ENVIRONMENTAL DESK STUDY
AND
PRELIMINARY
RISK ASSESSMENT

19 South Street
Havant
Hampshire
PO9 1BU

apple environmental

July 2022

Contents

	Contact information	3
	Apple Environmental company information	4
1	Introduction and objectives	5
2	Site history	6
3	Current setting	9
4	Environmental setting	13
5	Geology	14
6	Hydrogeology and hydrology	16
7	Waste and other infilled land	19
8	Available contaminated land information	20
9	Conceptual site model	21
10	Summary and recommendations	28
11	Limitations	30
12	References	31

Appendices

I	Historical maps	33
II	Environmental datasheets	44

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1 Introduction and objectives

1.1 Introduction

Apple Environmental Limited has been appointed to provide a Phase I environmental desk study report in support of a prior approval for a change of use of a building and associated land from commercial to residential use (planning ref: APP/22/00036. This assessment has been carried out in accordance with the requirements of LCRM April 2021.

1.2 Aim

The principal aim of a Phase I environmental report is to gather the information needed in order to be in a position to assess the presence and/or significance of any land contamination on this site. The resultant information then enables a preliminary risk assessment to be carried out to conclusions in which an acceptable degree of confidence can be placed. These conclusions form the basis of the conceptual site model (CSM). The CSM therefore highlights any potential pollutant linkages at the site based on current and historical use of the land and its immediate surroundings, and if appropriate, proposes further investigation. Any such further investigation will focus on areas currently and previously used for purposes that may give rise to contamination and will take account of land use in the proposed future development, one of the principal goals being the reduction of any uncertainty in the CSM (BSI 10175:2011+A2:2017).

1.3 Objectives

The broad objectives of this report are to obtain information in order to:

- provide information from which likely contaminant-pathway-receptor relationships can be identified;
- evaluate the environmental setting of the site and to identify sensitive receptors;
- assess the likelihood of finding contamination on site, its nature and extent; and
- determine the need or requirements for further investigation, by means of generic or detailed risk assessment.

2 Site history

2.1 Introduction

The site is located in the town of Havant in Hampshire.

2.2 Historical maps

Historical mapping and other archive material has been consulted to ascertain the past use of the site.

1866 - 1869

The site is developed at this time with what appears to be a dwelling.

A road labelled South Street is present to the immediate west running in a north-to-south direction. The surrounding area appears to mainly comprise dwellings, although a parchment manufacturer is shown 50m to the west.

1897 - 1898

The structure on the site appears to have been extended.

1909 - 1914

The area to the immediate east of the site has now been developed with a new road and more dwellings.

1931 - 1932

Some small structures have been built 5m to the south and 50m to the north of the site. These appear to be vehicular garages or similar.

1942

No significant changes to the site or immediate surrounding area.

1952

A public house is now present to the immediate north of the site.

1962 - 1963

The site now appears to be a semi-detached dwelling. Unspecified 'works' are present between 20m and 50m to the north, whilst a garage is located 30m to the south.

1968 - 1969

The aforementioned works located to the north are now labelled as engineering works. Residential development has now occurred to the immediate south of the garage.

1973 - 1975

One of the engineering works buildings to the north is now labelled as a garage.

1986 - 1993

Residential development has occurred to the southwest of the site.

2001 - 2022

No significant changes to the site or immediate surrounding area.

2.3 Archaeological and historical records

Archaeological finds indicate that the area of Havant had seen both Mesolithic and Neolithic settlement.

At the time of the Domesday Book Havant had two watermills for grinding grain into flour and a weekly market. It reportedly had a population of around 100. By the late Middle Ages a wool industry had been established, only to decline by the 17th century.

Leather tanning subsequently became an important industry of the area by the 16th century, with Havant in particular becoming well known for its glove-making industry. This had continued until the 1960s.

Another important industry of the time was parchment-making using local animal skins, which had become established due to the spring water purity which gave a bright white parchment. This had continued until the 1930s.

Havant grew steadily in the 19th century and by 1901 had a population of 4000. Another important trade at that time was brewing; again due to the purity of the spring water. In 1855 there were four breweries and nine malt houses in the town. The purity of the water also saw watercress being grown in the town.

The coastal location was an asset for the town. Fish and shellfish provided a varied food supply, with boats also supplying other markets in the UK and mainland Europe with corn, wool and leather products.

2.4 Identified historical commercial/industrial sites

Through reference to environmental datasheets, sites within 200m of the site with a potentially contaminative past land-use include:

- a parchment works - 40m to the west of the site;
- a flour mill - 94m to the northwest of the site; and
- a water works - 156m to the west of the site.

There have been no recorded historical tanks located within 150m of the site, and also no historical fuel stations located within this same distance. There have however been three historical garages; the closest of which was located 15m to the north dated between 1973 and 1996.

There is one historical energy feature located within 150m of the site, which was an electricity substation located 105m to the southwest of the site between 1988 and 1996.

3 Current setting

3.1 General

The site exists as a two-storey Georgian town-house with a later extension at the rear, accessed via South Street.

Externally, the front section has been paved to create off-road parking, whereas at the rear of the property there are steps leading up to a raised garden, which is laid to lawn. This lies around 1m higher than the ground floor level of the dwelling itself.

Overall, the subject site slopes slightly to the west towards South Street, whereas South Street itself slopes slightly in a north to south direction.

The site is surrounded by dwellings.

Photographs 1 to 5 below show some of the features discussed above.

Photograph 1 Showing the subject building



Photograph 2 Showing the rear garden area



Photograph 3 Showing the rear of the dwelling



Photograph 4 Showing South Street looking northwards



Photograph 5 Showing South Street looking southwards



3.2 Development surrounding the site

Through reference to environmental datasheets, commercial and industrial activities, as well as other potentially significant features which currently exist within 250m of the site include:

- vehicle repair, testing and servicing - 38m to the south of the site;
- cutting, drilling and welding services - 57m to the north of the site;
- published goods - 72m to the north of the site;
- electricity substations - 122m to the west, 144m and 162m to the north and 166m to the east of the site;
- disability and mobility equipment retailer - 146m and 205m to the northwest of the site; and
- a clothing retailer - 227m to the north of the site.

There are no recorded petrol or fuel sites located within 250m of the site, and no underground high pressure oil or gas pipes.

There are two current PPC Part B activities within 500m of the site; the closest of which is located 20m to the south and relates to a waste oil burner.

There are no List 2 Dangerous Substance Inventory Sites within this same distance.

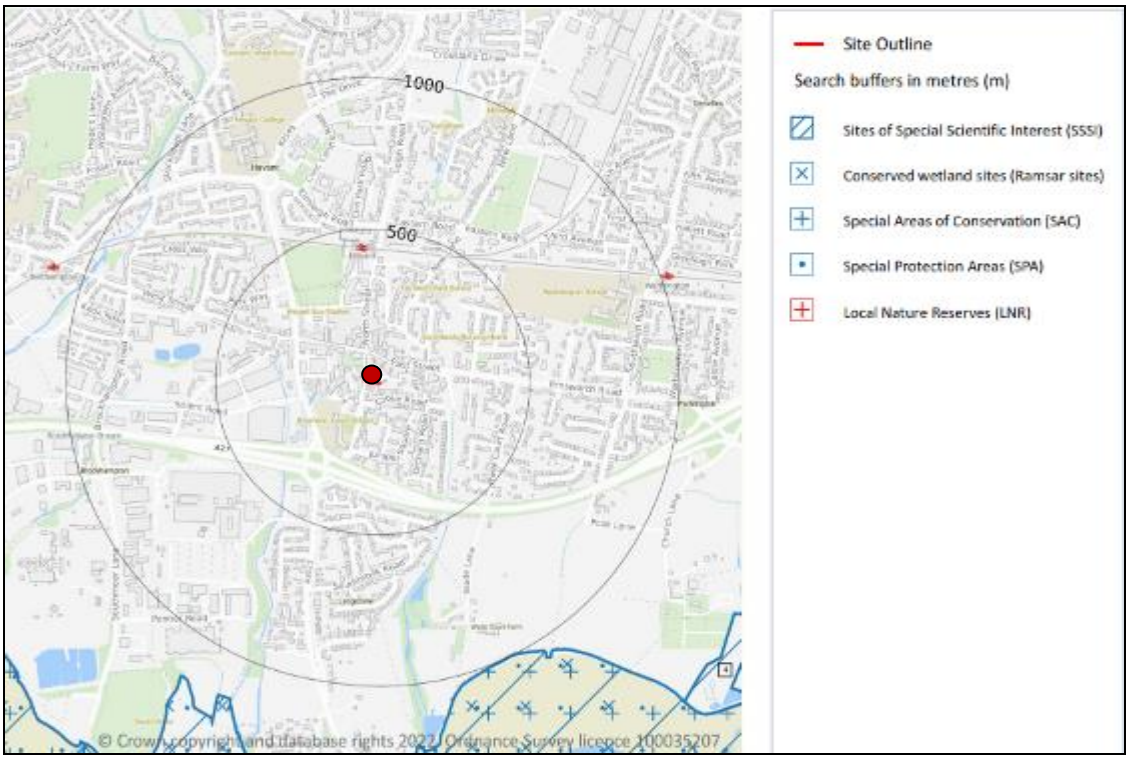
4 Environmental setting

Ordnance Survey maps were used in conjunction with Natural England data in order to ascertain the location of sensitive habitat areas and other places of special or scientific interest within the vicinity of the site.

The site itself does not lie within any habitat-related designated environmentally sensitive area.

The closest of such is the Chichester and Langstone Harbours Site of Special Scientific Interest (SSSI) 1km to the southeast of the site, which has also been designated as a Special Protection Area (SPA), a Special Area of Conservation (SAC), and a Ramsar site.

Figure 1 Location of environmentally sensitive areas



● Subject site (Reference: Natural England (MAGIC))

5 Geology

5.1 Bedrock

Geological data states that underlying geology upon which this site lies is of the Lewes Nodular Chalk Formation, the Seaford Chalk Formation, the Newhaven Chalk Formation, the Culver Chalk Formation and the Portsdown Chalk Formation.

This sedimentary bedrock was formed approximately 72 to 94 million years ago in the Cretaceous Period when the local environment was dominated by warm chalk seas. The depth of this formation at the site is not known.

5.2 Superficial deposits

The bedrock is reportedly overlain by superficial alluvial river terrace deposits, comprising sand, silt, clay and gravel. Once again the depth to which these deposits extend at the subject site is not known.

5.3 Artificial deposits

BGS mapping does not record any artificial deposits overlying the geological deposits at the site location. However it is possible that made-ground or at least hardcore deposits could be present beneath the building structure and extension.

5.4 Borehole data

British Geological Survey (BGS) borehole data, which is expected to share the same bedrock geology as the subject site, has also been consulted for this study.

Borehole Ref. SU65SW159 was located at West Street car park, 165m to the west of the site, and continued to a depth of 15m.

The log details 1.45m of fill comprising clayey, silty gravelly sand with brick fragments, ash clinker and some calcareous nodules. This was underlain by 1.85m of medium dense, black, slightly clayey, slightly silty, gravelly coarse sand with angular flint-gravel and traces of alluvial fine material. This was subsequently underlain by 3.1m of medium dense, rounded, chalky and sub-angular flint gravel in a soft-to-very soft matrix of yellowish brown clayey silt, underlain by 0.4m of cream, firm-to-stiff chalk was present. From here to the base of the borehole moderately weak, white chalk with some flint-gravel fragments was present.

Groundwater was recorded at 1.4m(bgl).

5.5 Soil chemistry

Through reference to available BGS data, the soil in the local area is expected to have an arsenic concentration of 15mg/kg, a cadmium concentration of around 1.8mg/kg, a chromium concentration of between 60 - 90mg/kg, a nickel concentration of 15 - 30mg/kg and a lead concentration of 100 - 200mg/kg.

5.6 Radon affected areas

According to the Health Protection Agency (HPA) mapping, the site is located within a radon affected area as between 3% and 5% of properties are expected to be above the 'Action Level'.

Through reference to BR211 therefore, basic radon protective measures would be deemed necessary for any new development in this area.

