985	286527

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	12

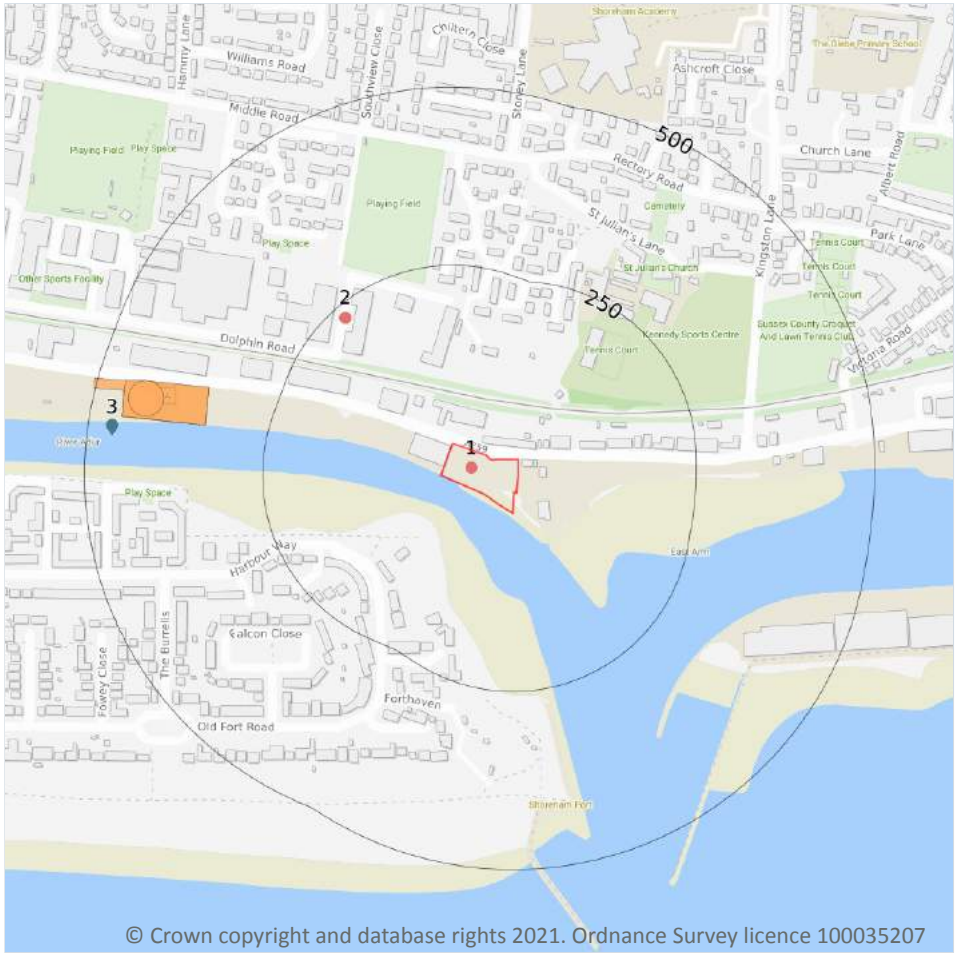
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 21**

ID	Location	Land Use	Date	Group ID
S	399m E	Garages	1950	74121
S	424m E	Garage	1964	83478
S	424m E	Garage	1994	83478
S	424m E	Garage	1973	81031
S	424m E	Garage	1973	81031
S	425m E	Garage	1985	79734
S	433m E	Garage	1991	80302
S	433m E	Garage	1991	80302
S	444m E	Garage	1960	81668
S	444m E	Garage	1973	81668
S	444m E	Garage	1950	81668
S	444m E	Garage	1969	76297

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



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Site Outline

Search buffers in metres (m)

Historical waste sites

Licensed waste sites

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	3

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

Features are displayed on the Waste and landfill map on **page 30**

ID	Location	Address	Further Details	Date
A	337m W	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1995
A	338m W	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1985

ID	Location	Address	Further Details	Date
A	402m W	Site Address: Kingston Wharf,Brighton Road, (Pioneer Concrete), SHOREHAM-BY-SEA, West Sussex, BN43 6RN	Type of Site: Recycle Centre Planning application reference: ADC/0621/07 Description: Scheme comprises recycle centre (skip waste) with construction of three ancillary buildings, portacabin units to provide office accommodation and car parking. Construction - black top surfacing site works. An application (ref: ADC/0621/07) for detailed lanning permission was submitted to Adur D.C. Data source: Historic Planning Application Data Type: Point	-

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

3.6 Licensed waste sites

Records within 500m	**1**

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

Features are displayed on the Waste and landfill map on **page 30**

ID	Location	Details		
3	466m W	Site Name: E M R Site Address: Kingston Wharf, Brighton Road, Shoreham By Sea, West Sussex, BN43 6RN Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: COO002 EPR reference: EA/EPR/NP3094HA/V004 Operator: Cooper Barnes Metals Ltd Waste Management licence No: 19694 Annual Tonnage: 260000	Issue Date: 30/09/1995 Effective Date: - Modified:: 11/12/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

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

3.7 Waste exemptions

Records within 500m	**2**

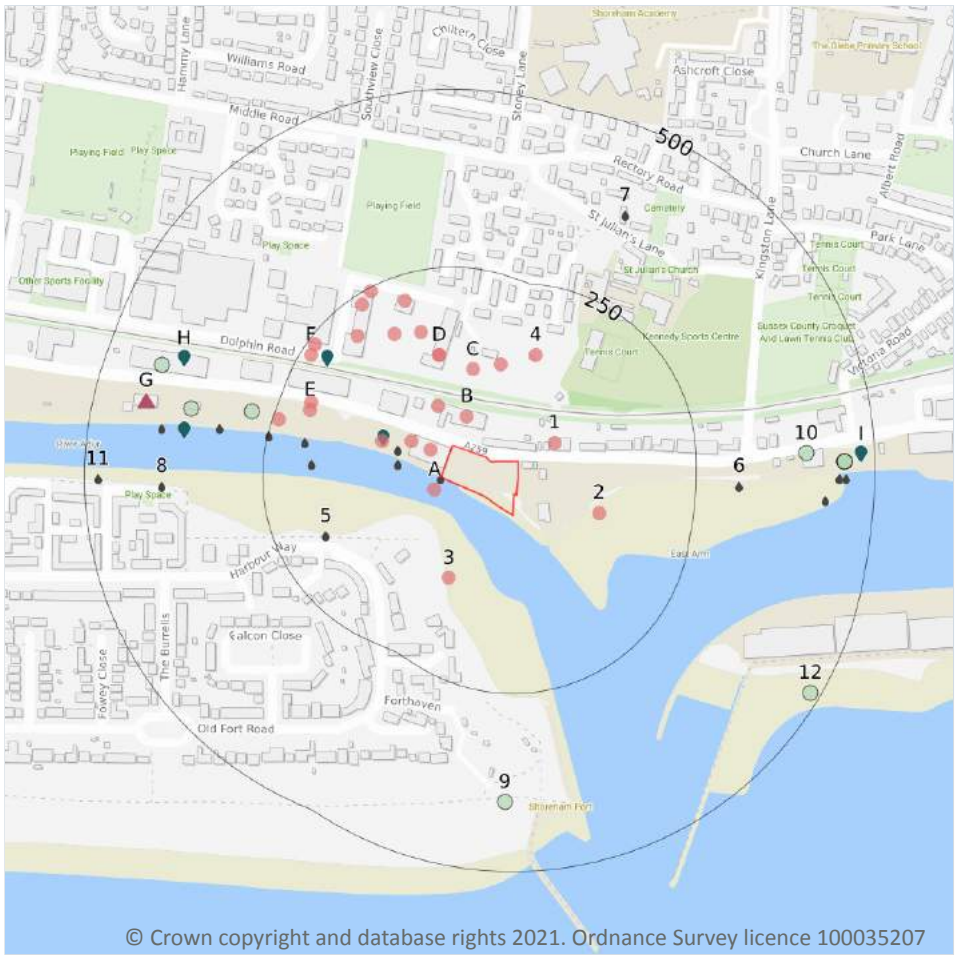
Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 30**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	**On site**	**J Davies Building Limited, Lennards Wharf, Brighton Road, Shoreham, BN43 6RN**	**WEX257302**	**Using waste exemption**	**Not on a farm**	**Use of waste in construction**
2	232m NW	5 Dolphin Road SHOREHAM-BY-SEA West Sussex BN43 6PB	EPR/WF0703BB/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place

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

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	25

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Company	Address	Activity	Category
A	19m SW	Shoreham Harbour	West Sussex, BN43	Moorings and Unloading Facilities	Water
A	27m W	Warehouse	West Sussex, BN43	Container and Storage	Transport, Storage and Delivery
B	45m N	Northgate Vehicle Hire	106-110, Brighton Road, Shoreham-by-Sea, West Sussex, BN43 6RH	Vehicle Hire and Rental	Hire Services

ID	Location	Company	Address	Activity	Category
A	57m W	Electricity Sub Station	West Sussex, BN43	Electrical Features	Infrastructure and Facilities
1	58m NE	Malthouse & Summer	68, Brighton Road, Shoreham-by-Sea, West Sussex, BN43 6RG	Curtains and Blinds	Consumer Products
B	59m N	Light House Car Centre Ltd	116-122, Brighton Road, Shoreham-by-Sea, West Sussex, BN43 6RH	Secondhand Vehicles	Motoring
A	94m W	Kingston Wharf	West Sussex, BN43	Moorings and Unloading Facilities	Water
C	110m N	Mast (Telecommunication)	West Sussex, BN43	Telecommunications Features	Infrastructure and Facilities
2	118m E	Slipway	West Sussex, BN43	Moorings and Unloading Facilities	Water
3	123m SW	Slipway	West Sussex, BN43	Moorings and Unloading Facilities	Water
D	128m N	Aliport Commercial	Unit 7 G3 Business Park, Dolphin Road, Shoreham-by-Sea, West Sussex, BN43 6AN	Car Ports and Steel Buildings	Industrial Products
D	128m N	Yorkshire Canopies Ltd	Unit 7 G3 Business Park, Dolphin Road, Shoreham-by-Sea, West Sussex, BN43 6AN	Car Ports and Steel Buildings	Industrial Products
C	130m N	Transmitter Station	West Sussex, BN43	Telecommunications Features	Infrastructure and Facilities
4	151m N	Mast	West Sussex, BN43	Telecommunications Features	Infrastructure and Facilities
D	165m N	G3 Business Park	West Sussex, BN43	Business Parks and Industrial Estates	Industrial Features
D	176m NW	Tank	West Sussex, BN43	Tanks (Generic)	Industrial Features
D	203m NW	Higgidy	60, Dolphin Road, Shoreham-by-Sea, West Sussex, BN43 6PB	Catering and Non Specific Food Products	Foodstuffs
E	205m W	Tank	West Sussex, BN43	Tanks (Generic)	Industrial Features
E	207m W	Electricity Sub Station	West Sussex, BN43	Electrical Features	Infrastructure and Facilities
D	214m N	M T M Units Ltd	Unit 12 G3 Business Park, Dolphin Road, Shoreham By Sea, West Sussex, BN43 6AN	Rubber, Silicones and Plastics	Industrial Products
D	235m NW	Works	West Sussex, BN43	Unspecified Works Or Factories	Industrial Features

ID	Location	Company	Address	Activity	Category
F	236m NW	Mast (Telecommunication)	West Sussex, BN43	Telecommunications Features	Infrastructure and Facilities
F	240m NW	Electricity Sub Station	West Sussex, BN43	Electrical Features	Infrastructure and Facilities
E	241m W	Kingston Railway Wharf	West Sussex, BN43	Moorings and Unloading Facilities	Water
D	245m NW	Electricity Sub Station	West Sussex, BN43	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	1

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.

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Details	
G	427m W	Application reference number: No details. Application status: Withdrawn Application date: 10/11/1992 Address: GB Barnes Ltd., Lennards Wharf, Brighton Road, Shoreham-by-sea, West Sussex, BN43 6RN	Details: Wholesale Gas Cylinder Storage Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

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	5

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

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Address	Details	
A	95m W	Pioneer Aggregates, Kingston Railway Wharf, Brighton Road, Shoreham, BN43 6RN	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
F	215m NW	Pioneer Concrete Ltd, Kingston Railway Wharf, Brighton Rd, BN43 6RE	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
G	366m W	Edwards High Vacuum, International Malthouse Trad Est, Brighton Rd,	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
H	395m W	Boc Edwards, Dolphin Rd	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
I	481m E	Dudman Waste & Environmental Ltd, Albion Wharf, Southwick, BN15 9JL	Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	19

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 34**

ID	Location	Address	Details	
A	2m SW	KINGSTON WHARF, BRIGHTON ROAD, SOUTHWICK, EAST SUSSEX	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: S01753 Permit Version: 1 Receiving Water: CONTROLLED SEA	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 13/09/1968 Effective Date: 13/09/1968 Revocation Date: 31/03/1997
A	64m W	DOLPHIN TANK EMERGENCY OVERFLOW, DOLPHIN ROAD, SHOREHAM, EAST SUSSEX	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: D00027 Permit Version: 1 Receiving Water: SALINE ESTUARY	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 01/04/1991 Effective Date: 01/04/1991 Revocation Date: 28/04/1994
A	64m W	DOLPHIN TANK EMERGENCY OVERFLOW, DOLPHIN ROAD, SHOREHAM, EAST SUSSEX	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: D00027 Permit Version: 2 Receiving Water: SALINE ESTUARY	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 28/04/1994 Effective Date: 28/04/1994 Revocation Date: 31/12/1995
A	70m W	DOLPHIN ROAD TANKS, SHOREHAM, DOLPHIN ROAD TANKS, DOLPHIN ROAD, SHOREHAM-BY-SEA, WEST SUSSEX, BN43 6BP	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: A01002 Permit Version: 1 Receiving Water: SHOREHAM HARBOUR (WEST ARM)	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 10/03/2003 Effective Date: 10/03/2003 Revocation Date: -

ID	Location	Address	Details	
5	181m SW	DEVELOPMENT AT HARBOUR WAY, SOLDIERS POINT	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S01923 Permit Version: 1 Receiving Water: SALINE ESTUARY	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 03/06/1970 Effective Date: 03/06/1970 Revocation Date: -
E	182m W	CORRALLS WHARF	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N02078 Permit Version: 1 Receiving Water: CONTROLLED SEA	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 05/01/1976 Effective Date: 05/01/1976 Revocation Date: 01/07/1991
E	197m W	KINGSTON RAILWAY WHARF, BRIGHTON ROAD, SHOREHAM-BY-SEA, WEST SUSSEX, BN43 6RN	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S02099 Permit Version: 1 Receiving Water: SALINE ESTUARY	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 31/07/1972 Effective Date: 31/07/1972 Revocation Date: 31/03/1997
E	248m W	KINGSTON RAILWAY WHARF, BRIGHTON ROAD, SHOREHAM-BY-SEA, WEST SUSSEX, BN43 6RN	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S02099 Permit Version: 1 Receiving Water: SALINE ESTUARY	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 31/07/1972 Effective Date: 31/07/1972 Revocation Date: 31/03/1997
6	310m E	SHOREHAM BY-PASS, SHOREHAM-BY-SEA, WEST SUSSEX	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S01737 Permit Version: 1 Receiving Water: CONTROLLED SEA	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 15/10/1968 Effective Date: 15/10/1968 Revocation Date: 31/03/1997
G	318m W	KINGSTON RAILWAY WHARF, BRIGHTON ROAD, SHOREHAM-BY-SEA, WEST SUSSEX, BN43 6RN	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S02099 Permit Version: 1 Receiving Water: SALINE ESTUARY	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 31/07/1972 Effective Date: 31/07/1972 Revocation Date: 31/03/1997
7	376m NE	KINGS MANOR SCHOOL, SHOREHAM, WEST SUSSEX	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P03471 Permit Version: 1 Receiving Water: UNDERGROUND WATER	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 24/05/1991 Effective Date: 24/05/1991 Revocation Date: 31/03/1995
8	391m W	SUSSEX WHARF, SHOREHAM-BY-SEA, WEST SUSSEX	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S01043 Permit Version: 1 Receiving Water: CONTROLLED SEA	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 31/08/1964 Effective Date: 31/08/1964 Revocation Date: 01/07/1991