5.7 Coal mining and other mining

According to BGS data, the potential exists for sporadic underground chalk mining of restricted extent to have occurred on or near the site, although there is little evidence on historical mapping to support this possibility.

6 Hydrogeology and hydrology

6.1 Groundwater

The expected geology beneath the site is bedrock of the Lewes Nodular Chalk Formation, the Seaford Chalk Formation, the Newhaven Chalk Formation, the Culver Chalk Formation and the Portsdown Chalk Formation, which according to the Environment Agency has been classified as a 'principal' aquifer. This is designated when the geology has high permeability providing a high level of water storage.

It is also expected that the bedrock in this area will be overlain by superficial deposits, which have been given ‘Secondary A’ aquifer status by the Environment Agency. This classification relates to permeable layers capable of supporting water supplies on a local scale rather than a strategic scale.

Through reference to the above BGS borehole data, groundwater has been reported within 200m of the site at a depth of 1.4m(bgl). Furthermore, in view of the presence of the aquifer, the site lies within an Environment Agency designated Groundwater Source Protection Zone 1 (SPZ).

There are three active groundwater abstraction licences operational within 2km of the site; the closest of which is 802m to the west of the site, for potable water supply.

6.2 Surface water

According to the Environment Agency there ae three identified surface water features within 200m of the site; the closest of which is a watercourse located 47m to the west of the site.

With regards to the general movement of surface water at the subject site, in areas where there is hard surfacing, it is expected that any run-off would have been largely managed by the storm drains located on South Street. In the soft landscaped rear garden, rainwater should percolate directly down through the permeable geology.

6.3 Discharge consents

According to environmental datasheets there are no active licensed discharge consents issued within 100m of the site.

6.4 Flooding

6.4.1 Surface water flooding

Through reference to Environment Agency pluvial flood data, the subject site is largely considered to be at low risk from surface water flooding, although considered to be at high risk on the far western section (South Street); as shown below in Figure 2.

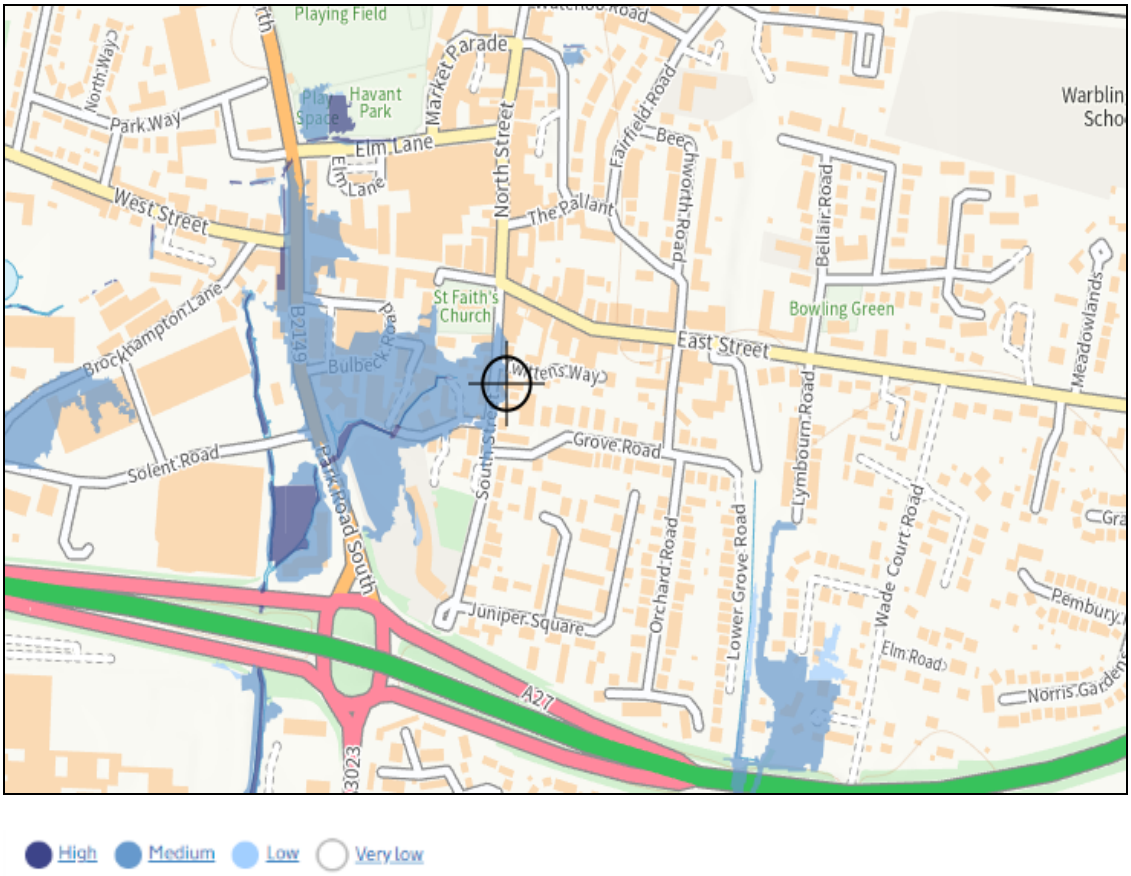
Figure 2 Showing the nearest surface flood risk areas to the site



6.4.2 Fluvial flooding

Through reference to Environment Agency fluvial flood data, once again the majority of the site falls within a designated Flood Zone 1of low risk, as shown below in Figure 3; however the western section of the site falls within both a Flood Zone 2 and Flood Zone 3 area.

Figure 3 Showing the nearest fluvial flood risk areas to the site



7 Waste and other infilled land

7.1 Landfill

Environment Agency data, environmental datasheets and historical maps referenced during the compiling of the report indicate that there have been no historical landfill sites within 1500m of the site.

7.2 Infill

There do not appear to be any records relating to infilling of land in the vicinity of the site, although it is quite possible that either made-ground or at least hardcore could be present beneath the dwelling and any hard surfaced areas of the site.

7.3 Other waste facilities

There are no recorded Environment Agency permitted waste, treatment, transfer or disposal sites within 250m of the site.

There is however a permit exempt activity 130m to the north of the site relating to the sorting and denaturing of controlled drugs for disposal.

8 Available contaminated land information

8.1 Statutory contaminated land

Environmental datasheets state that there are no sites determined as Contaminated Land under Part 2A of the EPA 1990 within 500m of the site.

8.2 Planning search

Previous planning applications have been referred to for this area of Havant in order to determine whether or not land contamination had been a material consideration in any corresponding decision notice, and if so, to consider any effect that these sites may have had on the subject site.

Through reference to an available Havant Borough Council memorandum two site investigations have previously been undertaken on land within 10m of the site; each of which is understood to have been requested due to the presence of a former nearby petroleum retail activity.

The corresponding reports were not available for reference on the planning portal, although the memorandum states that both investigations identified concentrations of contaminants requiring proportionate remedial works.

8.3 Environmental incidents

Environmental datasheets show that there have been no recorded environmental incidents within 250m of the site.

9 Conceptual site model

9.1 Sources

Through reference to available data, the subject site appears to have been occupied by a dwelling since at least the 1860s.

Off-site features of potential concern include the former presence of garages to the north and south of the site; of which the garden of No.17 South Street was known to have been used as a car park for vehicles awaiting repairs. Small scale oil-leaks or similar may have occurred over time and could have migrated through the permeable geology towards the subject site.

Through reference to the aforementioned Memorandum from Havant Borough Council it is further understood that there is a concern that there could be elevated concentrations of lead and PAHs on the subject site as well as petrol solvent vapours.

In summary therefore, in considering this available information, the following contaminants are deemed to be potentially present:

- heavy metals and other inorganics from the possible deposition of made-ground, and off-site vehicular activities;
- hydrocarbons (including PAHs) and other organics (including BTEX compounds) from off-site activities;
- semi-volatile organic compounds from off-site activities;
- asbestos residue - possibly from the demolition of former off-site structures; and
- ground gases from the decomposition of any organic residue within the ground and radon.

9.2 Receptors

The proposal is to occupy the site for continued residential use, for which the principal receptors are considered to be future users of the site, as well as the building structure itself, any associated underground services and groundwater.

9.3 Pathways

The proposal is for the return to the use of the building as a dwelling, retaining the front parking area and rear soft landscaping. In considering this, the potential contamination pathways to receptors would appear to include the following:

- direct and indirect ingestion of soil and soil-dust during occupation;
- direct dermal contact with soil and soil-dust during occupation;
- direct inhalation of soil-dust during occupation;
- consumption of home-grown vegetables;
- inhalation or ignition of gases and/or vapours during occupation;
- direct contact with radon gas;
- direct or indirect contact with main services and building fabric below ground; and
- direct or indirect contact with groundwater and/or other off-site features.

9.4 Possible pathway linkages

9.4.1 Heavy metals and other inorganics

- Direct and indirect ingestion of soil and dust - contaminated soil may be ingested by future occupiers;
- dermal contact with soil and dust - contaminants may be absorbed through direct contact with contaminated soils by future occupiers;
- inhalation of dust - airborne contaminated soil particles could be inhaled by future occupiers;
- contact with building materials and services - some contaminants within the soil may affect the properties of either through direct contact; and
- contact with groundwater - some substances within the soil could be released thereby contaminating groundwater or off-site features.

9.4.2 Hydrocarbons (petroleum and poly-aromatic) and other organics

- Direct and indirect ingestion of soil and dust - organic contaminated soil may be ingested by future occupiers;
- dermal contact with soil and dust - organic contaminants may be absorbed through direct contact with contaminated soils by future occupiers;
- inhalation of dust (indoors and outdoors) - airborne organic contaminated soil particles could be inhaled by future occupiers;
- inhalation of vapours (indoors and outdoors) - organic vapours may be inhaled by future occupiers;
- contact with building materials and services - organics within soil may affect the properties of either through direct contact; and
- contact with groundwater - organics within the soil could be released thereby contaminating groundwater.

9.4.3 Ground gases

- Inhalation - ground gases and radon may be present such that these could be inhaled by future occupiers of the dwellings both indoors and outdoors; and
- ignition - explosive and/or flammable ground gases may be present.

9.4.4 Asbestos

- Inhalation of dust - airborne fibres may be inhaled by future occupiers of the dwellings.

9.5 Assumptions and uncertainties

9.5.1 Site history

It has been assumed that all relevant potentially contaminating activities in the general locality have been identified. Where there is any uncertainty a precautionary approach will generally have been made.

9.5.2 Geology, surface water and groundwater

It has been assumed that the geological map is representative of the site location; however any unexpected variation could affect the risk to groundwater beneath the site (if present).

In addition to this, the nature and presence of groundwater beneath the site is similarly not known. This includes the possible rest level and flow direction; although the borehole logs referred to above have indicated that the groundwater may well be present at a depth of between 1 - 2m(bgl), and therefore considered to be at a vulnerable depth.

9.5.3 Pathways

The absence of preferential flow paths such as pipe work, drains and service runs has not been confirmed.

9.5.3 Contaminants

Although the presence of several contaminants is possible, their nature, location, concentration and mobility are not known. Similarly the actual presence or absence of ground gases has not been confirmed.

9.5.5 Future site use

The likelihood or details of any future alteration or redevelopment of the building is not known; hence risk can only be ascertained with regard to the existing layout and proposed use.

9.5 Assessment of risk

The perceived risk has been assessed below in Table 1 and the risk algorithm used has been shown below in Figure 4.

The risk has been assessed on the understanding that the project principally involves internal alteration of the building and may only require minor external work, for the purposes of reverting it back to residential use with a soft landscaped garden area.