ID	Location	Address	Details	
G	397m W	KINGSTON RAILWAY WHARF, BRIGHTON ROAD, SHOREHAM-BY-SEA, WEST SUSSEX, BN43 6RN	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S02099 Permit Version: 1 Receiving Water: SALINE ESTUARY	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 31/07/1972 Effective Date: 31/07/1972 Revocation Date: 31/03/1997
I	431m E	SHOREHAM HARBOUR, EASTERN ARM	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01562 Permit Version: 1 Receiving Water: CONTROLLED SEA	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 05/07/1979 Effective Date: 05/07/1979 Revocation Date: -
I	450m E	THE GREEN SOUTHWICK CSO, CHURCH LANE, THE GREEN, SOUTHWICK, WEST SUSSEX, BN42 4FY	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: A01005 Permit Version: 1 Receiving Water: ADUR ESTUARY	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 21/02/2002 Effective Date: 21/02/2002 Revocation Date: 22/03/2017
I	450m E	THE GREEN SOUTHWICK CSO, CHURCH LANE, THE GREEN, SOUTHWICK, WEST SUSSEX, BN42 4FY	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: A01005 Permit Version: 2 Receiving Water: THE ADUR ESTUARY	Status: VARIED UNDER EPR 2010 Issue date: 23/03/2017 Effective Date: 23/03/2017 Revocation Date: 30/03/2017
I	450m E	THE GREEN SOUTHWICK CSO, CHURCH LANE, THE GREEN, SOUTHWICK, WEST SUSSEX, BN42 4FY	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: A01005 Permit Version: 3 Receiving Water: THE ADUR ESTUARY	Status: VARIED UNDER EPR 2010 Issue date: 23/03/2017 Effective Date: 31/03/2017 Revocation Date: -
I	460m E	SHOREHAM HARBOUR, EASTERN ARM	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01562 Permit Version: 1 Receiving Water: CONTROLLED SEA	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 05/07/1979 Effective Date: 05/07/1979 Revocation Date: -
11	481m W	SUSSEX WHARF, SHOREHAM-BY-SEA, WEST SUSSEX	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: S01043 Permit Version: 1 Receiving Water: CONTROLLED SEA	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 31/08/1964 Effective Date: 31/08/1964 Revocation Date: 01/07/1991

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	10

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

Features are displayed on the Current industrial land use map on **page 34**

ID	Location	Details	
E	281m W	Incident Date: 20/02/2002 Incident Identification: 59516 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
G	362m W	Incident Date: 14/08/2002 Incident Identification: 100108 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
9	402m S	Incident Date: 26/05/2002 Incident Identification: 81237 Pollutant: Specific Waste Materials Pollutant Description: Containers	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
10	404m E	Incident Date: 08/03/2002 Incident Identification: 62850 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
H	421m W	Incident Date: 18/07/2002 Incident Identification: 92666 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Fumes	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
I	458m E	Incident Date: 12/02/2002 Incident Identification: 57820 Pollutant: Specific Waste Materials:Specific Waste Materials:Specific Waste Materials Pollutant Description: Tyres:Vehicles and Vehicle Parts:Other Specific Waste Material	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
I	458m E	Incident Date: 12/02/2002 Incident Identification: 57820 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
I	458m E	Incident Date: 12/02/2002 Incident Identification: 57820 Pollutant: Specific Waste Materials Pollutant Description: Vehicles and Vehicle Parts	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
I	458m E	Incident Date: 12/02/2002 Incident Identification: 57820 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
12	486m SE	Incident Date: 16/06/2003 Incident Identification: 166132 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

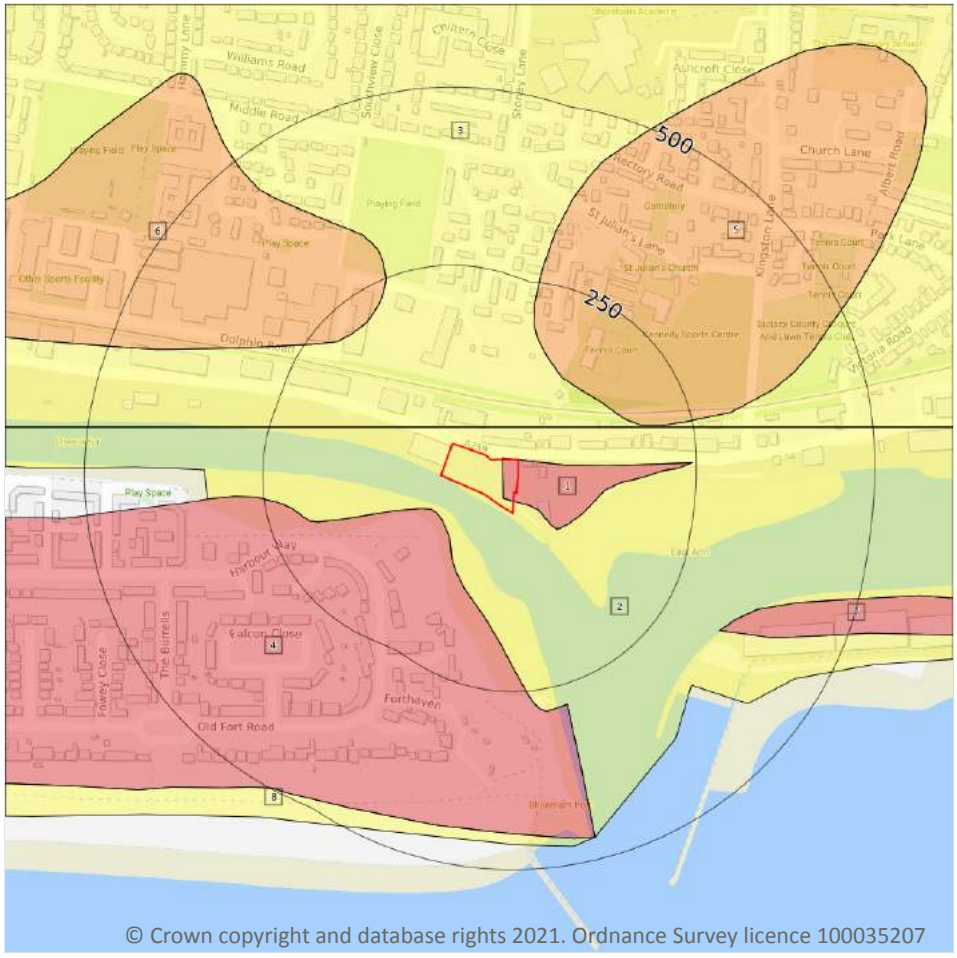
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m **8**

Aquifer status of groundwater held within superficial geology.

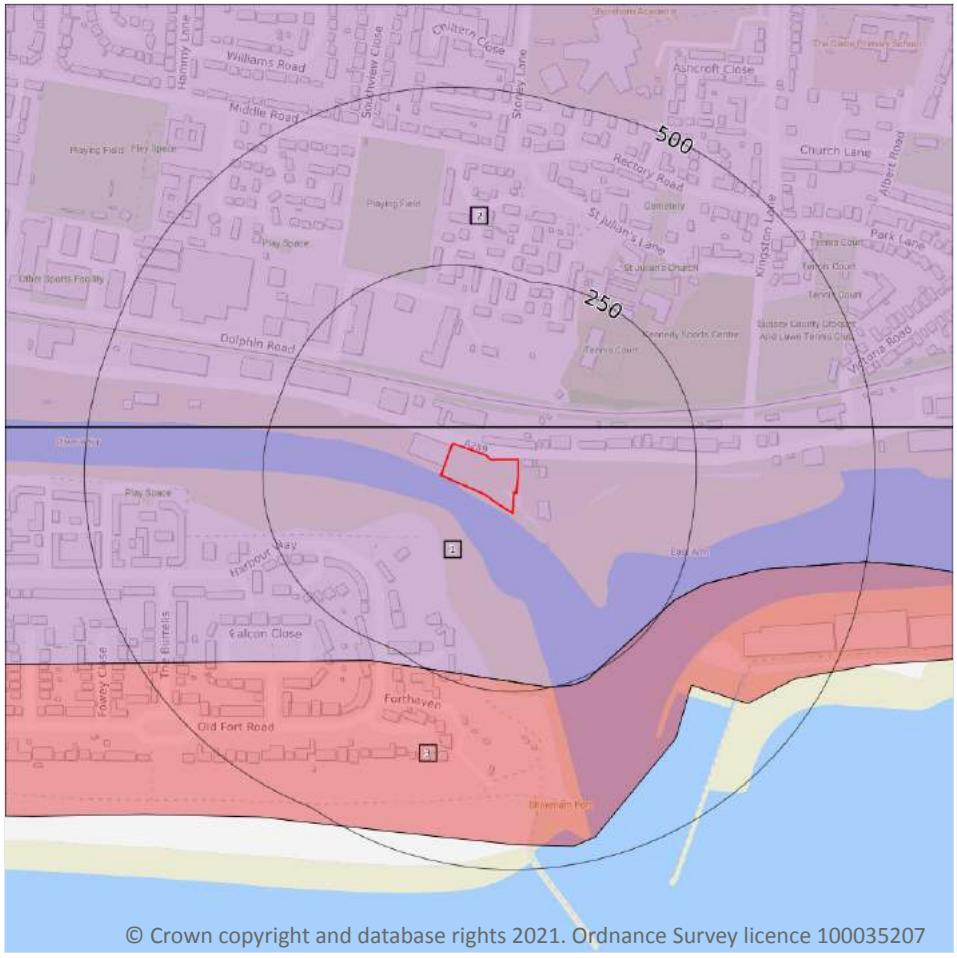
Features are displayed on the Hydrogeology map on **page 45**

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	**On site**	**Secondary Undifferentiated**	**Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type**

ID	Location	Designation	Description
3	23m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	49m SW	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
5	130m NE	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers
6	208m NW	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers
7	334m SE	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
8	447m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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

Bedrock aquifer



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Site Outline

Search buffers in metres (m)

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

5.2 Bedrock aquifer

Records within 500m	3

Aquifer status of groundwater held within bedrock geology.

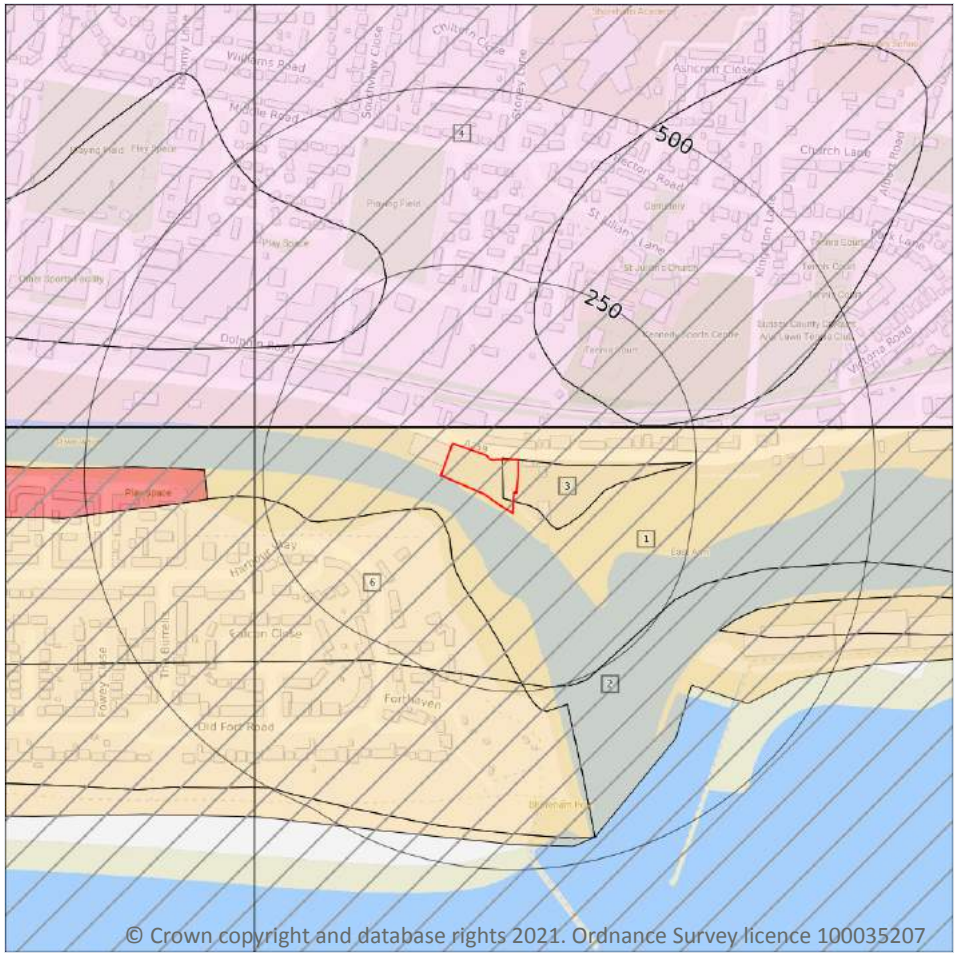
Features are displayed on the Bedrock aquifer map on **page 47**

ID	Location	Designation	Description
1	**On site**	**Principal**	**Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers**
2	23m N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

ID	Location	Designation	Description
3	234m 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

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	4

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 49**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: <90% Recharge potential: High**	**Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures**
3	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: <90% Recharge potential: High**	**Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures**
4	23m N	Summary Classification: Secondary superficial aquifer - Medium Vulnerability Combined classification: Productive 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: Low Aquifer type: Principal Flow mechanism: Well connected fractures
6	48m SW	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: 300-550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site	**1**

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	**Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.**	**1.0%**