Figure 4 Risk assessment algorithm

Potential severity	Risk rating						Severity of hazard	Probability of hazard	Overall risk
	5	5	10	15	20	25	5 = Fatality	1 = Improbable	1 - 6 Low
	4	4	8	12	16	20	4 = Major	2 = Remote	8 - 12 Moderate
	3	3	6	9	12	15	3 = Minor	3 = Possible	15 - 25 High
	2	2	4	6	8	10	2 = Negligible	4 = Probable	
	1	1	2	3	4	5	1 = None	5 = Certainty	
		1	2	3	4	5			
	Probability						Severity of hazard x probability = risk rating		

Table 1 Perceived risk to receptors

Source(s) identified	Identified pathways	Overall risk	Comments
Possible heavy metals and other inorganics, hydrocarbons (including PAHs), SVOCs, asbestos and ground gases including radon	Direct ingestion of soil and soil dust	8	The likelihood of ingesting soil during recreation is low. Ingestion is most likely to be limited to trace quantities through unwashed hands or ingesting airborne dusts etc. However the possibility exists for harmful contaminants to be present, therefore the corresponding risk must at least be deemed to be low-moderate.
	Dermal contact with soil and soil dust	12	The potential for touching soil during recreation is high. It is also possible that some of the contaminants potentially present could exert a biological effect from absorption through the epidermis, or alternatively be transferred to the mouth. In either instance the extent of uptake is still expected to be low, although as the possibility exists for harmful contaminants to be present, the corresponding risk must again at least be considered to be moderate.
	Inhalation of soil or soil-derived dust	15	The potential for inhaling soil or airborne soil-derived dust during recreation is low-moderate; although as the possibility exists for the soil to contain asbestos fibres the corresponding risk must be considered potentially high until it can be shown otherwise.

Table 1 (Cont.) Perceived risk to receptors

Source(s) identified	Identified pathways	Overall risk	Comments
Possible heavy metals and other inorganics, hydrocarbons (including PAHs), SVOCs, asbestos and ground gases including radon	Inhalation and/or ignition of gases and/or vapours	12	There is a possibility that hydrocarbon or solvent residue could be present within the soil beneath the site, such that this could release vapours. The possibility also exists for made-ground deposits to be generating ground gases. Despite this, the likelihood of either being significant is low. It is further noted that the site lies within an area where the background radon concentration is potentially higher than normal. Until shown otherwise therefore, the risk from exposure to these gases must at least be considered moderate.
	Direct contact with buildings	4	Some of the substances potentially present could be a risk to building fabric or underground services. This is especially so for hydrocarbon residue. However as the existing building/services show no evidence of having been impacted, the risk is deemed to be low.
	Contact with groundwater and other off-site receptors	8	Some substances can present a risk to groundwater. Despite the possibility that hazardous contaminants may be present in the soil at this site, these substances are unlikely to have originated from the subject site. It is much more likely that the aforementioned off-site sources would have had a much greater potential in this area for impacting the groundwater. Consequently any impact that the subject site may be having could be considered negligible, but until such time that this can be shown, the risk must at least be considered moderate.

10 Summary and recommendations

10.1 Summary

This report has highlighted the fact that the subject building has generally been in residential use since at least 1866; with the exception of the dwelling being in use as offices most recently.

Furthermore the report has highlighted the presence of two garages to the north and south of the site, whilst the rear garden of the adjacent property at 17 South Street has been used as a car park for vehicles awaiting repairs.

Small scale oil-leaks or similar may have occurred over time and may have migrated through the permeable geology towards the subject site.

As such the report has identified a potential contamination concern due to the possible presence of hydrocarbon and solvent residue, as well as the possibility for made-ground to be present, however; there is little to suggest that this ground would be generating significant quantities of ground gases.

The site also lies within an area potentially affected by radon gas.

In addition to these contamination sources, the conceptual model has identified a number of pathway linkages, suggesting that there could be some degree of unacceptable risk to receptors; mainly future site occupiers, and to a lesser extent groundwater and other off-site media.

10.2 Recommendations

In view of the above conclusion further assessment of risk would need to be undertaken in the form of a precautionary intrusive investigation.

More specifically it is recommended that the soil in the rear garden is chemically and physically characterised to a depth of at least 1000mm below the surface in order to determine whether there may be any actual risk from residual contamination.

In undertaking this investigation, soil samples should (at least) be obtained from a minimum of three separate locations at depths of 100 - 200mm and 500 - 600mm below the surface; thereby representing the direct and indirect soil contact zones. Samples should be analysed for the determinands highlighted in the conceptual model.

If groundwater is present at this depth then this too should be sampled for dissolved and/or suspended contamination using the same analytical suite.

In characterising the nature of the ground beneath the surface; more specifically the presence, nature and depth of any made-ground deposits, the conceptual site model (CSM) and perceived risk should be reviewed, in order to determine whether or not additional soil sampling is required or ground gas monitoring should be considered. The latter would depend on the presence of either significant hydrocarbon residue or other organic content.

As stated above, the site lies within an area where the background radon levels may well be greater than normal. It is requirement therefore for all new dwellings in this area to have appropriate radon barriers installed at foundation level. However; as the building is remaining in-situ it may be prudent to undertake some form of radon monitoring (minimum of 2 months) both internally and externally to determine the actual background radon level at this location.

Finally, should there be a need for any groundworks, it is recommended that an informal observation strategy is put in place. Care should be taken during the working of any part of the site to investigate any soils, which could be suspected by sight, odour or suspicion, to be contaminated.

In the event of any discovery of potentially contaminated soils or materials, the location, type and quantity should be recorded, and the contaminated land officer for the Havant Borough Council notified immediately. Approval should be sought prior to continuing groundworks or implementing any mitigation.

It is suggested that the above proposed action should provide satisfactory reassurance in this instance. The findings from the investigation should allow any uncertainties or presumptions within the conceptual site model to be readdressed, and the risk reassessed accordingly.

11 Limitations

The results, comments and recommendations within this report are based upon the information made available at the time of undertaking this work, and relate to this specific work only. They must not be used to assess similar concerns at any other time, or at any other location.

Furthermore it should be pointed out that Apple Environmental Limited has been contracted to provide an objective preliminary risk assessment only, and as such has made every effort to achieve this aim.

Apple Environmental Limited will not be held responsible for the accuracy of information quoted from third party sources, and furthermore will not be held responsible for any subsequent outcomes arising from the implementation of recommendations herein based on this information.

12 References and other sources of information

1. Investigation of potentially contaminated sites - code of practice (BSI 10175:2011+A2:2017)

2. Land Contamination Risk Management (LCRM) - Environment Agency (April 2021)

3. Groundsure EnviroInsight - historical mapping and environmental data report.

4. Natural England Nature on the map: http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx.

5. British Geological Survey website: http://www.bgs.ac.uk.

6. Environment Agency website: http://apps.environment-agency.gov.uk/wiyby/default.aspx.

7. A History of Havant - Local Histories

8. A Brief History of Havant (thespring.co.uk)

APPENDICES

I Historical maps
II Environmental and geological datasheets



Groundsure INSIGHTS

Site Details:

19, SOUTH STREET, HAVANT, PO9 1BU

Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: County Series

Map date: **1869**

Scale: 1:2,500

Printed at: 1:2,500

N
W E
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Surveyed 1869
Revised 1869
Edition N/A
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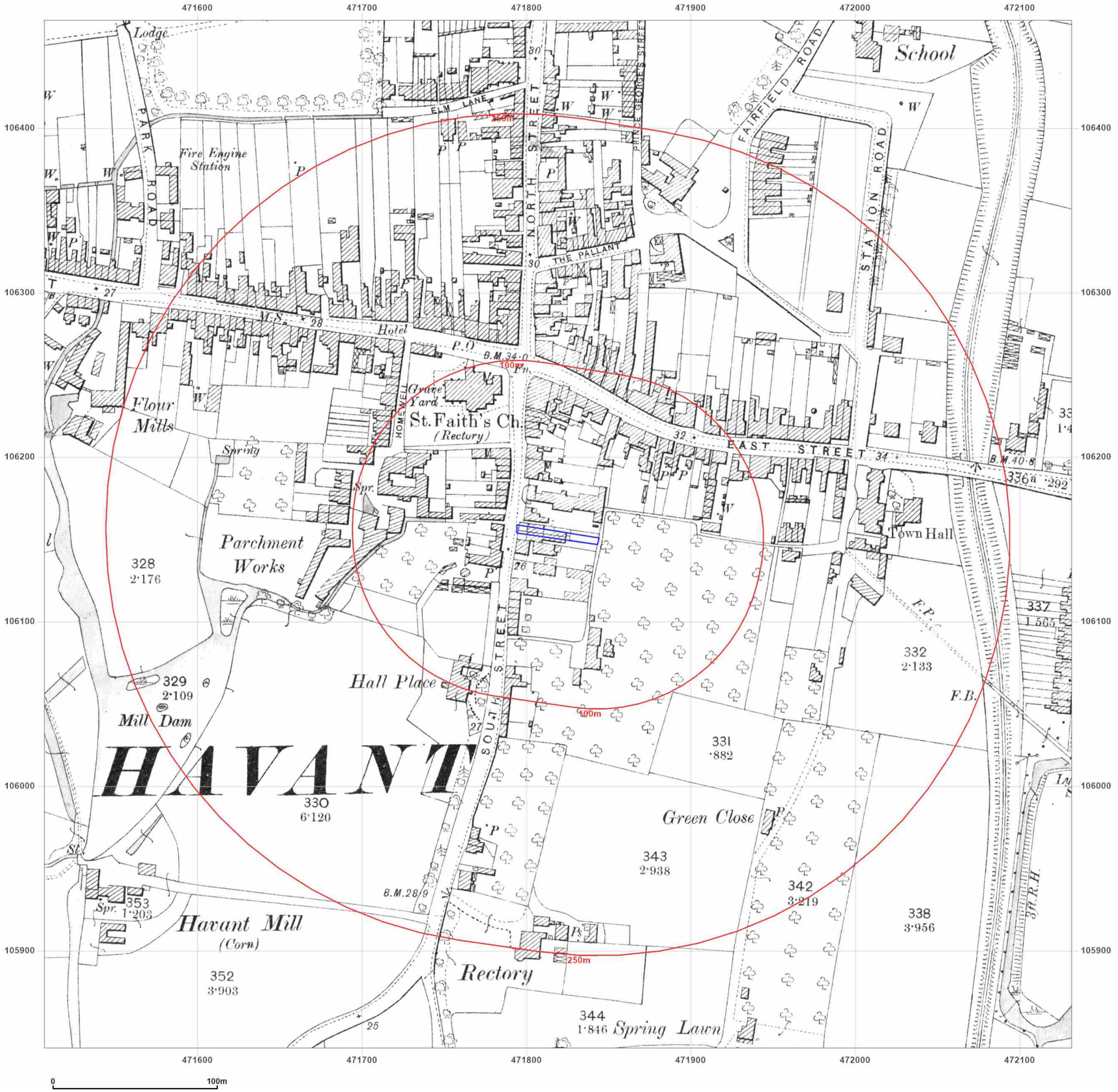
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Map legend available at:
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Groundsure INSIGHTS

Site Details:

19, SOUTH STREET, HAVANT, PO9 1BU

Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: County Series

Map date: **1897**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1897
Revised 1897
Edition N/A
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Groundsure INSIGHTS

Site Details:

19, SOUTH STREET, HAVANT, PO9 1BU

Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: County Series

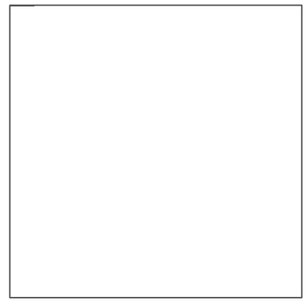
Map date: **1909**

Scale: 1:2,500

Printed at: 1:2,500

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Revised 1909
Edition N/A
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Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: County Series

Map date: **1932**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1932
Revised 1932
Edition N/A
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Levelled N/A