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

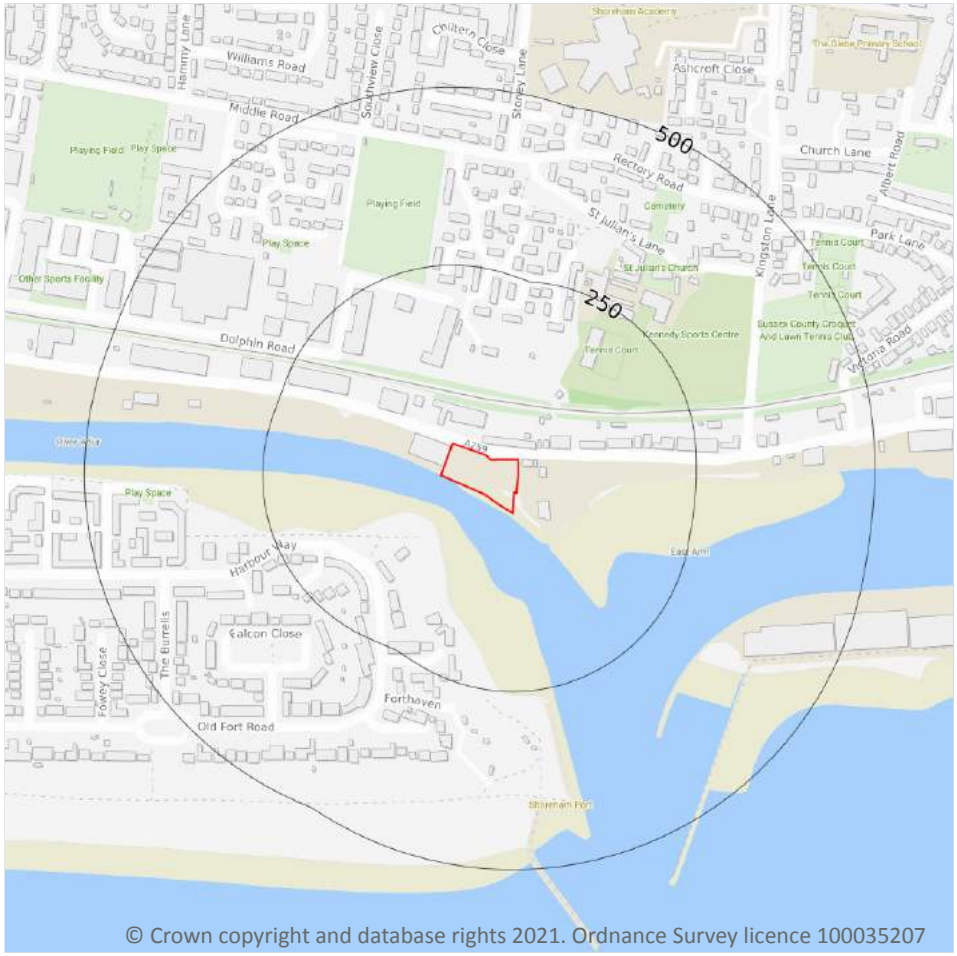
5.5 Groundwater vulnerability- local information

Records on site	0

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

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

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

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

5.6 Groundwater abstractions

Records within 2000m	3

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 52**

ID	Location	Details	
-	900m W	Status: Historical Licence No: SO/041/0022/015 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Southern Region Groundwater Point: UNDERGROUND STRATA AT FREE WHARF SHOREHAM-BY-SEA Data Type: Poly4 Name: Wates Construction Limited Easting: 522110 Northing: 105129	Annual Volume (m^3): 3,153,600 Max Daily Volume (m^3): 8,640 Original Application No: - Original Start Date: 21/02/2020 Expiry Date: 31/03/2021 Issue No: 1 Version Start Date: 21/02/2020 Version End Date: -
-	900m W	Status: Active Licence No: SO/041/0022/015 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Southern Region Groundwater Point: UNDERGROUND STRATA AT FREE WHARF SHOREHAM-BY-SEA Data Type: Poly4 Name: Wates Construction Limited Easting: 522110 Northing: 105129	Annual Volume (m^3): 3,153,600 Max Daily Volume (m^3): 8,640 Original Application No: - Original Start Date: 21/02/2020 Expiry Date: 31/03/2021 Issue No: 1 Version Start Date: 21/02/2020 Version End Date: -
-	1372m NE	Status: Historical Licence No: 10/41/310005 Details: Process Water Direct Source: Southern Region Groundwater Point: SOUTHWICK HILL FARM Data Type: Point Name: S D Holdings Ltd Easting: 524260 Northing: 106000	Annual Volume (m^3): 49779 Max Daily Volume (m^3): 136.4 Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 18/09/1993 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	**0**

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

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

5.8 Potable abstractions

Records within 2000m	0

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

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

5.9 Source Protection Zones

Records within 500m	0

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

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

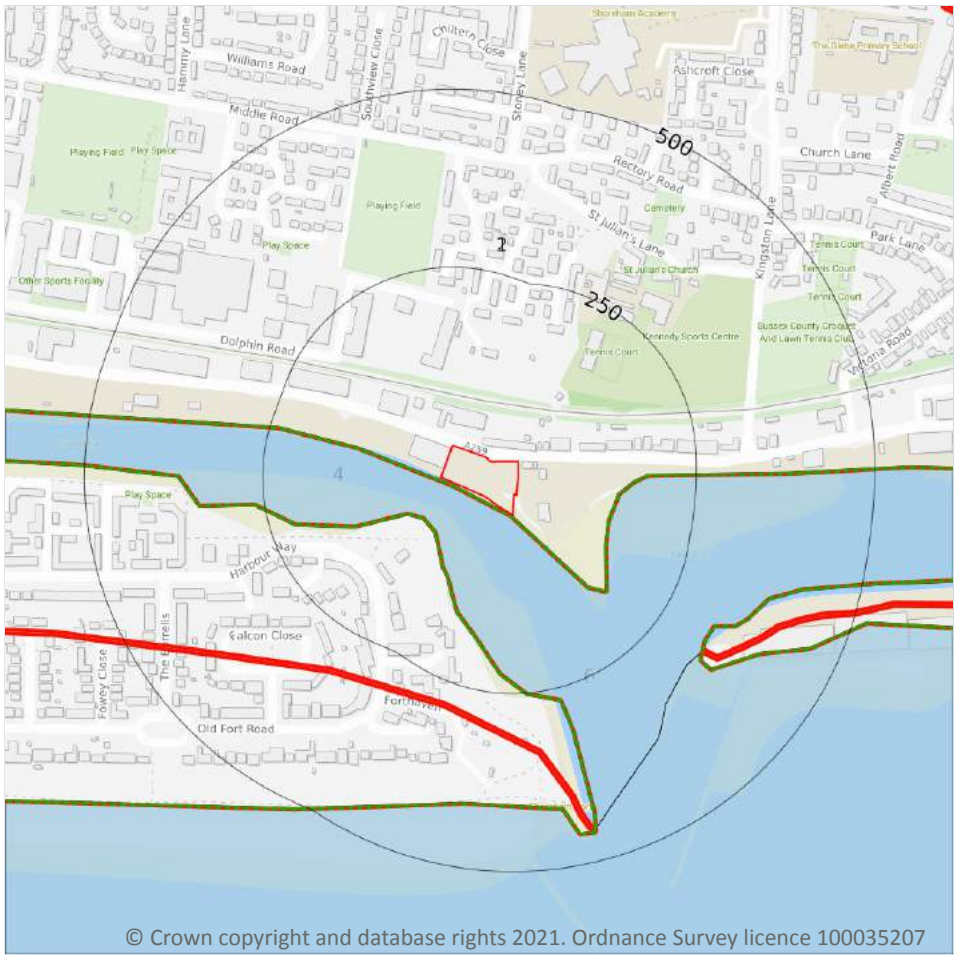
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

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

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

6 Hydrology



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6.1 Water Network (OS MasterMap)

Records within 250m	**2**

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 55**

ID	Location	Type of water feature	Ground level	Permanence	Name
4	22m SW	Tidal river or stream.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Adur

ID	Location	Type of water feature	Ground level	Permanence	Name
6	209m SE	Tidal river or stream.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Adur

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	**0**

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

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	**1**

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

Features are displayed on the Hydrology map on **page 55**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**Coastal Catchment**	**Not part of a river WB catchment**	**196**	**Upper Adur**	**Adur and Ouse**

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

6.4 WFD Surface water bodies

Records identified	**1**

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

Features are displayed on the Hydrology map on **page 55**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
3	0m SW	Transitional	Adur	GB540704116000	Moderate	Fail	Moderate	2016

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

6.5 WFD Groundwater bodies

Records on site	**1**

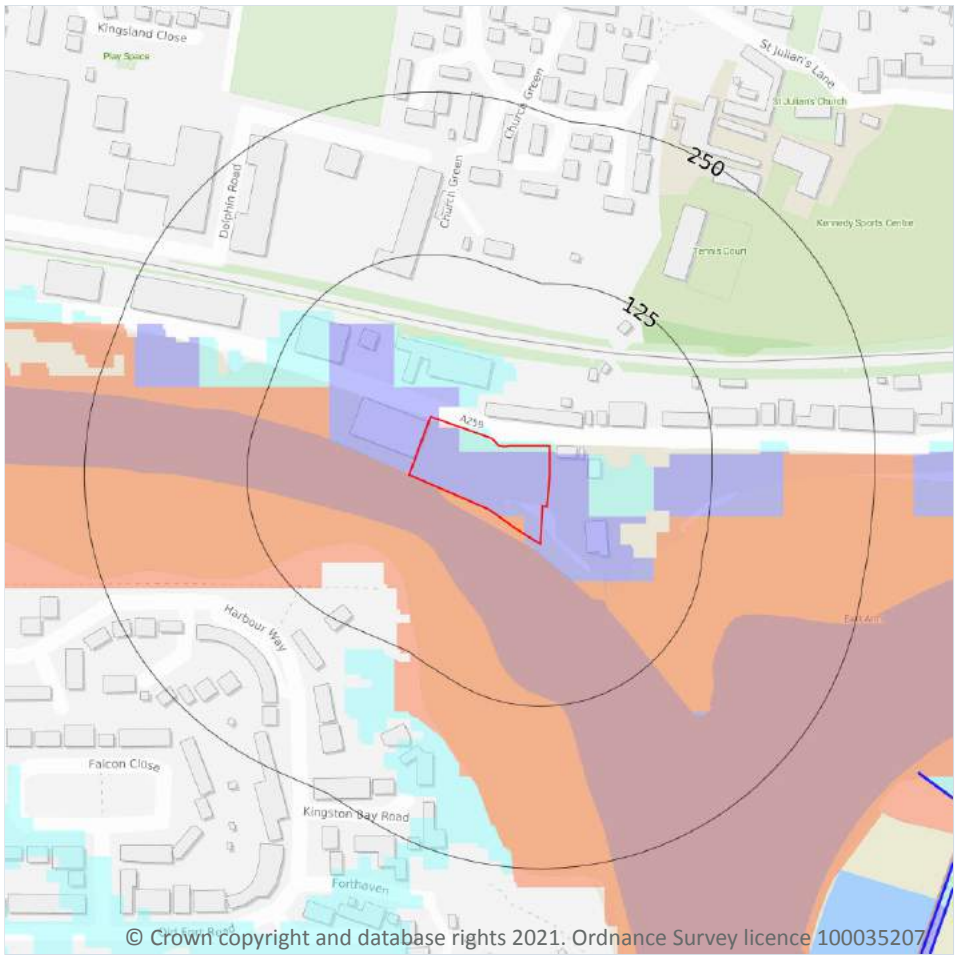
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 55**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	**On site**	**Brighton Chalk Block**	**GB40701G502500**	**Poor**	**Poor**	**Poor**	**2015**

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

7 River and coastal flooding



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	5

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).

Features are displayed on the River and coastal flooding map on **page 58**

Distance	RoFRaS flood risk
On site	**High**
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

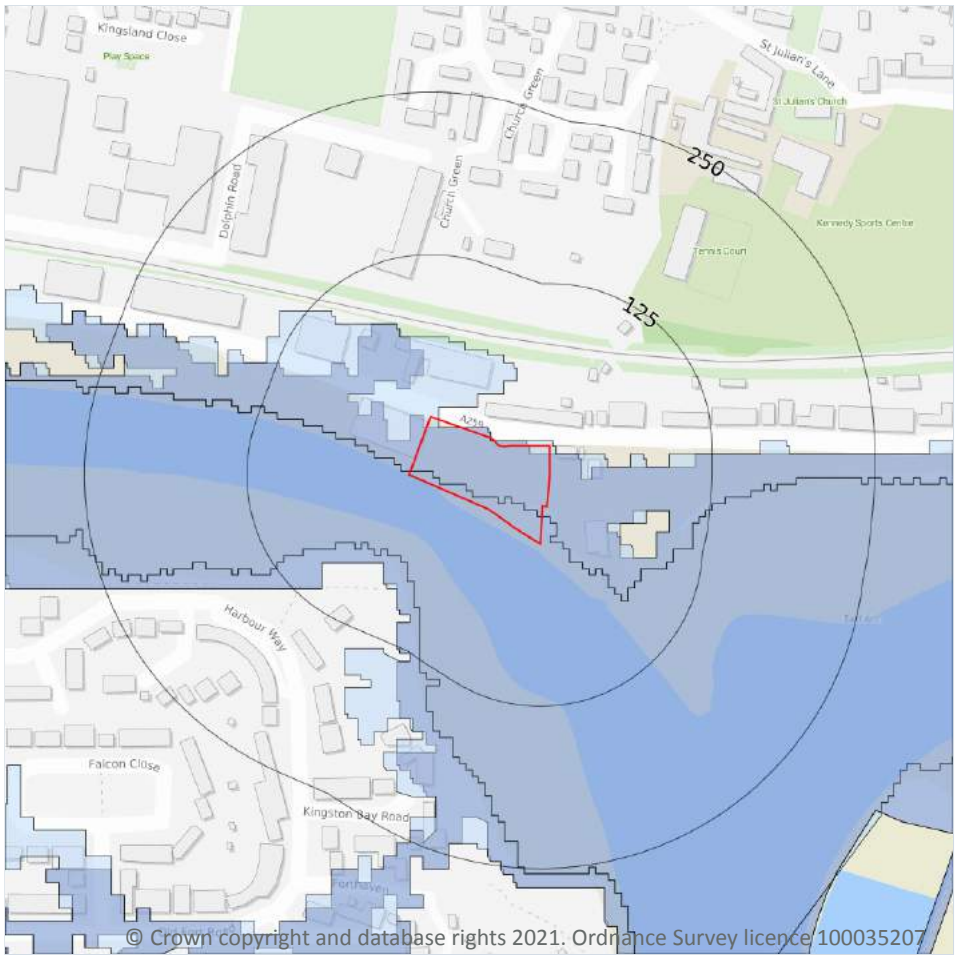
7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