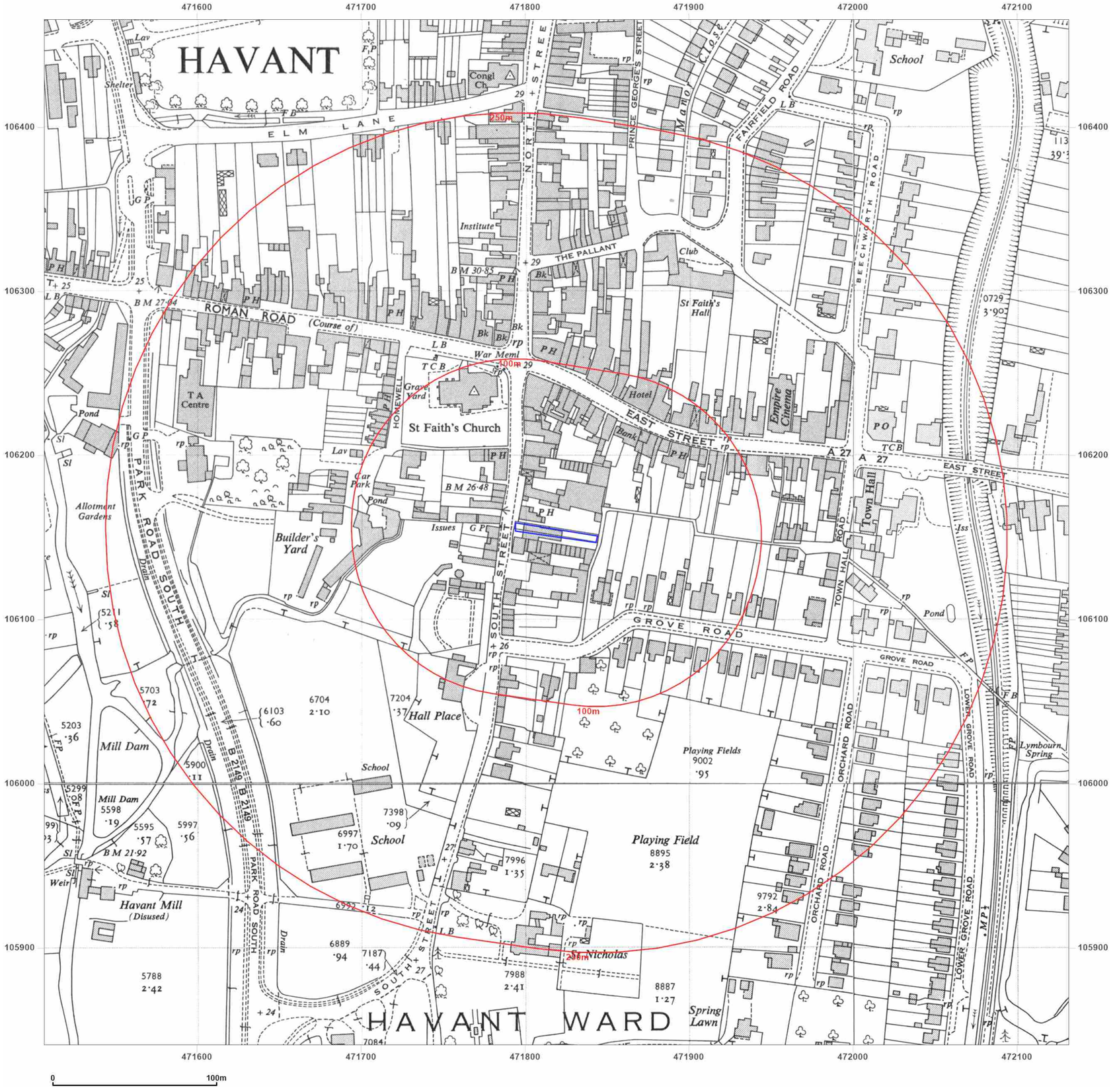
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Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: National Grid

Map date: **1952**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1942

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1952
Revised 1952
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Site Details:

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Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: National Grid

Map date: **1959-1962**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1960 Revised 1960 Edition N/A Copyright 1960 Levelled 1957		Surveyed 1961 Revised 1961 Edition N/A Copyright 1962 Levelled 1958
Surveyed 1958 Revised 1958 Edition N/A Copyright 1959 Levelled 1946		Surveyed 1961 Revised 1961 Edition N/A Copyright 1961 Levelled 1958

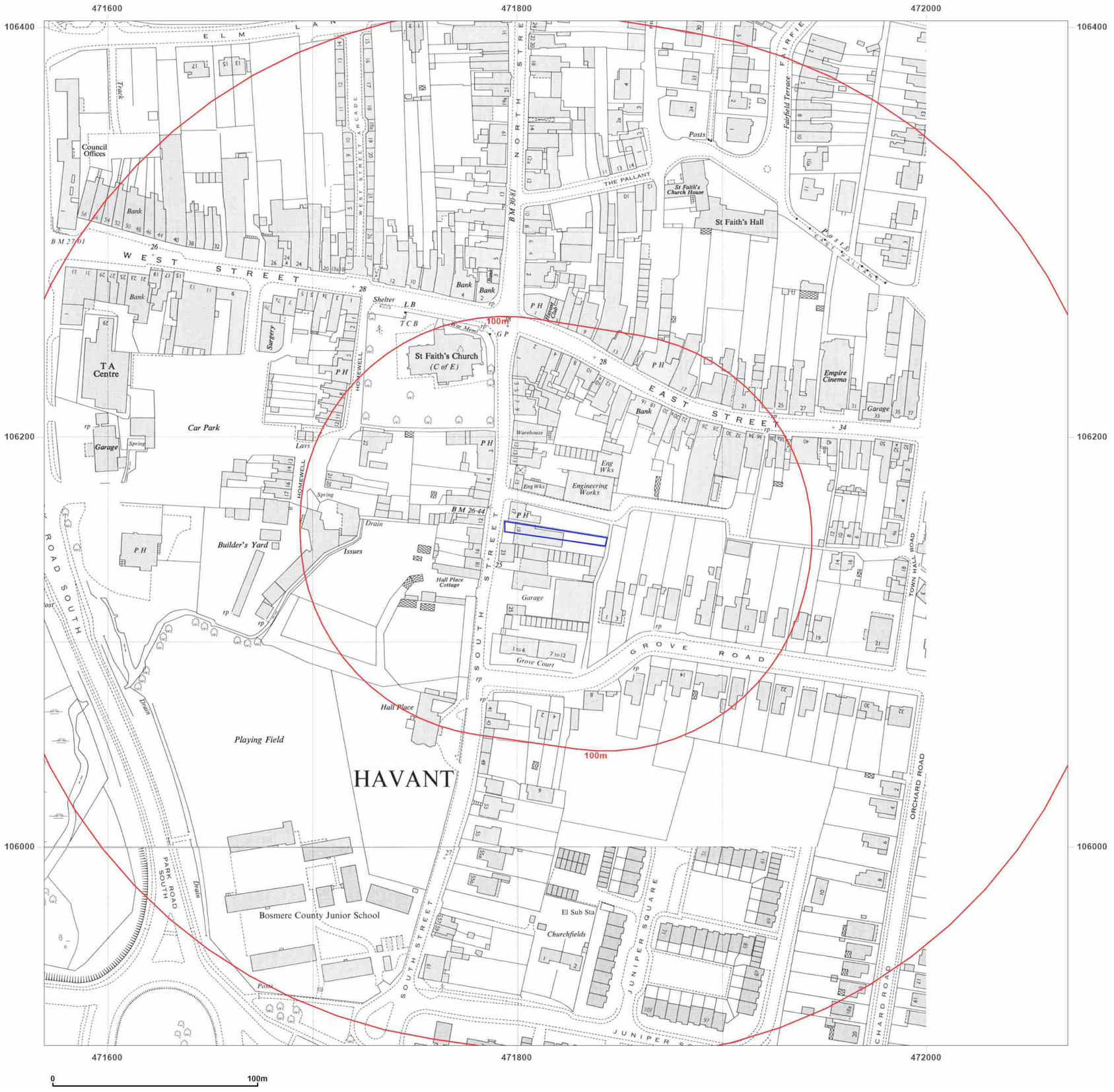
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Site Details:

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Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: National Grid

Map date: **1965-1968**

Scale: 1:1,250

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Site Details:

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Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: National Grid

Map date: **1971-1973**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1958 Revised 1972 Edition N/A Copyright 1973 Levelled 1957		Surveyed 1961 Revised 1971 Edition N/A Copyright 1972 Levelled 1958

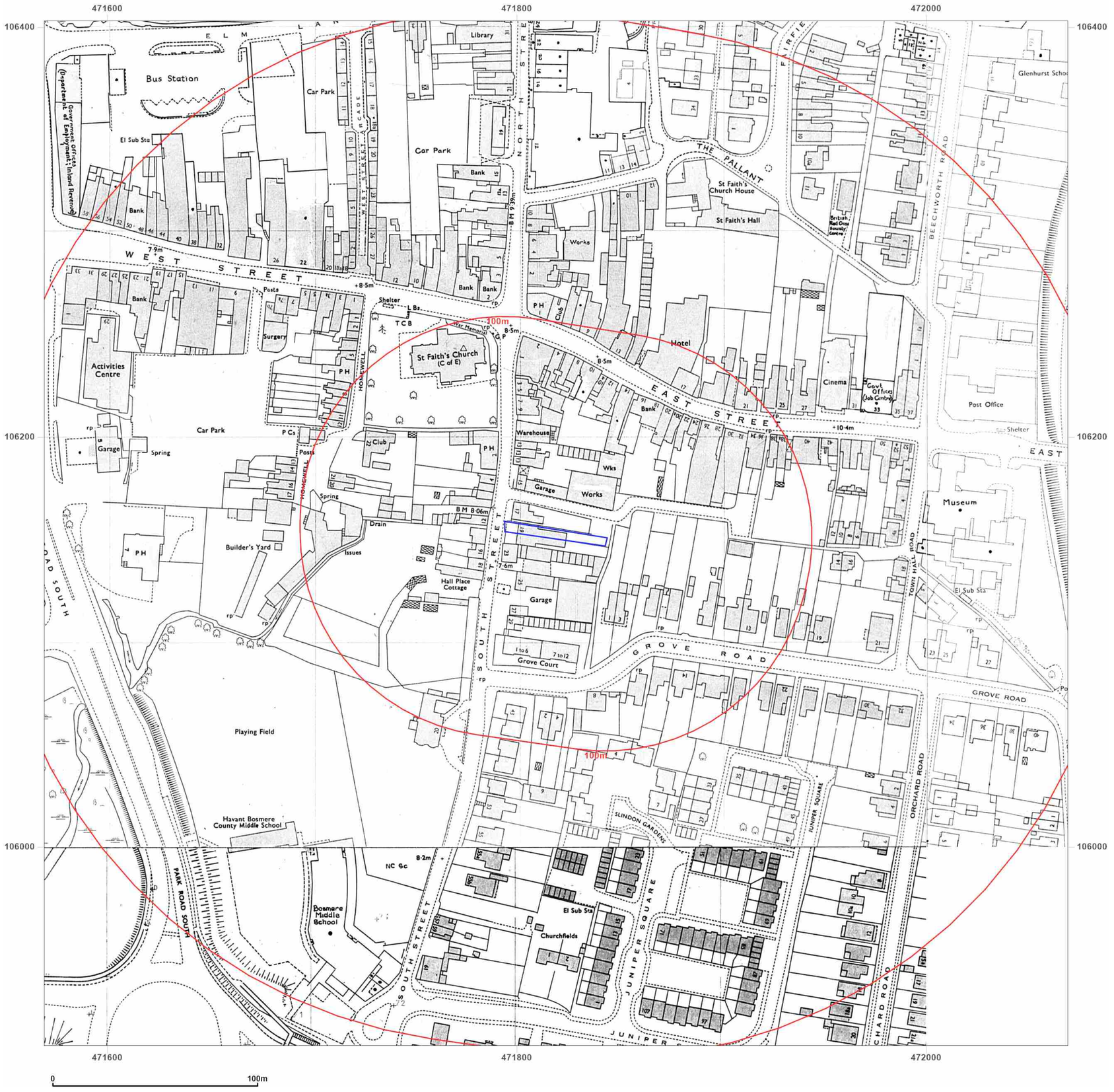
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Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: National Grid

Map date: **1981-1986**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1957 Revised 1981 Edition N/A Copyright 1981 Levelled 1957		Surveyed 1958 Revised 1986 Edition N/A Copyright 1986 Levelled 1958
Surveyed 1957 Revised 1986 Edition N/A Copyright 1986 Levelled 1957		

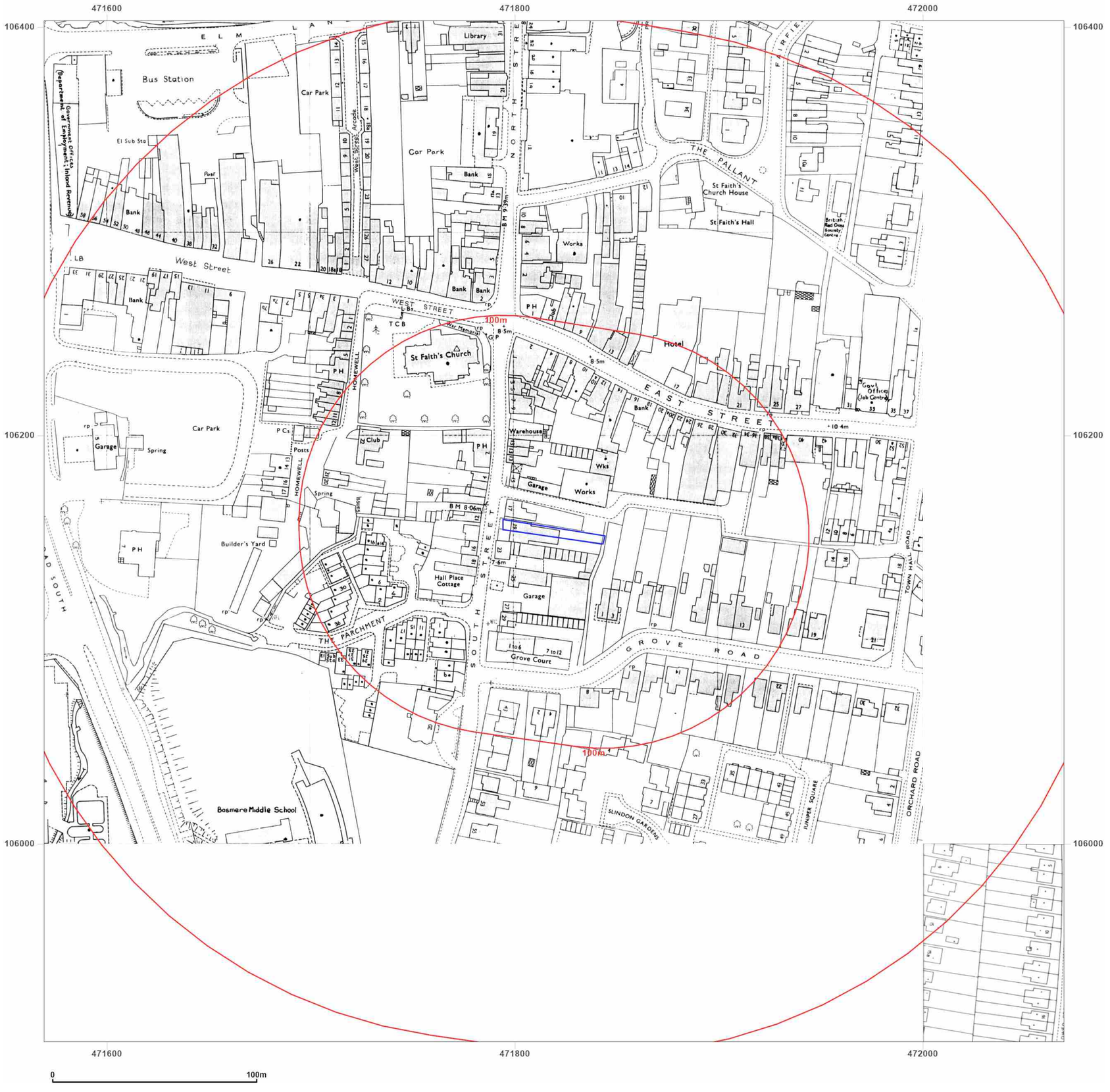
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PO9 1BU

Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:1,250

Printed at: 1:2,000

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	Surveyed 1993 Revised 1993 Edition N/A Copyright N/A Levelled N/A

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Client Ref: CL-3344-SS
Report Ref: GS-8857962
Grid Ref: 471819, 106153

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

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2003

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Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

19, SOUTH STREET, HAVANT, PO9 1BU

Order Details

Date: 27/06/2022

Your ref: CL-3344-SS

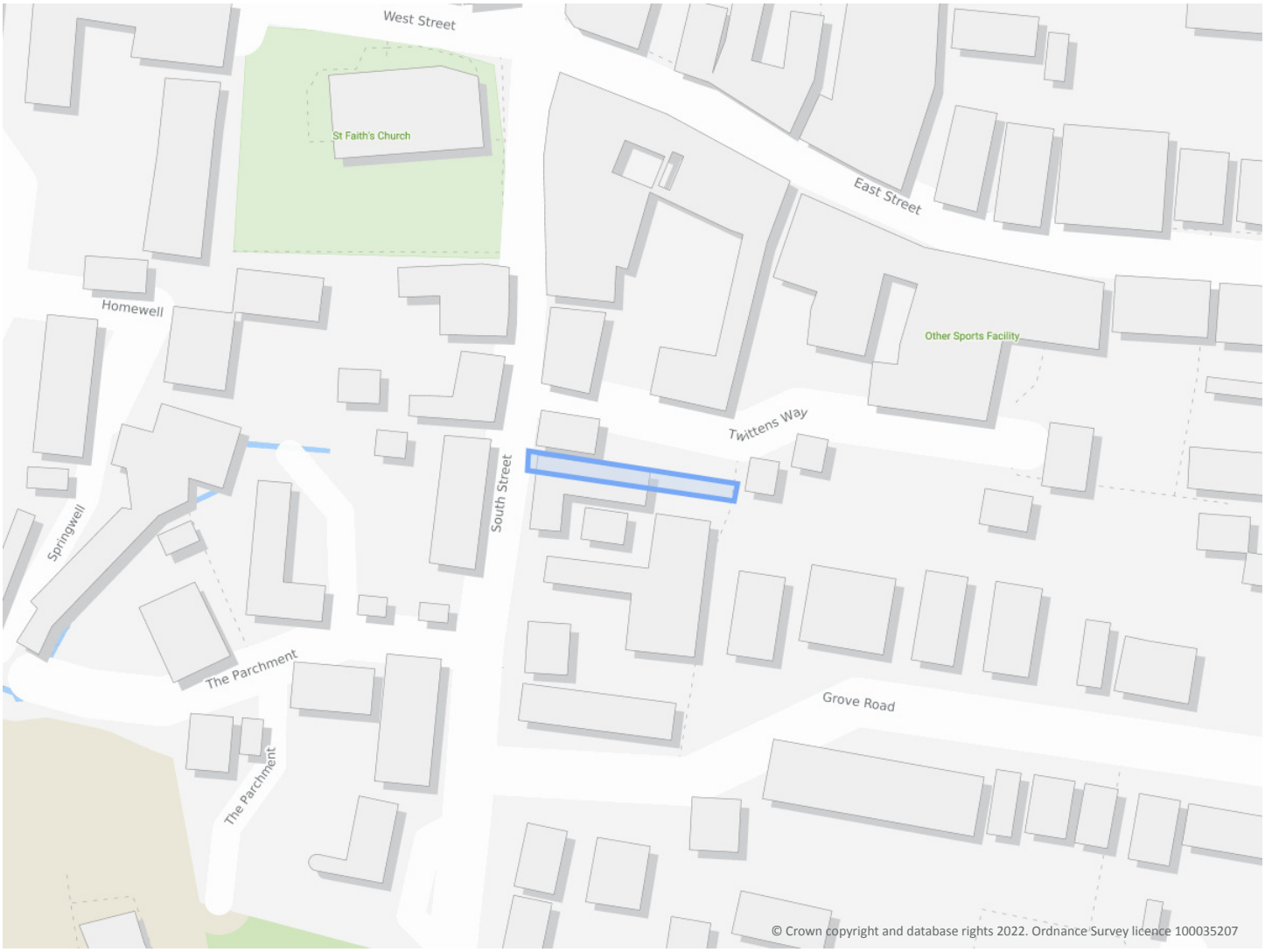
Our Ref: GS-8857963

Site Details

Location: 471816 106151

Area: 0.02 ha

Authority: Havant Borough Council



Summary of findings p. 2

OS MasterMap site plan p.13

Aerial image p. 8

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Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	Historical industrial land uses	0	2	23	117	-
20	1.2	Historical tanks	0	0	0	13	-
21	1.3	Historical energy features	0	0	6	28	-
22	1.4	Historical petrol stations	0	0	0	0	-
22	1.5	Historical garages	0	6	7	2	-
23	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
24	2.1	Historical industrial land uses	0	2	32	149	-
31	2.2	Historical tanks	0	0	0	19	-
32	2.3	Historical energy features	0	0	18	64	-
35	2.4	Historical petrol stations	0	0	0	0	-
36	2.5	Historical garages	0	13	12	3	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
38	3.1	Active or recent landfill	0	0	0	0	-
38	3.2	Historical landfill (BGS records)	0	0	0	0	-
39	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
39	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
39	3.5	Historical waste sites	0	0	0	0	-
39	3.6	Licensed waste sites	0	0	0	0	-
39	3.7	Waste exemptions	0	0	6	5	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
41	4.1	Recent industrial land uses	0	2	11	-	-
42	4.2	Current or recent petrol stations	0	0	1	0	-
43	4.3	Electricity cables	0	0	0	0	-
43	4.4	Gas pipelines	0	0	0	0	-
43	4.5	Sites determined as Contaminated Land	0	0	0	0	-

43	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
43	4.7	Regulated explosive sites	0	0	0	0	-
44	4.8	Hazardous substance storage/usage	0	0	0	0	-
44	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
44	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
44	**4.11**	**Licensed pollutant release (Part A(2)/B)**	0	1	1	1	-
45	4.12	Radioactive Substance Authorisations	0	0	0	0	-
45	**4.13**	**Licensed Discharges to controlled waters**	0	0	0	4	-
46	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
46	4.15	Pollutant release to public sewer	0	0	0	0	-
46	4.16	List 1 Dangerous Substances	0	0	0	0	-
46	4.17	List 2 Dangerous Substances	0	0	0	0	-
47	**4.18**	**Pollution Incidents (EA/NRW)**	0	0	0	3	-
47	4.19	Pollution inventory substances	0	0	0	0	-
47	4.20	Pollution inventory waste transfers	0	0	0	0	-
48	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
49	**5.1**	**Superficial aquifer**	Identified (within 500m)				
50	**5.2**	**Bedrock aquifer**	Identified (within 500m)				
52	**5.3**	**Groundwater vulnerability**	Identified (within 50m)				
53	**5.4**	**Groundwater vulnerability- soluble rock risk**	Identified (within 0m)				
53	5.5	Groundwater vulnerability- local information	None (within 0m)				
54	**5.6**	**Groundwater abstractions**	0	0	0	0	3
55	5.7	Surface water abstractions	0	0	0	0	0
56	**5.8**	**Potable abstractions**	0	0	0	0	3
56	**5.9**	**Source Protection Zones**	1	0	0	0	-
57	**5.10**	**Source Protection Zones (confined aquifer)**	0	0	1	0	-

Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
58	**6.1**	**Water Network (OS MasterMap)**	0	1	4	-	-

59	6.2	Surface water features	0	1	2	-	-
59	6.3	WFD Surface water body catchments	1	-	-	-	-
60	6.4	WFD Surface water bodies	0	0	0	-	-
60	6.5	WFD Groundwater bodies	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
61	7.1	Risk of flooding from rivers and the sea	Medium (within 50m)				
62	7.2	Historical Flood Events	0	0	1	-	-
62	7.3	Flood Defences	0	0	0	-	-
62	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
63	7.5	Flood Storage Areas	0	0	0	-	-
64	7.6	Flood Zone 2	Identified (within 50m)				
65	7.7	Flood Zone 3	Identified (within 50m)				
Page	Section	Surface water flooding					
66	8.1	Surface water flooding	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
68	9.1	Groundwater flooding	High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
69	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	3
70	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	2
71	10.3	Special Areas of Conservation (SAC)	0	0	0	0	1
71	10.4	Special Protection Areas (SPA)	0	0	0	0	4
73	10.5	National Nature Reserves (NNR)	0	0	0	0	0
73	10.6	Local Nature Reserves (LNR)	0	0	0	0	2
73	10.7	Designated Ancient Woodland	0	0	0	0	0
73	10.8	Biosphere Reserves	0	0	0	0	0
74	10.9	Forest Parks	0	0	0	0	0
74	10.10	Marine Conservation Zones	0	0	0	0	0
74	10.11	Green Belt	0	0	0	0	0
74	10.12	Proposed Ramsar sites	0	0	0	0	0