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

Features are displayed on the River and coastal flooding map on **page 58**

Location	Type
On site	**Zone 2 - (Fluvial /Tidal Models)**

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

7.7 Flood Zone 3

Records within 50m	1

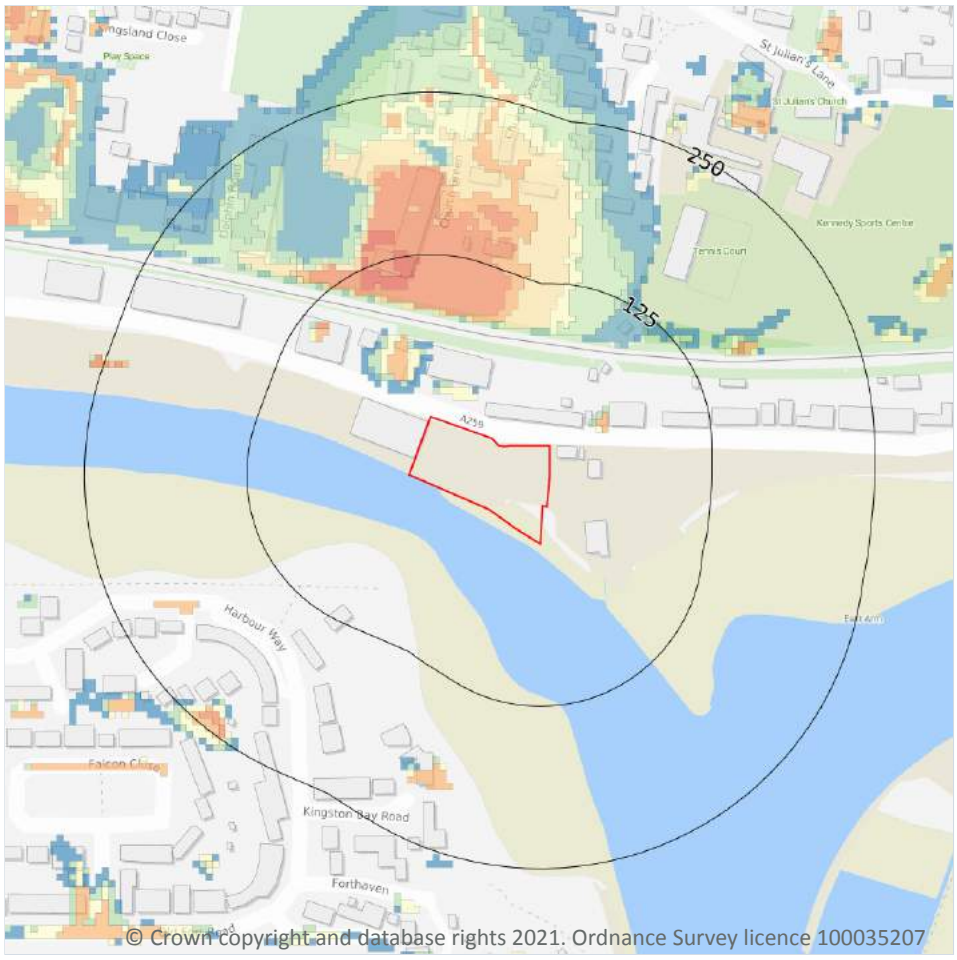
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 58**

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

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

8 Surface water flooding



Site Outline
Search buffers in metres (m)

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

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

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

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

8.1 Surface water flooding

Highest risk on site	**Negligible**
Highest risk within 50m	**1 in 30 year, 0.1m - 0.3m**

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

Features are displayed on the Surface water flooding map on **page 62**

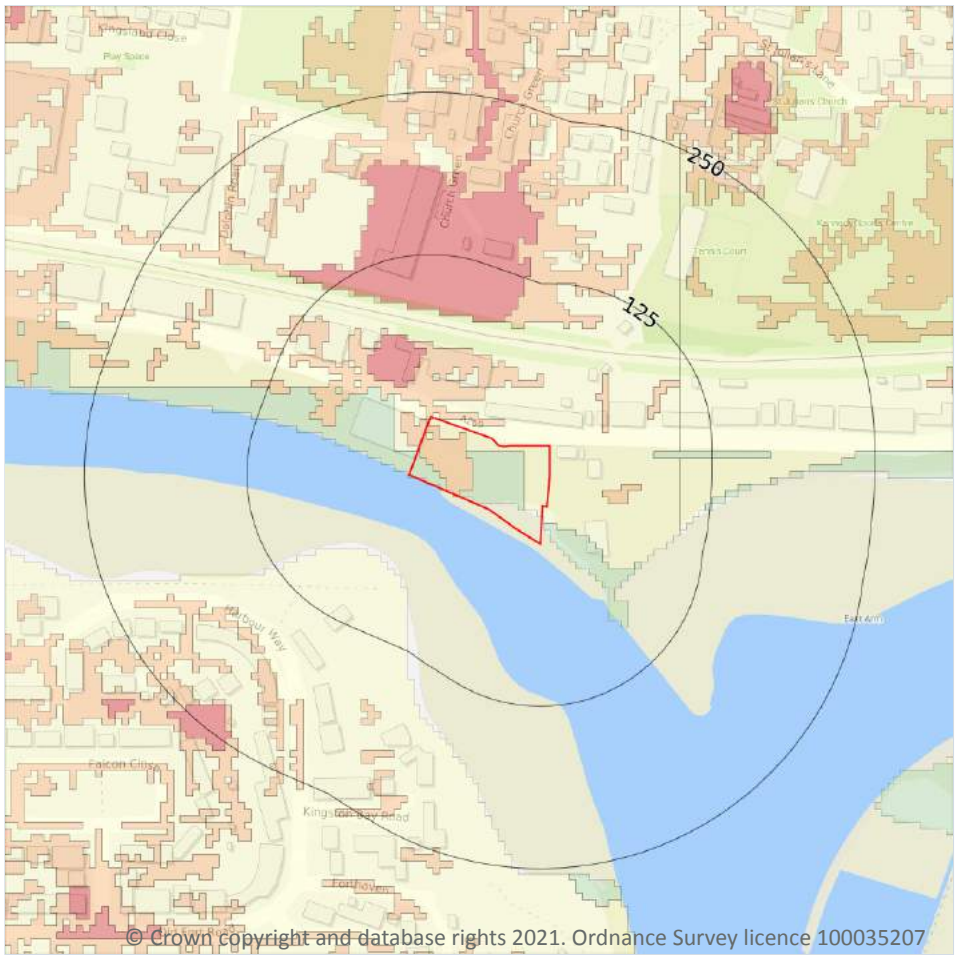
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

Highest risk on site	**Moderate-High**
Highest risk within 50m	**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 64**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 65**

ID	Location	Name	Data source
-	1629m W	Adur Estuary	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 65**

ID	Location	Name	Data source
2	366m S	Shoreham Beach	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	0

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

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

10.8 Biosphere Reserves

Records within 2000m	1

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.

Features are displayed on the Environmental designations map on **page 65**

ID	Location	Name	Status
1	**On site**	**Brighton and Lewes Downs**	**Declared**

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	4

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

Location	Name	Type	NVZ ID	Status
On site	**Sussex Chalk**	**Groundwater**	**G56**	**Changed**
722m E	Sussex Chalk	Groundwater	G56	Changed
1006m NW	Sussex Chalk	Groundwater	G56	Changed
1256m NE	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 70**

ID	Location	Type of developments requiring consultation
1	On site	**Infrastructure - Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines Minerals, Oil and Gas - Planning applications for quarries: new proposals or extensions, outside or extending outside existing settlements/urban areas affecting greenspace, farmland or semi natural habitats. Oil & gas exploration/extraction 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 50 or more houses outside existing settlements/urban areas. Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.**
2	On site	**Infrastructure - Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines Minerals, Oil and Gas - Planning applications for quarries: new proposals or extensions, outside or extending outside existing settlements/urban areas affecting greenspace, farmland or semi natural habitats. Oil & gas exploration/extraction 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 50 or more houses outside existing settlements/urban areas. Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**4**

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

Features are displayed on the SSSI Impact Zones and Units map on **page 70**

ID:	-
Location:	1629m W
SSSI name:	Adur Estuary
Unit name:	Adur Mudflats
Broad habitat:	Littoral Sediment
Condition:	Favourable
Reportable features:	

Feature name	Feature condition	Date of assessment
Aggregations of non-breeding birds - Ringed plover, Charadrius hiaticula	Not Recorded	01/01/1900
Littoral sediment	Not Recorded	01/01/1900

ID: -
Location: 1636m W
SSSI name: Adur Estuary
Unit name: 3
Broad habitat: Littoral Sediment
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of non-breeding birds - Ringed plover, Charadrius hiaticula	Not Recorded	01/01/1900
Littoral sediment	Not Recorded	01/01/1900

ID: -
Location: 1648m W
SSSI name: Adur Estuary
Unit name: Adur Mudflats
Broad habitat: Littoral Sediment
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of non-breeding birds - Ringed plover, Charadrius hiaticula	Not Recorded	01/01/1900
Littoral sediment	Not Recorded	01/01/1900

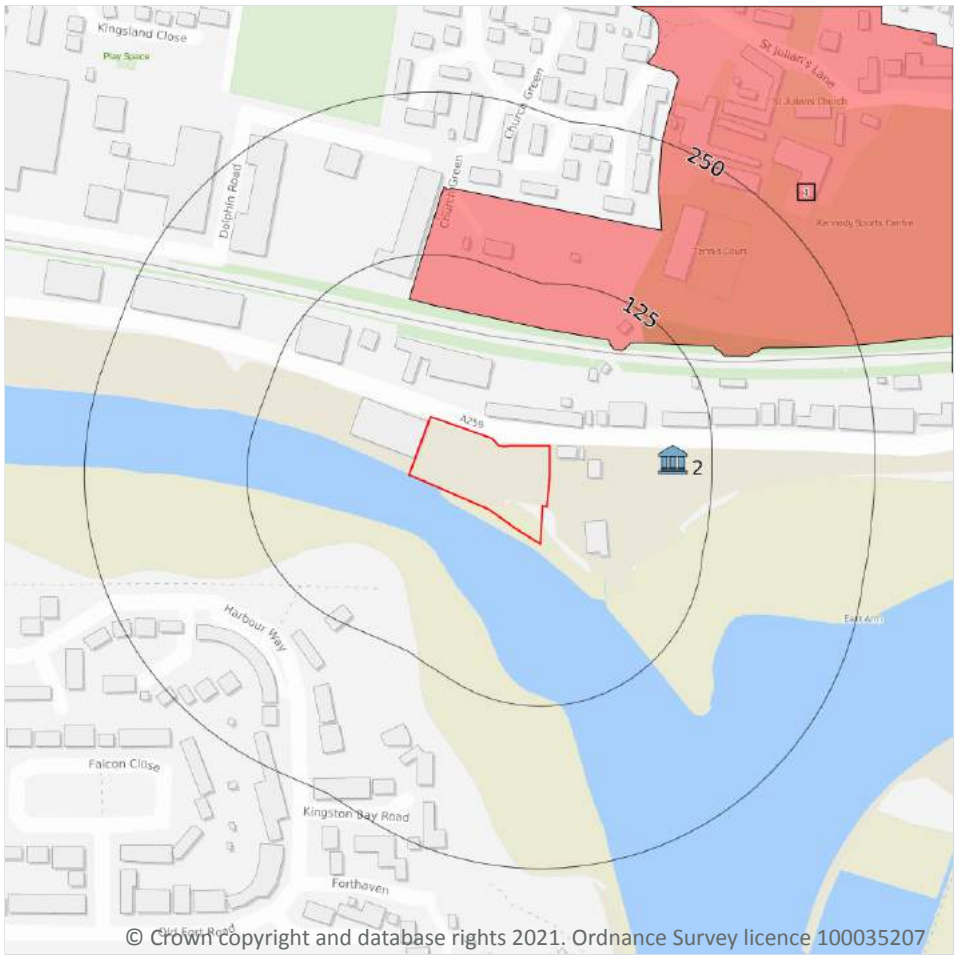
ID: -
Location: 1900m W
SSSI name: Adur Estuary
Unit name: 1
Broad habitat: Littoral Sediment
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of non-breeding birds - Ringed plover, Charadrius hiaticula	Not Recorded	01/01/1900

Feature name	Feature condition	Date of assessment
SM4-28 - Saltmarsh	Not Recorded	01/01/1900

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

Listed buildings

Conservation areas

Conservation areas - no data

National Parks

Areas of Outstanding Natural Beauty

Registered parks and gardens

Scheduled Monuments

World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 74**

ID	Location	Name	Grade	Reference Number	Listed date
2	95m E	Kingston Lighthouse, Southwick Green, Adur, West Sussex, BN43	II	1027897	29/09/1972

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

11.5 Conservation Areas

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 74**

ID	Location	Name	District	Date of designation
1	85m N	Kingston Buci, Adur	Adur	04/1977

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.

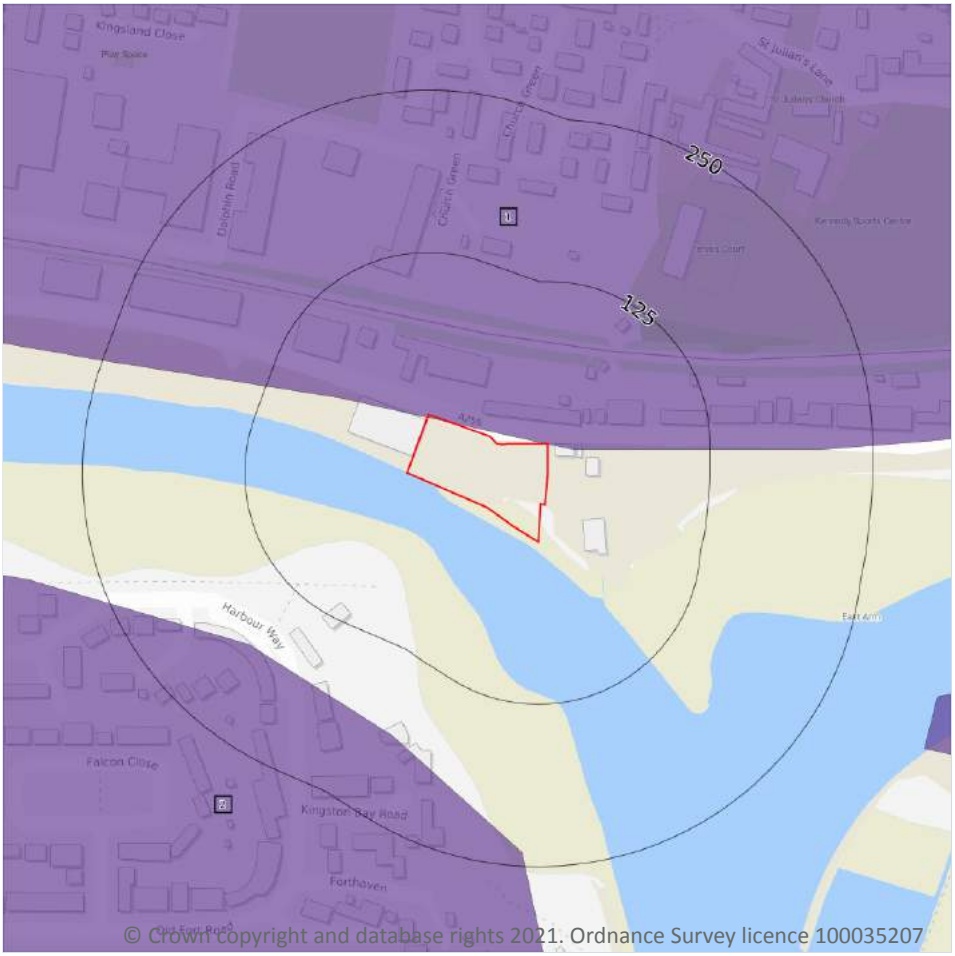
11.7 Registered Parks and Gardens

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	2

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 77**

ID	Location	Classification	Description
1	**On site**	**Urban**	**-**
2	177m SW	Urban	-

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.

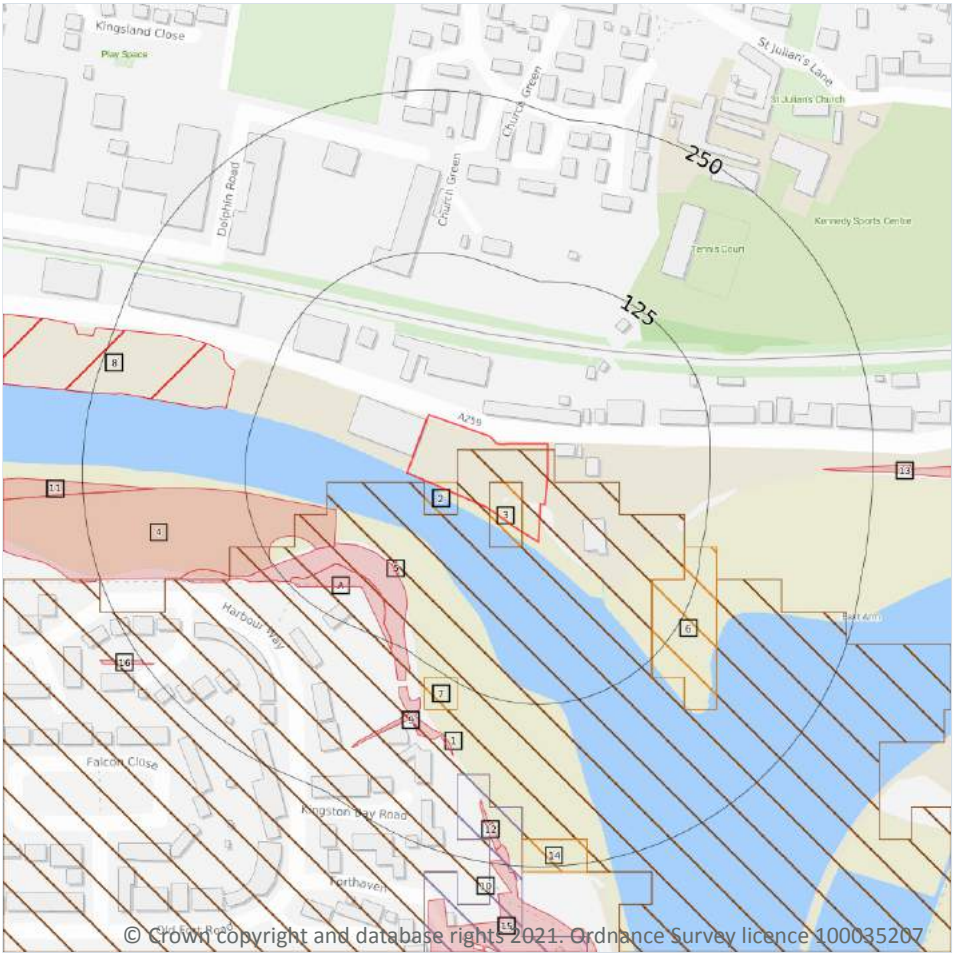
12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

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

13.1 Priority Habitat Inventory

Records within 250m	10

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

Features are displayed on the Habitat designations map on **page 79**

ID	Location	Main Habitat	Other habitats
4	61m SW	Mudflats	Main habitat: GQSIG (INV > 50%); MUDFL (INV > 50%)
5	66m SW	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
A	66m SW	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
A	86m SW	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)

ID	Location	Main Habitat	Other habitats
9	148m SW	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
11	195m W	Mudflats	Main habitat: GQSIG (INV > 50%); MUDFL (INV > 50%)
12	204m S	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
13	214m E	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
15	235m S	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)
16	244m SW	Good quality semi-improved grassland	Main habitat: GQSIG (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	**7**

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.

Features are displayed on the Habitat designations map on **page 79**

ID	Location	Type	Habitat
1	**On site**	**Network Enhancement Zone 2**	**Not specified**
2	**On site**	**Network Enhancement Zone 1**	**Not specified**
3	**On site**	**Network Enhancement Zone 1**	**Not specified**
6	92m E	Network Enhancement Zone 1	Not specified
7	121m SW	Network Enhancement Zone 1	Not specified
10	183m S	Restorable Habitat	Not specified
14	229m S	Network Enhancement Zone 1	Not specified

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	**1**

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.

Features are displayed on the Habitat designations map on **page 79**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
8	148m W	BRITPITS ref: 10872	Low	British Geological Survey BRITPITS database	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	**0**

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	2

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 82**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**TQ20SW**
2	23m N	Full	Full	Full	No coverage	TQ20NW

This data is sourced from the British Geological Survey.

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



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14.2 Artificial and made ground (10k)

Records within 500m	5

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.

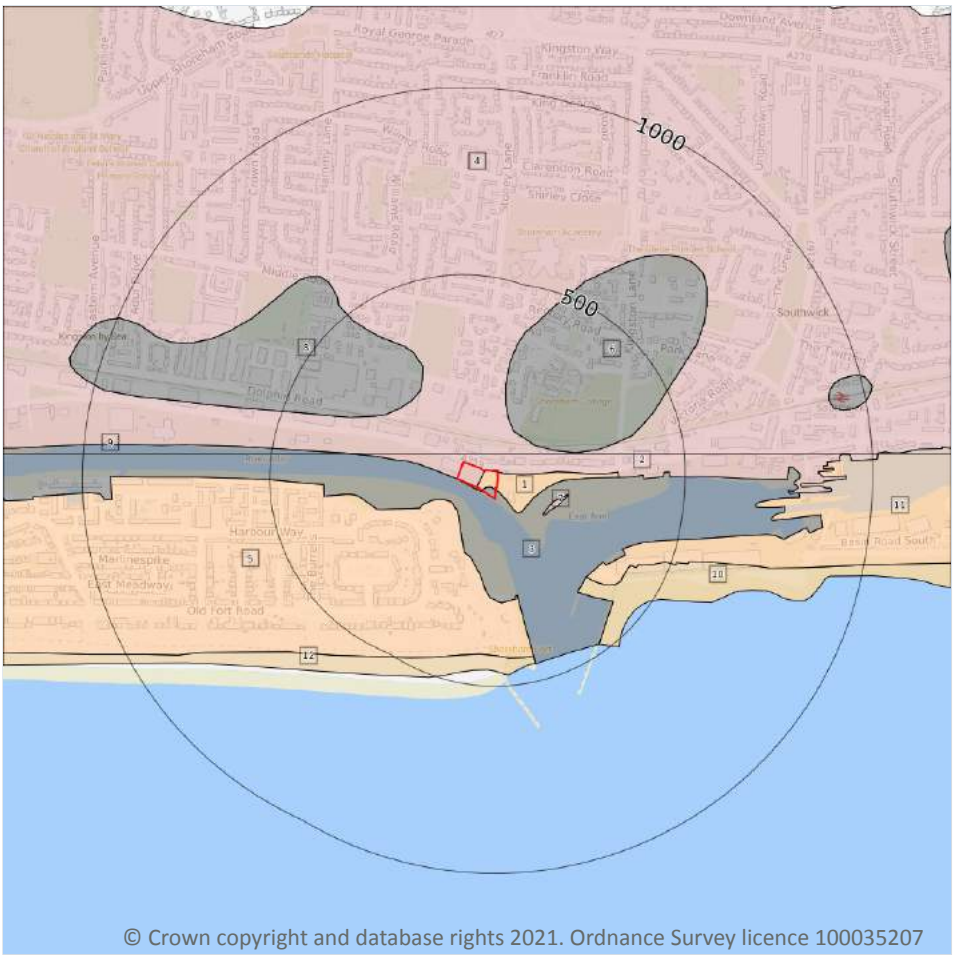
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 83**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
2	69m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	322m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	356m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	473m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

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 **12**

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 85**

ID	Location	LEX Code	Description	Rock description
1	On site	STOB-V	Storm Beach Deposits - Gravel	Gravel
2	On site	HEAD-DMTN	Head - Diamicton	Diamicton
3	On site	TRD-CZ	Tidal River Or Creek Deposits - Silty Clay	Clay, Silty

ID	Location	LEX Code	Description	Rock description
4	23m N	HEAD-DMTN	Head - Diamicton	Diamicton
5	63m SW	STOB-V	Storm Beach Deposits - Gravel	Gravel
6	111m NE	BRK-XSZC	Brickearth - Sand, Silt And Clay	Sand, Silt And Clay
7	136m E	HEAD-DMTN	Head - Diamicton	Diamicton
8	215m NW	BRK-XSZC	Brickearth - Sand, Silt And Clay	Sand, Silt And Clay
9	303m W	TRD-CZ	Tidal River Or Creek Deposits - Silty Clay	Clay, Silty
10	321m SE	BCHD-XSV	Beach Deposits - Sand And Gravel	Sand And Gravel
11	321m SE	STOB-V	Storm Beach Deposits - Gravel	Gravel
12	416m S	BCHD-XSV	Beach Deposits - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

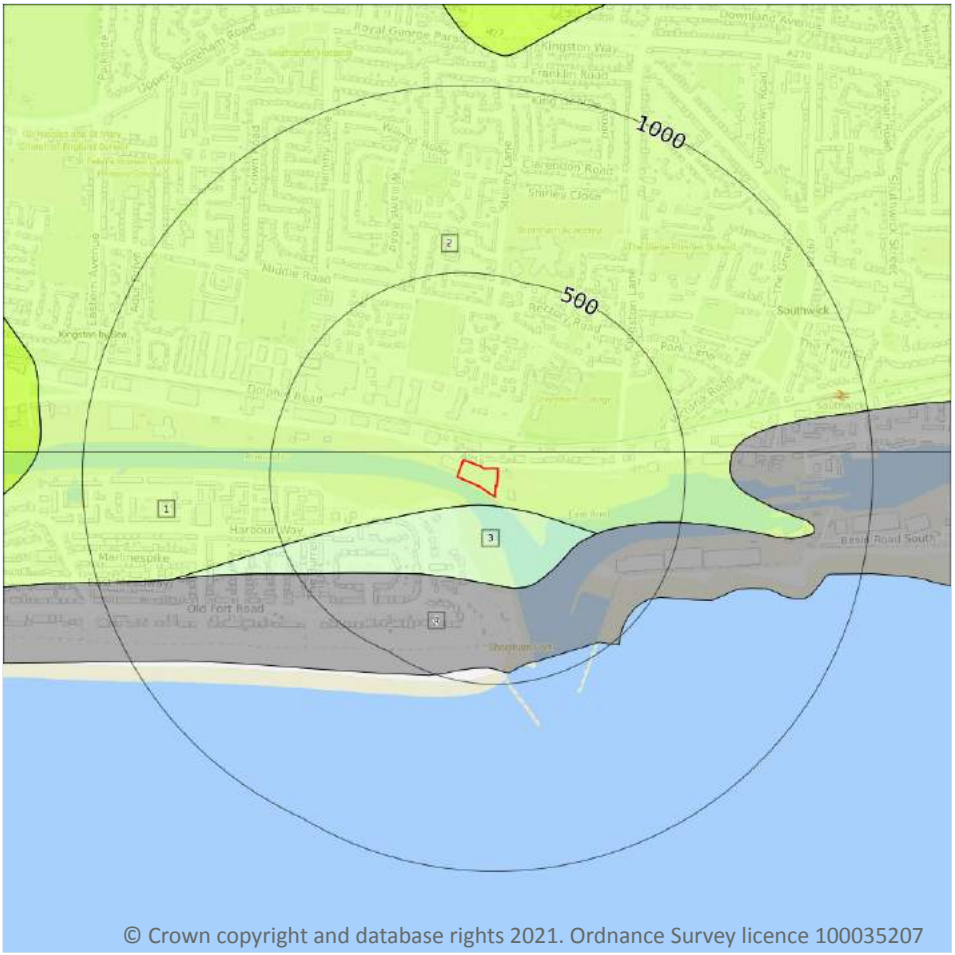
14.4 Landslip (10k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



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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 87**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**TACH-CHLK**	**Tarrant Chalk Member - Chalk**	**Campanian Age**
2	23m N	TACH-CHLK	Tarrant Chalk Member - Chalk	Campanian Age
3	24m S	SPCH-CHLK	Spetisbury Chalk Member - Chalk	Campanian Age
4	232m S	WRB-CLAY	Woolwich And Reading Beds Formation - Clay	Paleocene 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

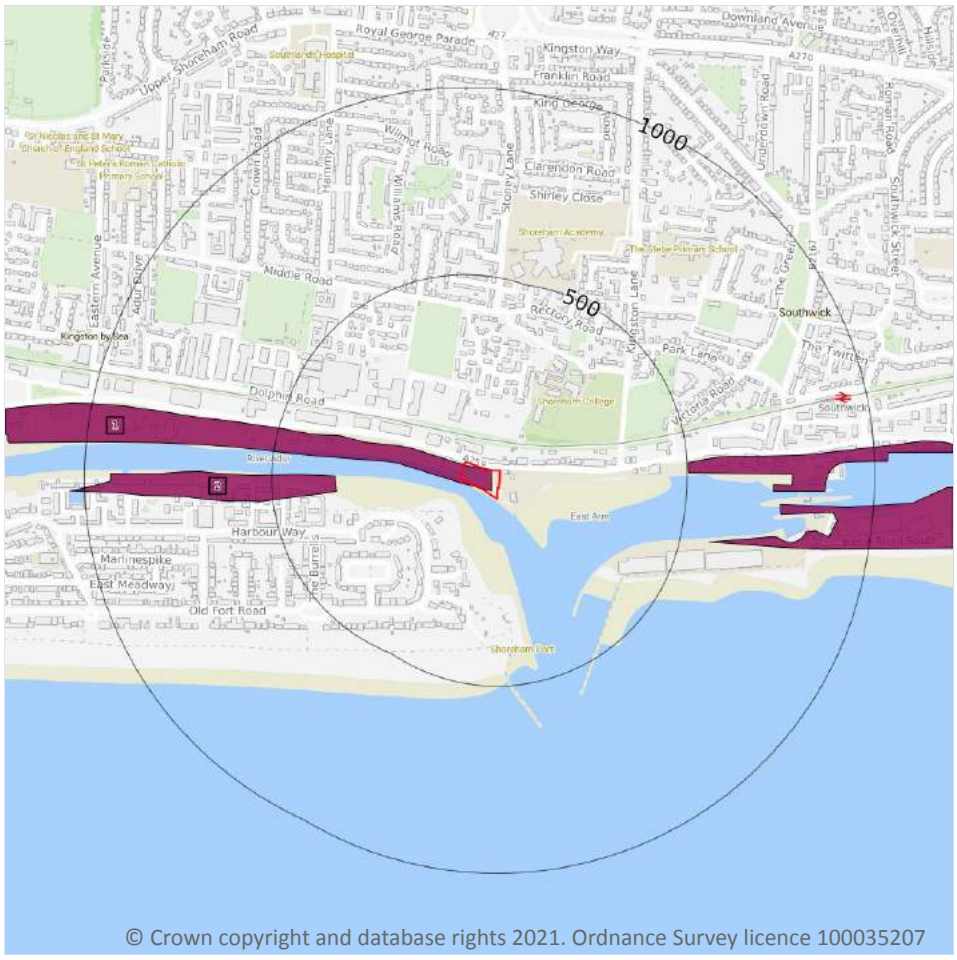
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 89**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW318_333_brighton_and_worthing_v4**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	2