74	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
75	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
75	10.15	Nitrate Sensitive Areas	0	0	0	0	0
75	**10.16**	**Nitrate Vulnerable Zones**	1	0	1	0	3
76	**10.17**	**SSSI Impact Risk Zones**	1	-	-	-	-
77	**10.18**	**SSSI Units**	0	0	0	0	6
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
81	11.1	World Heritage Sites	0	0	0	-	-
82	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
82	11.3	National Parks	0	0	0	-	-
82	**11.4**	**Listed Buildings**	0	5	32	-	-
84	**11.5**	**Conservation Areas**	1	0	1	-	-
84	11.6	Scheduled Ancient Monuments	0	0	0	-	-
85	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
86	**12.1**	**Agricultural Land Classification**	Urban (within 250m)				
87	12.2	Open Access Land	0	0	0	-	-
87	**12.3**	**Tree Felling Licences**	0	0	1	-	-
87	12.4	Environmental Stewardship Schemes	0	0	0	-	-
87	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
88	13.1	Priority Habitat Inventory	0	0	0	-	-
88	13.2	Habitat Networks	0	0	0	-	-
88	13.3	Open Mosaic Habitat	0	0	0	-	-
88	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
89	**14.1**	**10k Availability**	Identified (within 500m)				
90	**14.2**	**Artificial and made ground (10k)**	0	0	0	1	-
91	**14.3**	**Superficial geology (10k)**	2	0	2	5	-

92	14.4	Landslip (10k)	0	0	0	0	-
93	**14.5**	**Bedrock geology (10k)**	1	1	1	1	-
94	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
95	**15.1**	**50k Availability**	Identified (within 500m)				
96	**15.2**	**Artificial and made ground (50k)**	0	0	1	0	-
97	15.3	Artificial ground permeability (50k)	0	0	-	-	-
98	**15.4**	**Superficial geology (50k)**	2	0	2	4	-
99	**15.5**	**Superficial permeability (50k)**	Identified (within 50m)				
99	15.6	Landslip (50k)	0	0	0	0	-
99	15.7	Landslip permeability (50k)	None (within 50m)				
100	**15.8**	**Bedrock geology (50k)**	1	1	1	1	-
101	**15.9**	**Bedrock permeability (50k)**	Identified (within 50m)				
101	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
102	**16.1**	**BGS Boreholes**	0	0	13	-	-
Page	Section	Natural ground subsidence					
104	**17.1**	**Shrink swell clays**	Low (within 50m)				
105	**17.2**	**Running sands**	Low (within 50m)				
107	**17.3**	**Compressible deposits**	Negligible (within 50m)				
108	**17.4**	**Collapsible deposits**	Low (within 50m)				
109	**17.5**	**Landslides**	Very low (within 50m)				
110	**17.6**	**Ground dissolution of soluble rocks**	Low (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
112	18.1	Natural cavities	0	0	0	0	-
113	18.2	BritPits	0	0	0	0	-
113	**18.3**	**Surface ground workings**	0	0	28	-	-
114	18.4	Underground workings	0	0	0	0	0
114	18.5	Historical Mineral Planning Areas	0	0	0	0	-

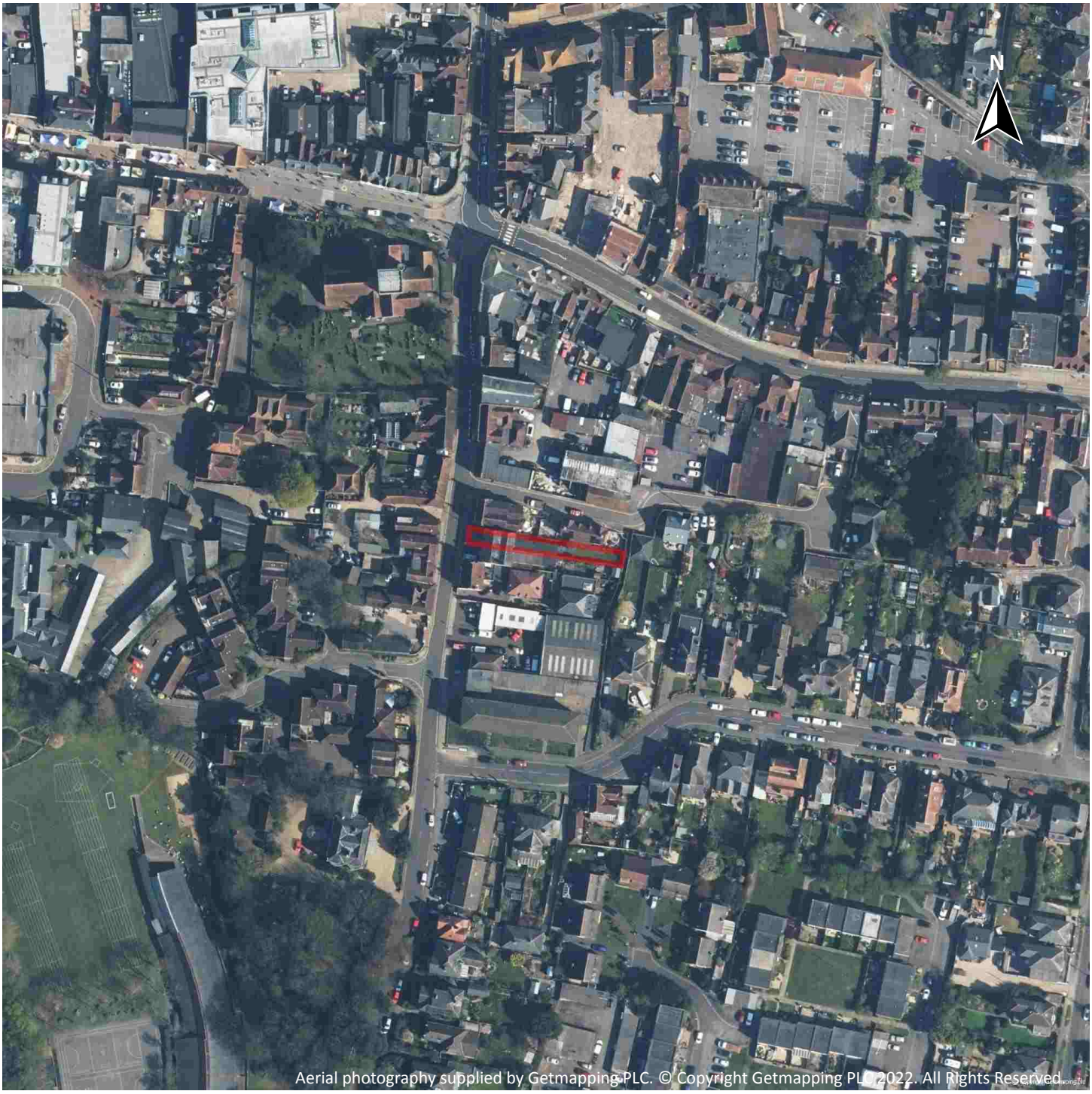
115	**18.6**	**Non-coal mining**	0	0	0	0	1
115	18.7	Mining cavities	0	0	0	0	0
115	18.8	JPB mining areas	None (within 0m)				
115	18.9	Coal mining	None (within 0m)				
116	18.10	Brine areas	None (within 0m)				
116	18.11	Gypsum areas	None (within 0m)				
116	18.12	Tin mining	None (within 0m)				
116	18.13	Clay mining	None (within 0m)				

Page	Section	Radon	
117	**19.1**	**Radon**	Between 3% and 5% (within 0m)