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.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 90**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**
2	329m W	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

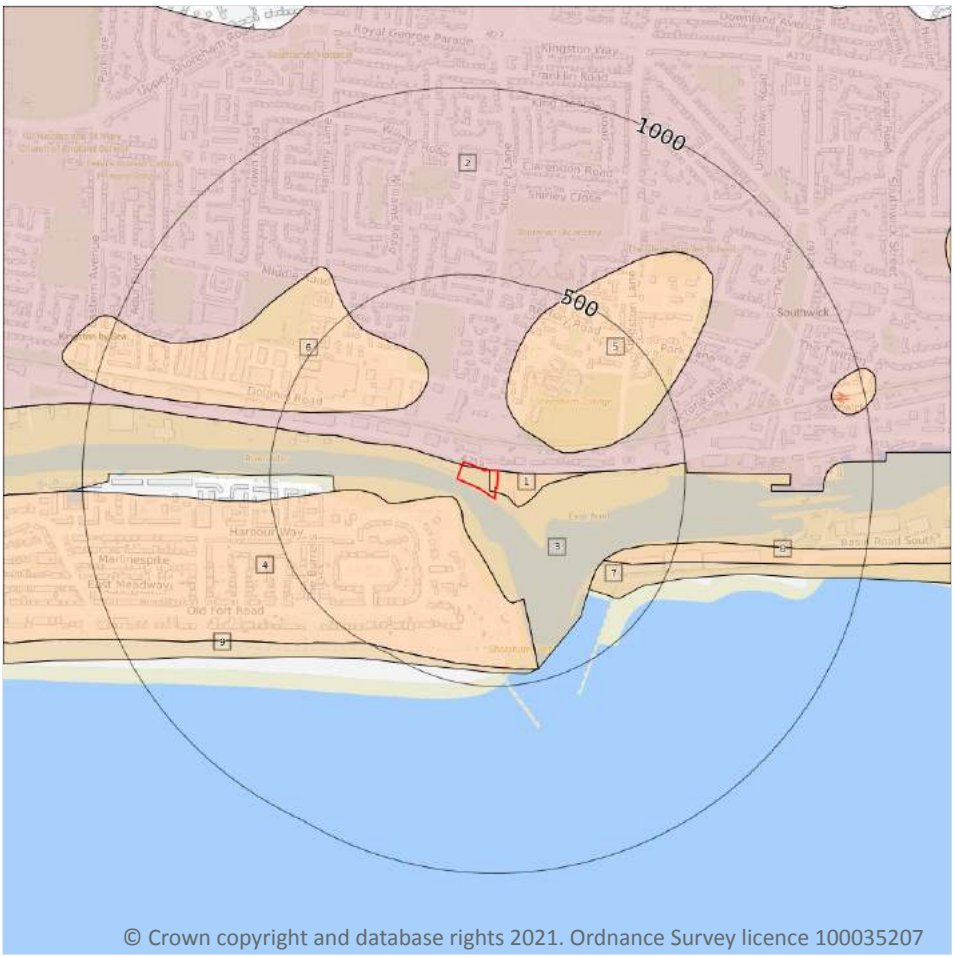
Records within 50m	1

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

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

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	9

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 92**

ID	Location	LEX Code	Description	Rock description
1	On site	STOB-V	STORM BEACH DEPOSITS	GRAVEL
2	On site	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL
3	On site	BTFU-XCZSV	BEACH AND TIDAL FLAT DEPOSITS (UNDIFFERENTIATED)	CLAY, SILT, SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
4	49m SW	STOB-V	STORM BEACH DEPOSITS	GRAVEL
5	130m NE	RTDU-XSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY
6	208m NW	RTDU-XSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY
7	330m SE	BTFU-XCZSV	BEACH AND TIDAL FLAT DEPOSITS (UNDIFFERENTIATED)	CLAY, SILT, SAND AND GRAVEL
8	334m SE	STOB-V	STORM BEACH DEPOSITS	GRAVEL
9	447m S	BTFU-XCZSV	BEACH AND TIDAL FLAT DEPOSITS (UNDIFFERENTIATED)	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	**5**

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**	**Very High**
On site	**Intergranular**	**High**	**Very Low**
On site	**Mixed**	**High**	**Very Low**
23m NW	Mixed	High	Very Low
49m W	Intergranular	Very High	Very High

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.

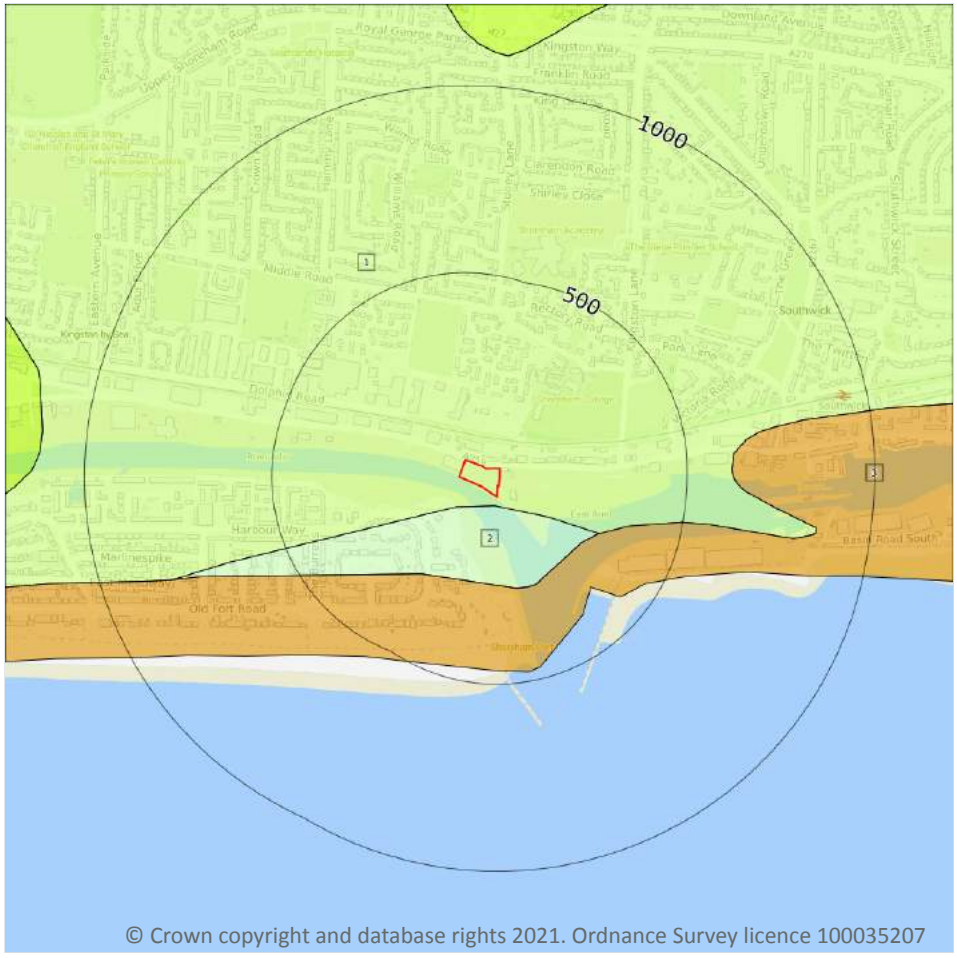
15.7 Landslip permeability (50k)

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 95**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**TACH-CHLK**	**TARRANT CHALK MEMBER - CHALK**	**CAMPANIAN**
2	25m S	SPCH-CHLK	SPETISBURY CHALK MEMBER - CHALK	CAMPANIAN
3	234m S	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	3

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Very High**	**Very High**
23m N	Fracture	Very High	Very High
25m SW	Fracture	Very High	Very High

This data is sourced from the British Geological Survey.

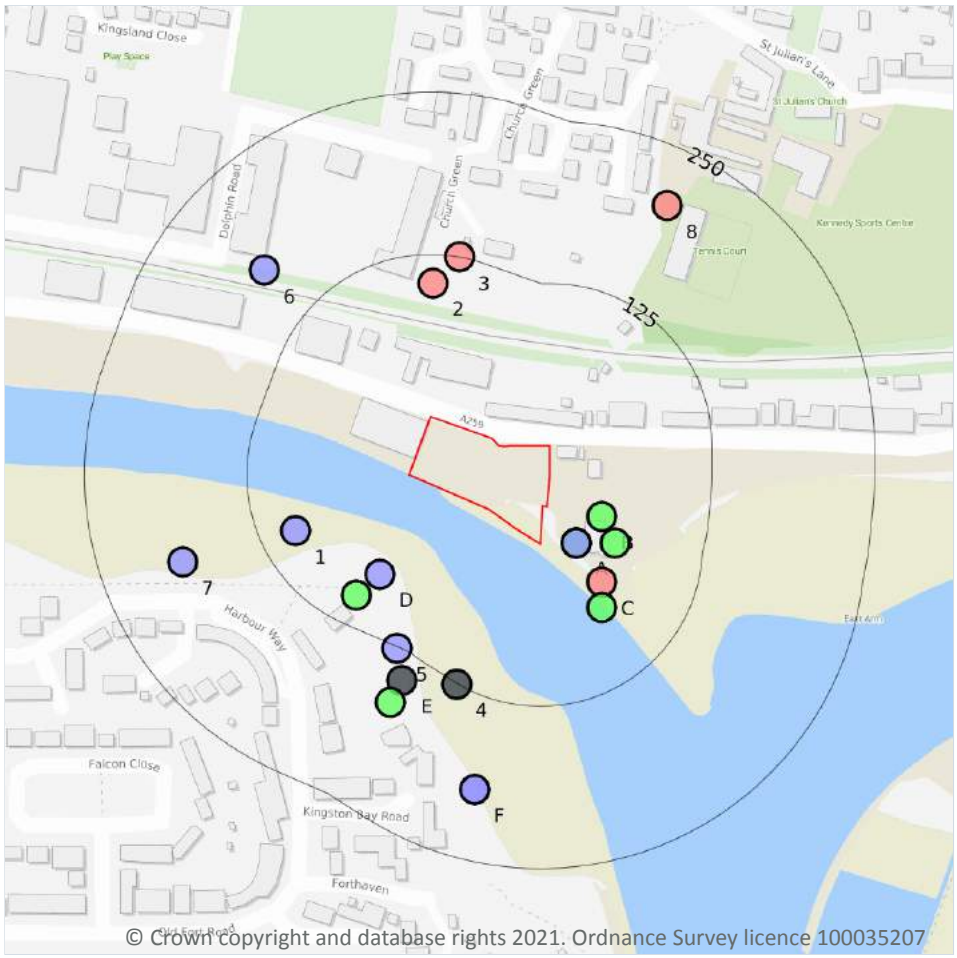
15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes



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Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

16.1 BGS Boreholes

Records within 250m	21

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

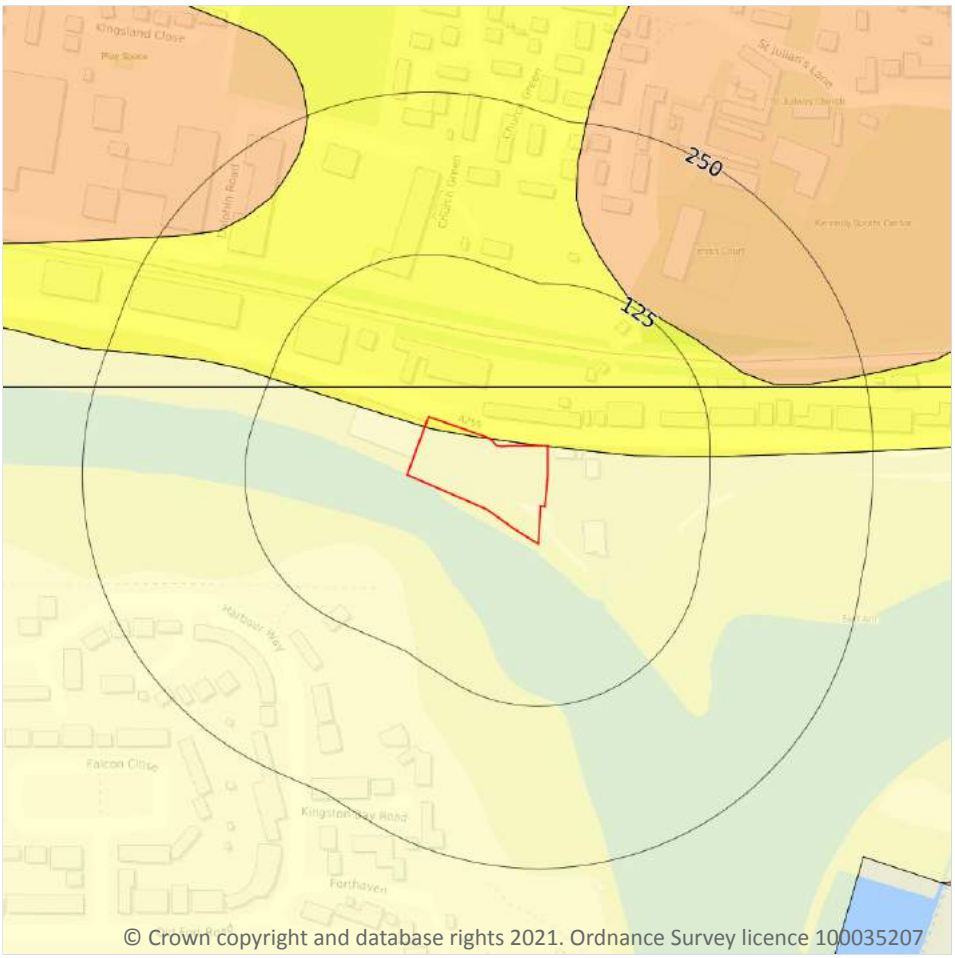
Features are displayed on the Boreholes map on **page 97**

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	27m E	523390 104880	R.N.L.I. SHOREHAM BHL02A	0.8	N	18240248
A	27m E	523390 104880	R.N.L.I. SHOREHAM BHL02B	25.45	N	18240250
A	27m E	523390 104880	R.N.L.I. SHOREHAM BHL02	0.8	N	18240247

ID	Location	Grid reference	Name	Length	Confidential	Web link
B	43m E	523410 104900	R.N.L.I. SHOREHAM BHL01	24.5	N	18240246
C	56m SE	523410 104850	R.N.L.I. SHOREHAM BHM01	30.45	N	18240253
B	57m E	523420 104880	R.N.L.I. SHOREHAM BHL03	25.45	N	18240251
C	68m SE	523410 104830	R.N.L.I. SHOREHAM BHM02	29.5	N	18240255
D	79m SW	523239 104856	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 DP103	5.0	N	20377626
1	98m SW	523174 104889	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 DP104	5.0	N	20377627
D	101m SW	523221 104840	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 WB1/BH2	15.45	N	20377598
2	103m N	523280 105080	KINGSTON BY SEA BH74	198.12	N	583398
3	125m N	523300 105100	BBC TRANSMITTER BOREHOLE	181.0	N	583501
4	126m SW	523298 104771	Shoreham Adur Tidal Walls (West Bank) WS07A	-	Y	N/A
5	126m SW	523252 104799	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 DP102	5.0	N	20377625
E	146m SW	523256 104774	Shoreham Adur Tidal Walls (West Bank) WS07	-	Y	N/A
E	165m SW	523247 104757	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 CP101	20.0	N	20377604
6	171m NW	523150 105090	ROPETACKLE PS BH4	6.1	N	583484
7	187m W	523087 104865	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 DP105	5.0	N	20377628
F	196m S	523312 104690	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 WB1/DP3	10.0	N	20377599
F	196m S	523312 104690	SHOREHAM ADUR TIDAL WALLS OCTOBER 2013 WB1/WS3	6.0	N	20765156
8	206m NE	523460 105140	KINGSTON ON SEA OBSERVATION BH75	211.53	N	583380

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



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Site Outline

Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m	3

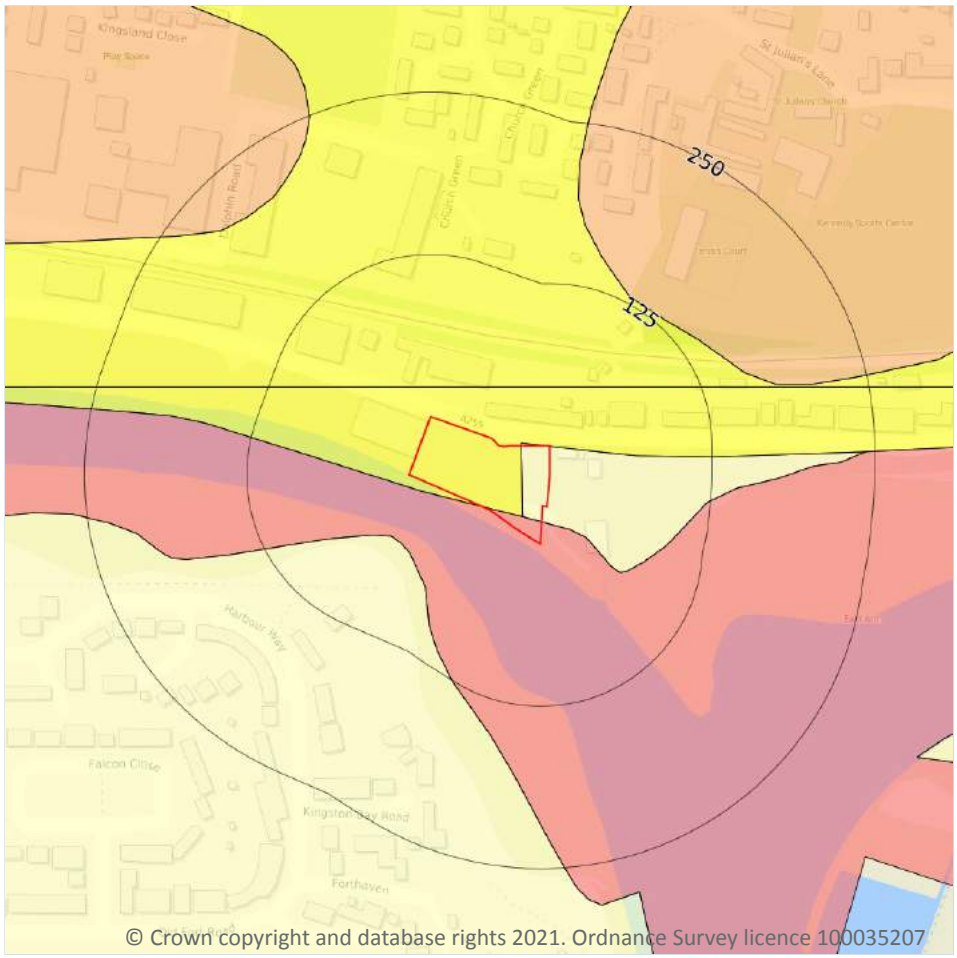
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 99**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**Very low**	**Ground conditions predominantly low plasticity.**
23m N	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	5

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.

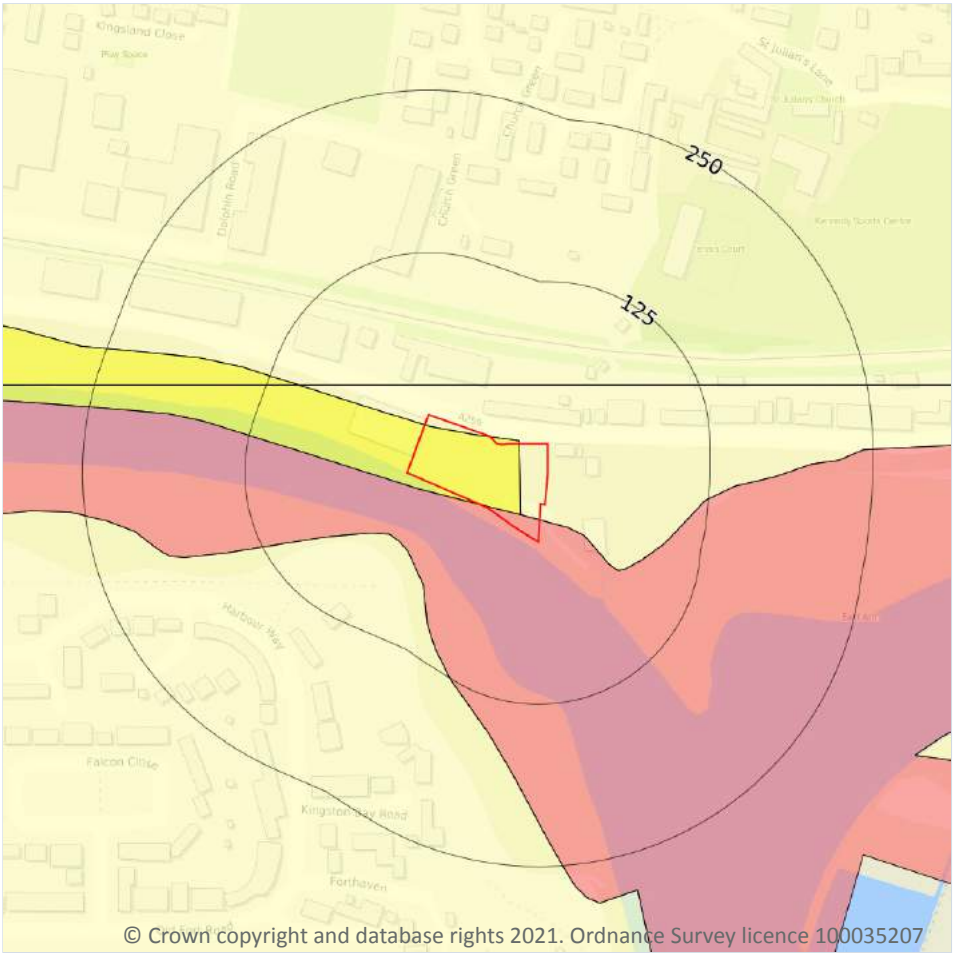
Features are displayed on the Natural ground subsidence - Running sands map on **page 101**

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

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.**
On site	**Moderate**	**Running sand conditions are probably present. Constraints may apply to land uses involving excavation or the addition or removal of water.**
23m N	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
49m SW	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	5

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.

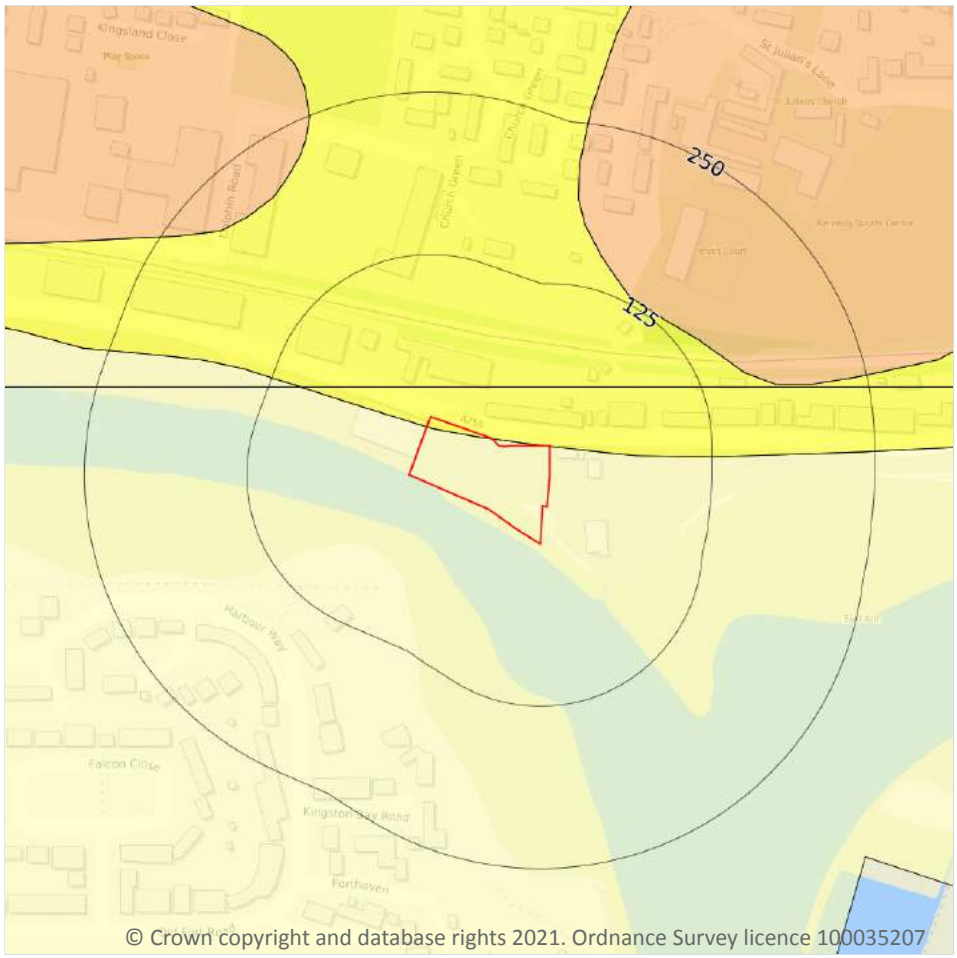
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 103**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

Location	Hazard rating	Details
On site	**Moderate**	**Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.**
23m N	Negligible	Compressible strata are not thought to occur.
49m SW	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



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Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	3

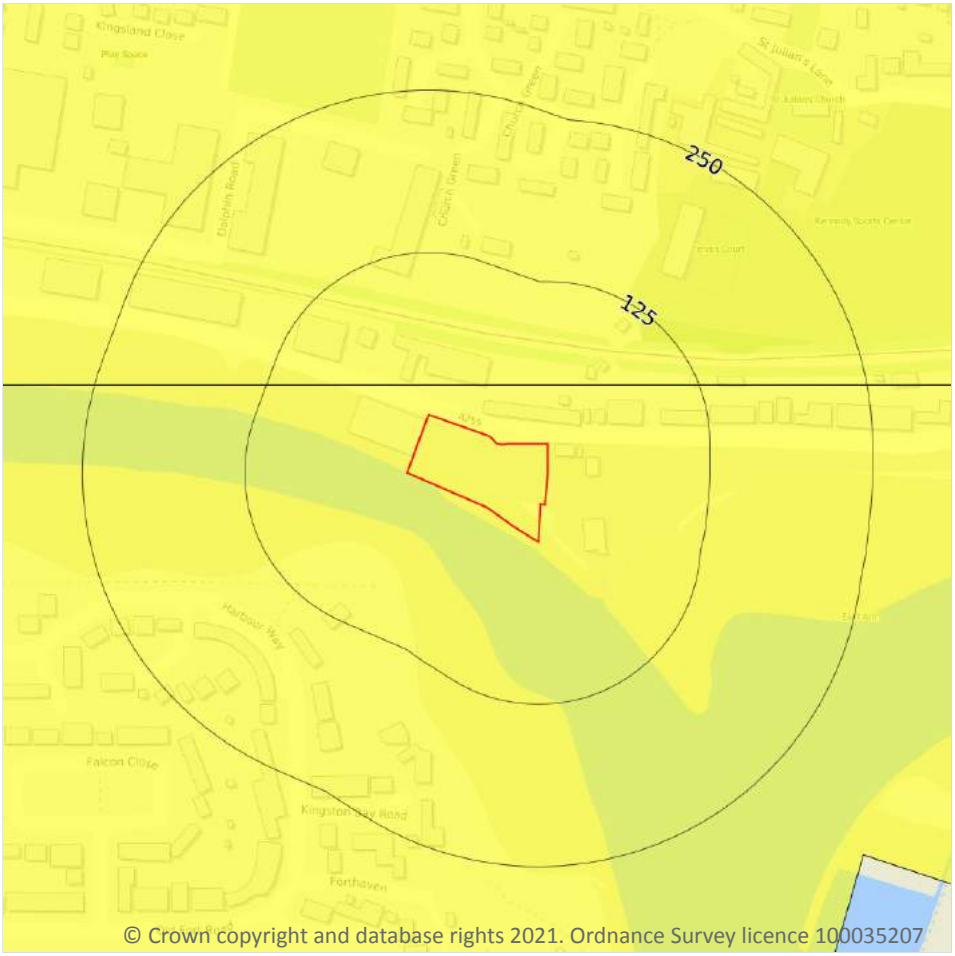
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 105**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**
23m N	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



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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	2

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.