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

Recent aerial photograph



Capture Date: 20/04/2021

Site Area: 0.02ha

Recent site history - 2018 aerial photograph



Capture Date: 26/06/2018

Site Area: 0.02ha

Recent site history - 2013 aerial photograph

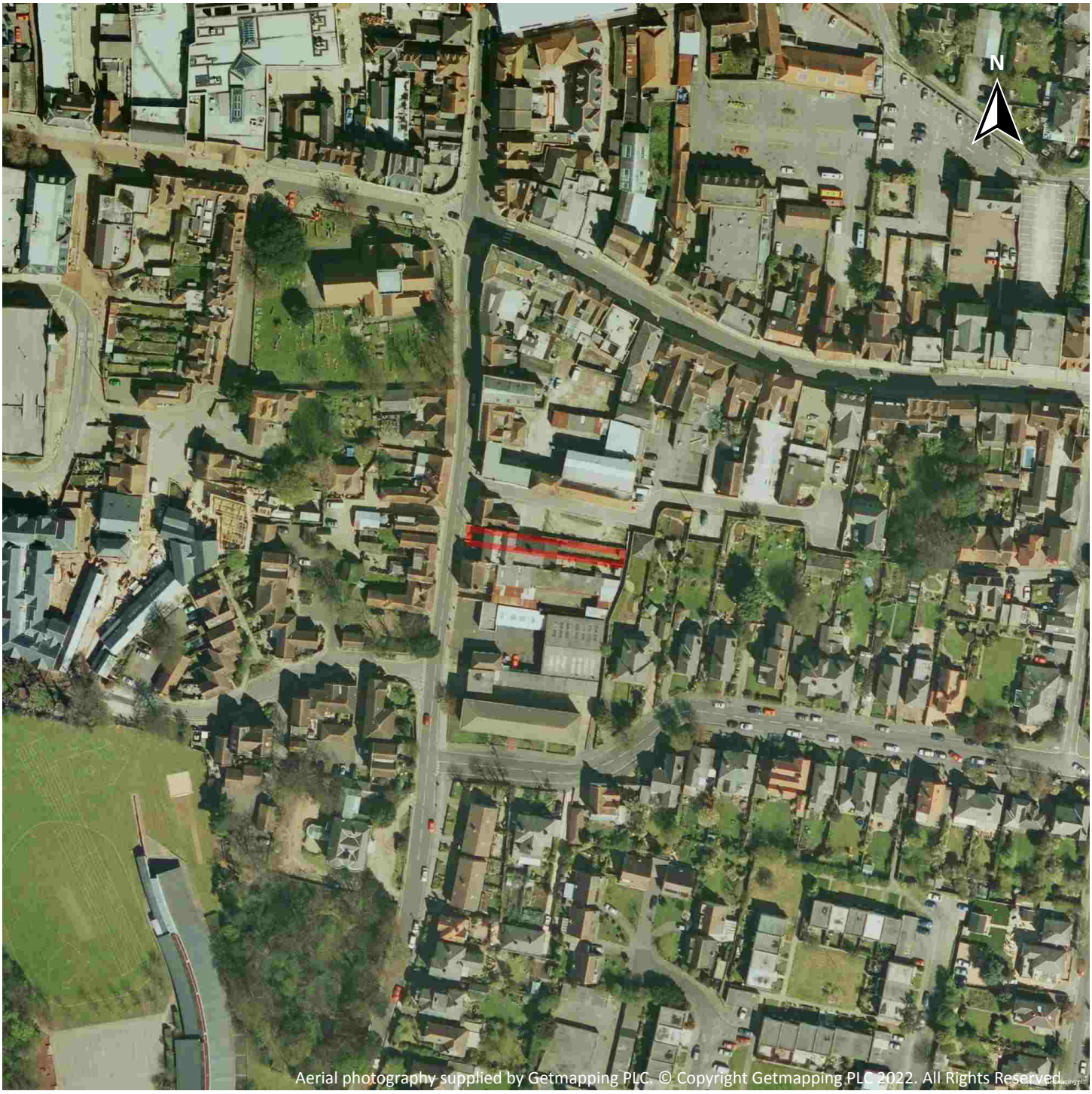


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Capture Date: 20/08/2013

Site Area: 0.02ha

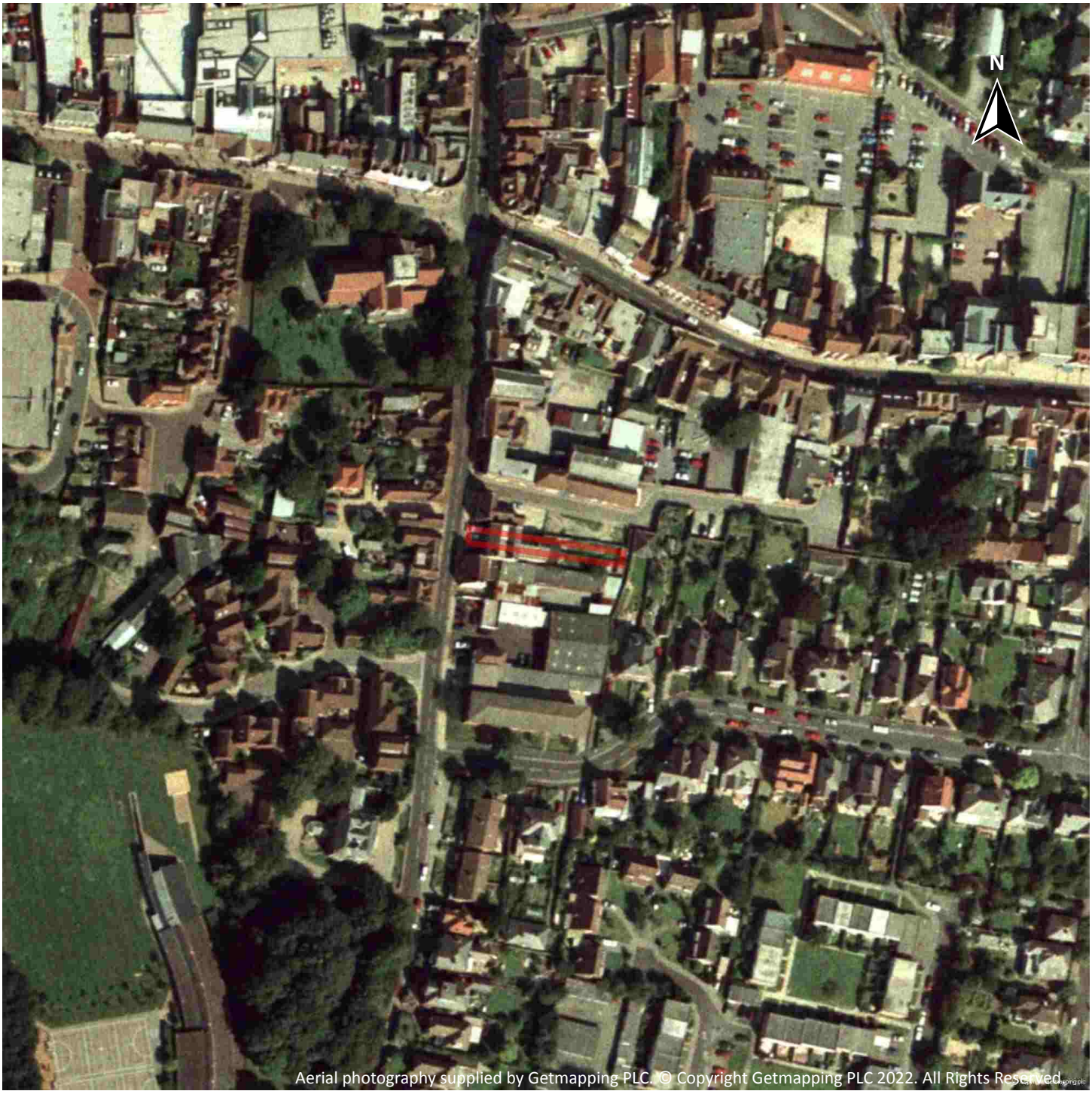
Recent site history - 2005 aerial photograph



Capture Date: 16/05/2005

Site Area: 0.02ha

Recent site history - 1999 aerial photograph



Capture Date: 04/09/1999

Site Area: 0.02ha

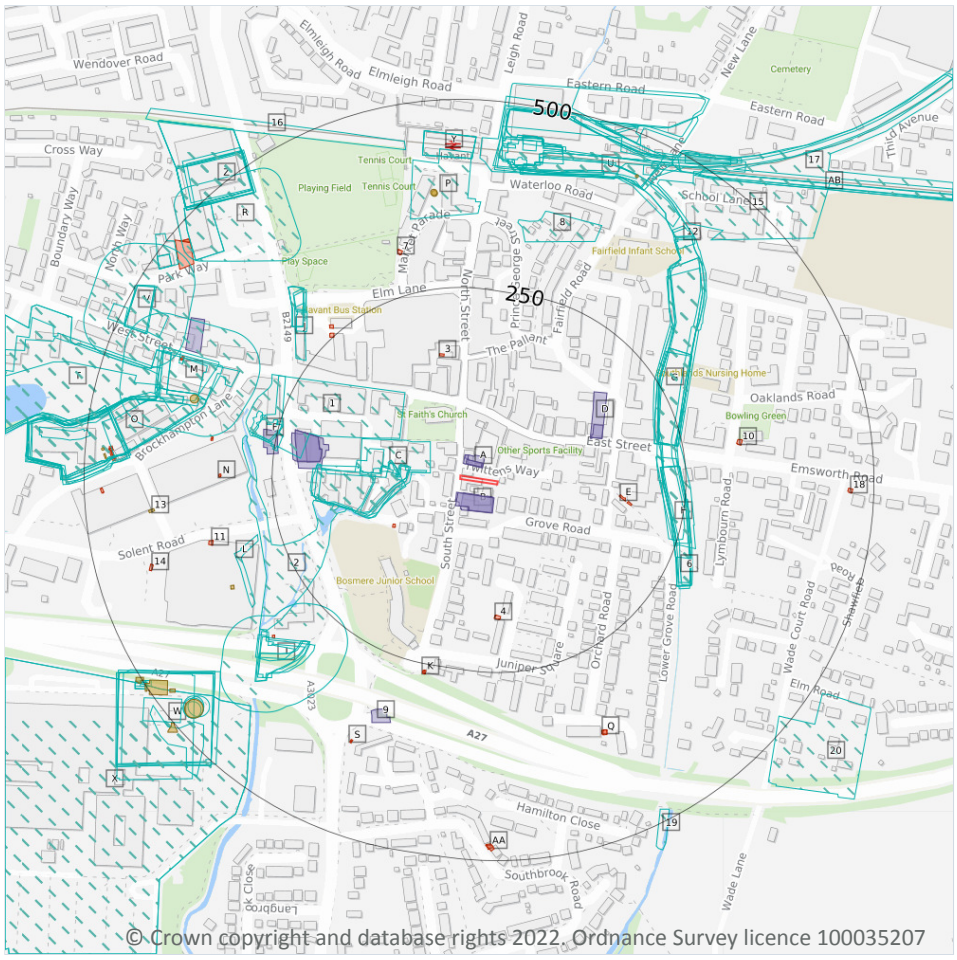
OS MasterMap site plan



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Site Area: 0.02ha

1 Past land use



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	142

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
C	40m W	Parchment Works	1896	1901334

ID	Location	Land use	Dates present	Group ID
C	46m W	Parchment Works	1896	1906895
C	67m W	Parchment Works	1914 - 1932	1920643
C	69m W	Parchment Works	1907	1885216
C	73m W	Parchment Works	1898	1887359
C	77m W	Parchment Works	1866	1927167
1	94m NW	Flour Mills	1907	1921542
2	156m W	Water Works	1866	1875244
G	212m E	Cuttings	1896	1936295
H	213m E	Cuttings	1942 - 1991	1952665
G	214m E	Cuttings	1963	1899073
G	214m E	Cuttings	1973 - 1991	1932574
H	217m E	Cuttings	1931	1912496
H	217m E	Cuttings	1907	1954387
H	217m E	Cuttings	1931	1905375
G	218m E	Cuttings	1931	1905940
G	219m E	Cuttings	1896 - 1898	1886021
G	220m E	Cuttings	1942	1891819
G	220m E	Cuttings	1907	1938606
G	220m E	Cuttings	1914	1922385
5	221m E	Cuttings	1932	1967853
F	242m W	Flour Mills	1914	1963548
I	244m SW	Unspecified Mill	1932	1887863
F	245m W	Flour Mills	1896	1963887
F	246m W	Flour Mills	1898	1889858
J	256m NW	Bus Station	1991	1864801
6	257m E	Cuttings	1931	1916101
L	279m W	Watercress Beds	1931	1875302
J	280m NW	Fire Engine Station	1896 - 1898	1966818

ID	Location	Land use	Dates present	Group ID
J	288m NW	Fire Station	1932	1874269
J	288m NW	Fire Engine Station	1896	1901052
J	288m NW	Fire Engine Station	1914	1910354
I	293m SW	Unspecified Mill	1896 - 1898	1948407
I	295m SW	Unspecified Mill	1914 - 1931	1967660
I	296m SW	Unspecified Mill	1931	1901720
M	296m NW	Parchment Works	1914	1950188
I	297m SW	Unspecified Mill	1907	1893882
J	298m NW	Fire Engine Station	1907	1893350
J	302m NW	Fire Engine Station	1931	1955984
I	304m SW	Corn Mill	1866	1861879
I	315m SW	Unspecified Mill	1963	1888105
8	320m N	Cattle Market	1931	1905188
O	324m NW	Unspecified Works	1963	1943702
P	345m N	Cattle Market	1898	1915035
M	346m NW	Parchment Works	1898 - 1907	1942974
O	352m W	Leather Works	1942	1897063
O	352m W	Leather Works	1931	1965004
M	353m NW	Unspecified Works	1896	1958908
M	365m W	Parchment Works	1896	1921237
O	365m W	Leather Works	1931	1890729
R	366m NW	Isolation Hospital	1931	1967761
T	382m W	Water Works	1973	1920800
T	382m W	Water Works	1991	1946345
12	392m NE	Cuttings	1932	1893274
U	401m NE	Railway Sidings	1907 - 1938	1893758
U	401m NE	Railway Sidings	1895	1923380
U	406m N	Railway Sidings	1963	1957767

ID	Location	Land use	Dates present	Group ID
U	408m N	Railway Station	1866	1900541
U	408m N	Railway Sidings	1866	1937106
V	408m NW	Unspecified Workhouse	1896	1933376
W	409m SW	Sewage Works	1932	1951118
U	409m N	Railway Sidings	1914	1944675
U	410m N	Railway Sidings	1931	1905193
U	410m N	Railway Sidings	1931	1953015
X	410m SW	Unspecified Commercial/Industrial	1991	1917354
X	410m SW	Unspecified Works	1973	1927953
U	412m N	Railway Sidings	1932	1965945
U	414m N	Railway Sidings	1896	1891333
U	414m N	Railway Sidings	1898	1896289
W	414m SW	Sewage Works	1931	1908119
T	415m W	Water Works	1896	1929475
U	416m N	Railway Station	1931	1953837
W	416m SW	Sewage Works	1931	1942128
W	416m SW	Sewage Works	1942	1956073
T	417m W	Unspecified Works	1963	1903729
T	417m W	Water Works	1866	1900842
W	418m SW	Unspecified Works	1963	1911144
U	418m N	Railway Station	1895 - 1896	1910055
U	418m N	Railway Station	1907 - 1938	1924464
U	419m N	Railway Station	1898	1935840
Y	422m N	Railway Station	1973	1895031
Y	422m N	Railway Station	1991	1957959
Y	422m N	Railway Station	1963	1961371
O	426m W	Leather Works	1932	1902146
15	427m NE	Gas Works	1895	1862716