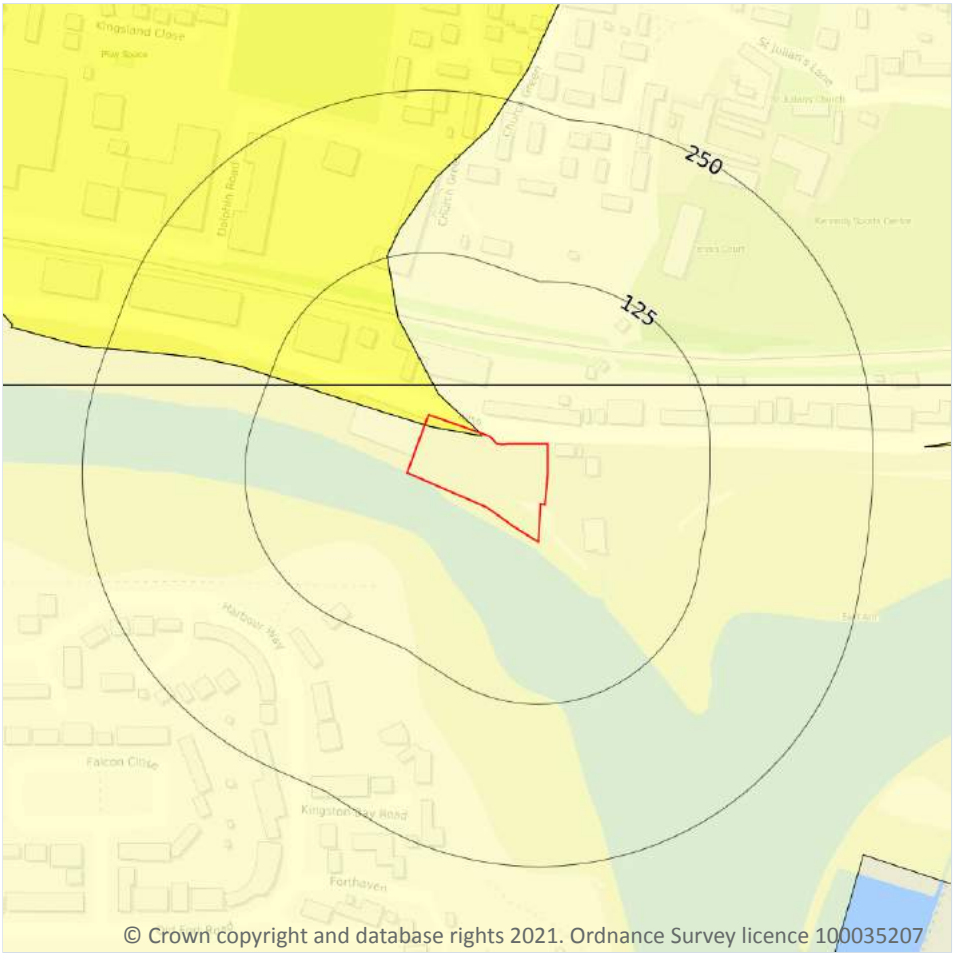
Features are displayed on the Natural ground subsidence - Landslides map on **page 107**

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.**

Location	Hazard rating	Details
23m N	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



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Site Outline

Search buffers in metres (m)

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

17.6 Ground dissolution of soluble rocks

Records within 50m	4

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.

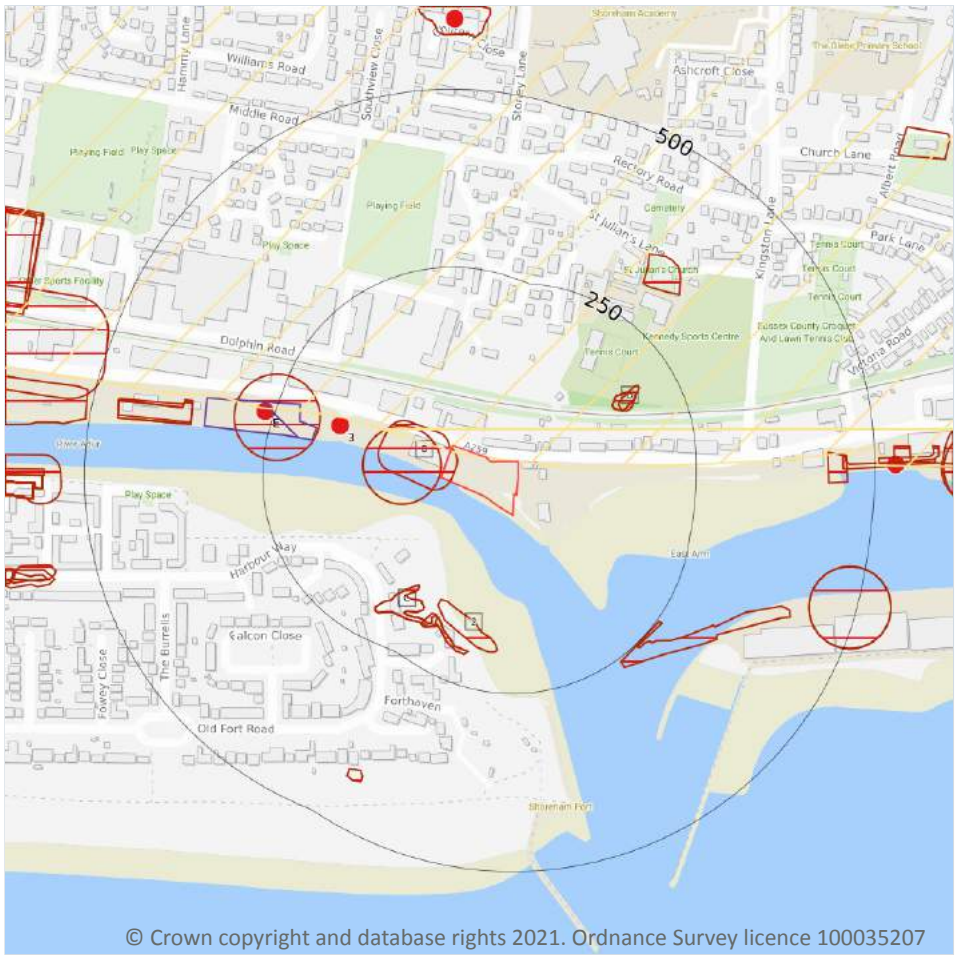
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 109**

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.**

Location	Hazard rating	Details
On site	**Very low**	**Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.**
23m N	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.
23m N	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	2

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 111**

ID	Location	Details	Description
3	157m W	Name: Kingston Wharf Address: SHOREHAM-BY-SEA, West Sussex Commodity: Marine Sand & Gravel Status: Ceased	Type: Sea, river or canal wharf where mineral commodities are unloaded and stored Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
E	263m W	Name: Kingston Railway Wharf Address: SHOREHAM, West Sussex Commodity: Marine Sand & Gravel Status: Active	Type: Sea, river or canal wharf where mineral commodities are unloaded and stored Status description: Site which is actively extracting mineral products, or in the case of wharfs and rail depots, is actively handing minerals

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	11

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 111**

ID	Location	Land Use	Year of mapping	Mapping scale
B	**On site**	**Unspecified Wharf**	**1972**	**1:10000**
B	2m W	Unspecified Wharf	1948	1:10560
C	151m SW	Unspecified Ground Workings	1912	1:10560
C	151m SW	Unspecified Ground Workings	1912	1:10560
2	151m SW	Unspecified Pit	1896	1:10560
D	154m NE	Pond	1948	1:10560
D	154m NE	Pond	1909	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
D	154m NE	Pond	1896	1:10560
D	162m NE	Pond	1873	1:10560
C	175m SW	Unspecified Heap	1896	1:10560
E	185m W	Unspecified Wharf	1982	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	**1**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 111**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
E	188m W	Kingston Railway Wharf	Sand and gravel (marine dredged)	Surface mineral working	Valid	17/9/80

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	**2**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 111**

ID	Location	Name	Commodity	Class	Likelihood
A	**On site**	**Not available**	**Chalk**	**A**	**Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered**
1	23m N	Not available	Chalk	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	**0**

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

This data is sourced from 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.

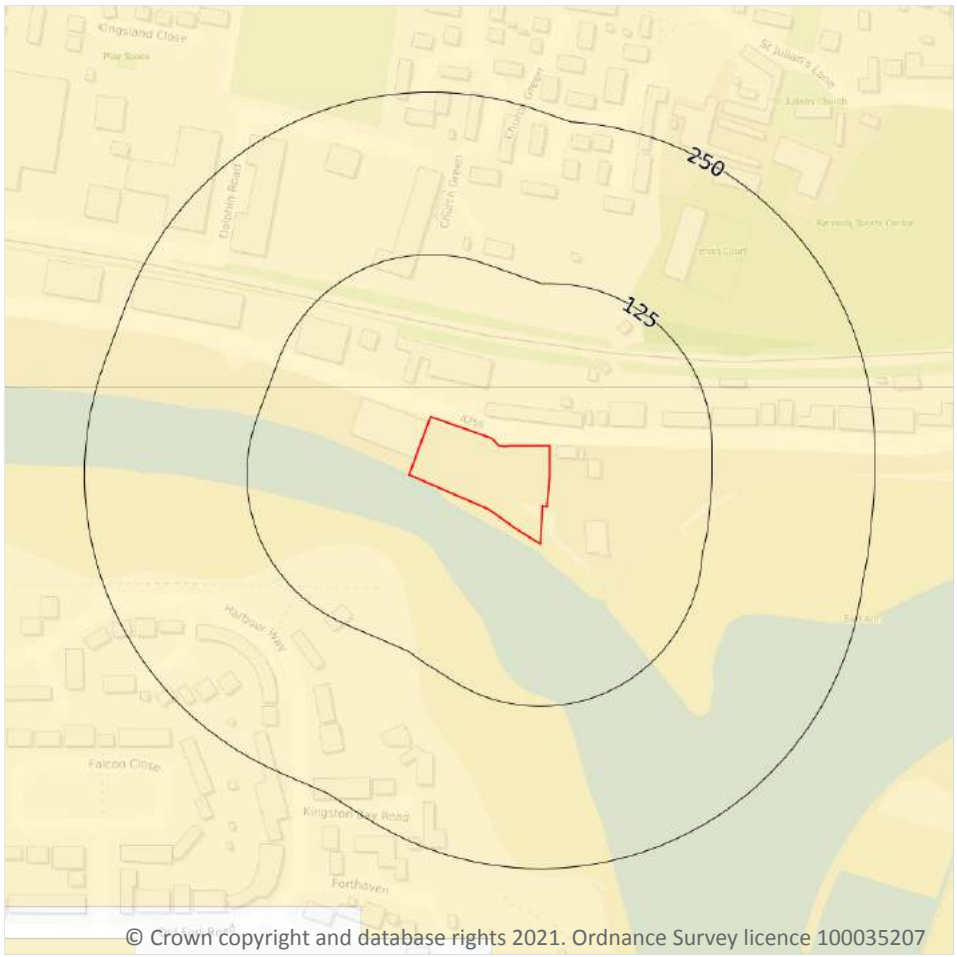
18.13 Clay mining

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 116**

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 **7**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 - 200 mg/kg**	**60 - 120 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
23m N	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
23m N	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
25m SE	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
49m W	15 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m **0**

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

This data is sourced from the British Geological Survey.

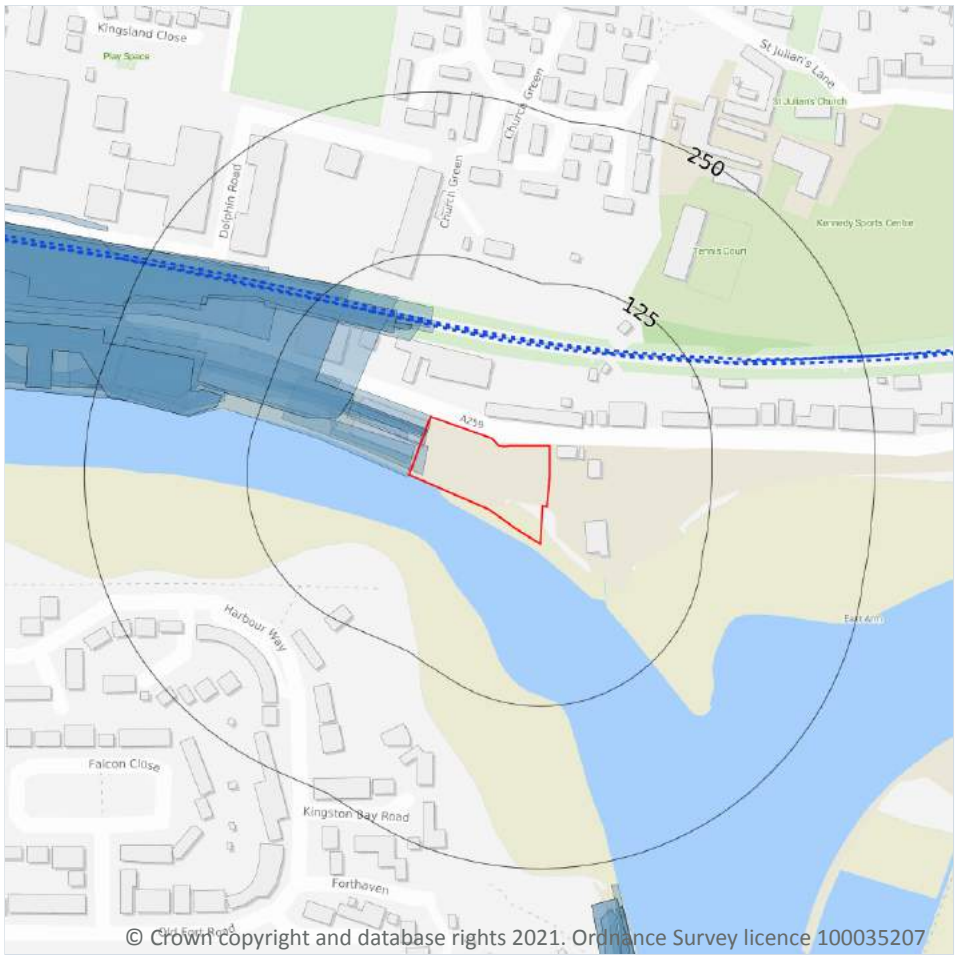
20.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects



Site Outline

Search buffers in metres (m)

- Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	37

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

Features are displayed on the Railway infrastructure and projects map on **page 119**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1969**	**2500**
On site	**Railway Sidings**	**1960**	**1250**
On site	**Railway Sidings**	**1950**	**1250**
On site	**Railway Sidings**	**1950**	**2500**
On site	**Railway Sidings**	**1873**	**10560**
On site	**Railway Sidings**	**1948**	**10560**
1m W	Railway Sidings	1912	10560
1m W	Railway Sidings	1874	2500
5m W	Railway Sidings	1930	2500
11m W	Railway Sidings	1912	2500
61m W	Railway Sidings	1963	10560
62m W	Railway Sidings	1968	10560
62m W	Railway Sidings	1972	10000
65m N	Railway Sidings	1898	2500
68m W	Railway Sidings	1930	2500
69m N	Railway Sidings	1873	10560
69m N	Railway Sidings	1961	1250

Location	Land Use	Year of mapping	Mapping scale
69m N	Railway Sidings	1951	1250
69m N	Railway Sidings	1951	2500
69m N	Railway Sidings	1970	1250
71m NW	Railway Sidings	1948	10560
71m NW	Railway Sidings	1909	10560
75m W	Railway Sidings	1912	2500
77m NW	Railway Sidings	1896	10560
104m W	Railway Sidings	1961	1250
104m W	Railway Sidings	1951	1250
115m NW	Railway Sidings	1912	2500
153m W	Railway Sidings	1948	10560
156m W	Railway Sidings	1909	10560
156m W	Railway Sidings	1896	10560
169m W	Railway Sidings	1951	2500
170m W	Railway Sidings	1912	2500
202m W	Railway Sidings	1970	1250
231m W	Railway Sidings	1960	1250
231m W	Railway Sidings	1950	1250
233m W	Railway Sidings	1950	2500
233m W	Railway Sidings	1969	2500

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	7

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

Features are displayed on the Railway infrastructure and projects map on **page 119**

Location	Name	Type
69m N	West Coastway Line	rail
70m N	Not given	Multi Track
72m N	West Coastway Line	rail
85m NE	Not given	Multi Track
89m NE	Not given	Multi Track
187m NW	West Coastway Line	rail
187m NW	West Coastway Line	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

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