ID	Location	Land use	Dates present	Group ID
R	433m NW	Hospital	1991	1910989
R	433m NW	Hospital	1973	1951034
O	439m W	Leather Works	1896	1895634
W	439m SW	Sewage Works	1907 - 1914	1921321
16	439m N	Cuttings	1866	1882778
O	440m W	Leather Works	1898	1902030
U	440m N	Railway Building	1866	1867021
U	440m N	Goods Station	1866	1872042
V	440m NW	Unspecified Workhouse	1907	1965443
O	443m W	Washing Factory	1866	1872043
17	445m N	Railway Sidings	1931	1911038
U	445m N	Railway Sidings	1895	1936439
U	445m N	Railway Sidings	1898 - 1938	1942468
O	445m W	Leather Works	1907	1936675
W	446m SW	Unspecified Tank	1932	1907305
U	447m N	Railway Sidings	1931	1931036
U	449m N	Railway Building	1963	1867020
U	451m NE	Railway Building	1963	1941887
W	452m SW	Unspecified Tank	1931	1897815
W	454m SW	Unspecified Tank	1942	1960563
V	457m NW	Union Workhouse	1898	1876398
W	459m SW	Unspecified Tank	1963	1901336
V	459m NW	Unspecified Workhouse	1866	1965601
O	460m W	Leather Works	1914	1919205
U	464m NE	Railway Building	1896	1909414
Z	465m NW	Infectious Diseases Hospital	1898	1908496
Z	465m NW	Isolation Hospital	1931	1902356
Z	465m NW	Infectious Diseases Hospital	1914	1906823

ID	Location	Land use	Dates present	Group ID
Z	465m NW	Isolation Hospital	1932	1929138
R	469m NW	Fire Station	1963	1938009
Z	470m NW	Hospital	1938	1898838
Z	470m NW	Hospital	1931	1911009
Z	470m NW	Infectious Diseases Hospital	1895	1945181
Z	470m NW	Hospital	1907	1946050
Z	472m NW	Infectious Diseases Hospital	1896	1908741
W	472m SW	Filter Beds	1907	1865153
W	472m SW	Unspecified Ground Workings	1973	1853352
R	474m NW	Fire Station	1991	1922610
R	474m NW	Fire Station	1973	1939992
19	483m SE	Railway Sidings	1866	1883167
AB	484m NE	Railway Sidings	1914	1893335
20	485m SE	Nursery	1896 - 1898	1904865
U	486m NE	Timber Yard	1896	1939589
AB	486m NE	Railway Sidings	1931	1892004
U	486m N	Timber Yard	1898	1932977
U	488m N	Timber Yard	1914	1933813
U	490m N	Timber Yard	1907	1951199
V	490m NW	Unspecified Workhouse	1914	1940037
W	490m SW	Engine House	1932	1947186
U	491m NE	Railway Sidings	1898	1922835
U	491m NE	Railway Sidings	1898	1944428
O	495m W	Railway Sidings	1907 - 1914	1926373
U	496m N	Timber Yard	1895	1967464
W	496m SW	Engine House	1931	1908129
W	497m SW	Engine House	1931	1938487
W	497m SW	Engine House	1942	1939713

ID	Location	Land use	Dates present	Group ID
W	497m SW	Engine House	1907	1953374

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**13**

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

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

ID	Location	Land use	Dates present	Group ID
L	332m SW	Unspecified Tank	1973 - 1989	317697
M	362m W	Unspecified Tank	1932	308643
P	373m N	Unspecified Tank	1971 - 1973	317380
P	374m N	Unspecified Tank	1978	328273
13	408m W	Unspecified Tank	1997	308640
U	444m NE	Unspecified Tank	1952 - 1963	314735
W	455m SW	Unspecified Tank	1952 - 1968	320429
W	470m SW	Unspecified Tank	1952	308529
O	471m W	Tanks	1969	311360
W	472m SW	Tanks	1952	311398
O	475m W	Unspecified Tank	1897	308641
W	497m SW	Tanks	1952	311396
W	500m SW	Tanks	1952 - 1968	314006

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	34

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

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

ID	Location	Land use	Dates present	Group ID
C	105m SW	Electricity Substation	1988 - 1996	212169
3	160m N	Electricity Substation	1996	191134
E	163m E	Electricity Substation	1971	191133
4	174m S	Electricity Substation	1968 - 1996	208920
E	174m E	Electricity Substation	1986	191132
J	249m NW	Electricity Substation	1981 - 1996	203068
K	258m S	Electricity Substation	1968 - 1996	212310
J	258m NW	Electricity Substation	1973	191135
K	259m S	Electricity Substation	1984	210390
7	304m N	Electricity Substation	1973 - 1996	198371
N	318m W	Electricity Substation	1989 - 1997	197285
10	321m E	Electricity Substation	1971 - 1993	200438
I	322m SW	Electricity Substation	1993 - 1996	199980
N	332m W	Electricity Substation	1997	191136
N	332m W	Electricity Substation	1989	191137
11	338m W	Electricity Substation	1973 - 1989	196811
Q	355m SE	Electricity Substation	1968 - 1972	201360
Q	355m SE	Electricity Substation	1968 - 1996	209732
S	375m SW	Gas Governor	1993 - 1996	196841
S	377m S	Gas Governor	1986	208277
M	398m NW	Electricity Substation	1969 - 1989	211802

ID	Location	Land use	Dates present	Group ID
M	399m NW	Electricity Substation	1997	203814
14	424m W	Electricity Substation	1969 - 1989	195299
R	453m NW	Electricity Substation	1997	192316
O	458m W	Electricity Substation	1997	192636
O	459m W	Electricity Substation	1989	207000
O	463m W	Electricity Substation	1969	192693
O	463m W	Electricity Substation	1973	193725
18	465m E	Electricity Substation	1971 - 1993	211161
O	474m W	Electricity Substation	1973 - 1997	205252
R	474m NW	Electricity Substation	1973	194202
R	475m NW	Electricity Substation	1989	192857
AA	478m S	Electricity Substation	1968 - 1996	200845
AA	479m S	Electricity Substation	1968 - 1972	203011

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	15

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
A	15m N	Garage	1981 - 1988	63721
A	15m N	Garage	1973	61474
A	16m N	Garage	1996	62684
B	17m S	Garage	1965 - 1996	64279
B	18m S	Garage	1960	64881
B	18m S	Garage	1981 - 1988	64895
D	136m NE	Garage	1960 - 1973	64491
D	137m NE	Garage	1960	62310
F	178m W	Garage	1981 - 1988	64068
F	187m W	Garage	1960	62699
F	187m W	Garage	1960	61408
F	187m W	Garage	1965 - 1973	64424
F	244m W	Garage	1965	60926
9	321m S	Garage	1959	60938
M	382m NW	Garage	1989 - 1997	64773

This data is sourced from Ordnance Survey / Groundsure.

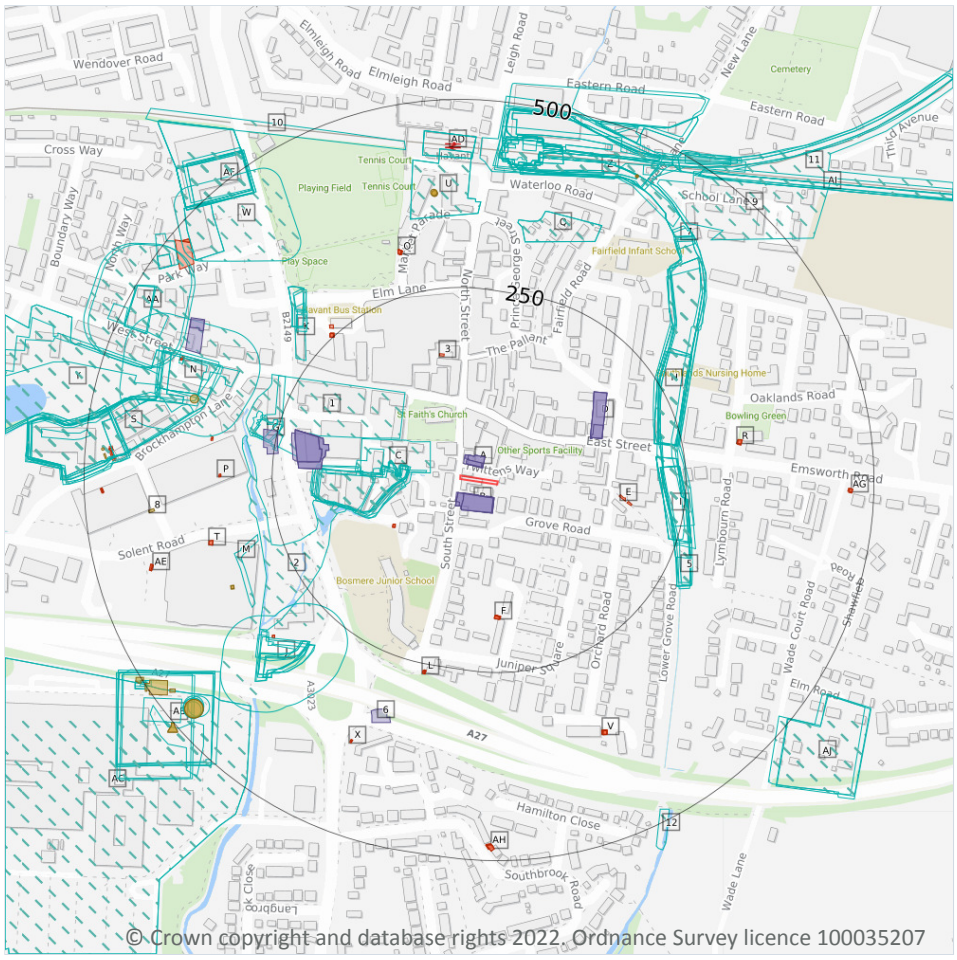
1.6 Historical military land

Records within 500m	**0**

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

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

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

2.1 Historical industrial land uses

Records within 500m	183

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 24**

ID	Location	Land Use	Date	Group ID
C	40m W	Parchment Works	1896	1901334
C	46m W	Parchment Works	1896	1906895
C	67m W	Parchment Works	1932	1920643

ID	Location	Land Use	Date	Group ID
C	69m W	Parchment Works	1914	1920643
C	69m W	Parchment Works	1907	1885216
C	70m W	Parchment Works	1931	1920643
C	70m W	Parchment Works	1931	1920643
C	73m W	Parchment Works	1898	1887359
C	77m W	Parchment Works	1866	1927167
1	94m NW	Flour Mills	1907	1921542
2	156m W	Water Works	1866	1875244
H	212m E	Cuttings	1896	1936295
I	213m E	Cuttings	1991	1952665
I	213m E	Cuttings	1973	1952665
I	213m E	Cuttings	1963	1952665
H	214m E	Cuttings	1991	1932574
H	214m E	Cuttings	1973	1932574
H	214m E	Cuttings	1963	1899073
I	217m E	Cuttings	1942	1952665
I	217m E	Cuttings	1931	1912496
I	217m E	Cuttings	1907	1954387
I	217m E	Cuttings	1931	1905375
H	218m E	Cuttings	1931	1905940
H	219m E	Cuttings	1898	1886021
H	220m E	Cuttings	1896	1886021
H	220m E	Cuttings	1942	1891819
H	220m E	Cuttings	1931	1905940
H	220m E	Cuttings	1907	1938606
H	220m E	Cuttings	1914	1922385
4	221m E	Cuttings	1932	1967853
G	242m W	Flour Mills	1914	1963548

ID	Location	Land Use	Date	Group ID
J	244m SW	Unspecified Mill	1932	1887863
G	245m W	Flour Mills	1896	1963887
G	246m W	Flour Mills	1898	1889858
G	254m W	Flour Mills	1896	1963887
K	256m NW	Bus Station	1991	1864801
5	257m E	Cuttings	1931	1916101
M	279m W	Watercress Beds	1931	1875302
K	280m NW	Fire Engine Station	1898	1966818
K	283m NW	Fire Engine Station	1896	1966818
K	288m NW	Fire Engine Station	1914	1910354
K	288m NW	Fire Station	1932	1874269
K	288m NW	Fire Engine Station	1896	1901052
J	293m SW	Unspecified Mill	1896	1948407
J	294m SW	Unspecified Mill	1898	1948407
J	295m SW	Unspecified Mill	1914	1967660
J	295m SW	Unspecified Mill	1896	1948407
J	296m SW	Unspecified Mill	1931	1901720
N	296m NW	Parchment Works	1914	1950188
J	296m SW	Unspecified Mill	1931	1967660
J	297m SW	Unspecified Mill	1907	1893882
K	298m NW	Fire Engine Station	1907	1893350
K	302m NW	Fire Engine Station	1931	1955984
J	304m SW	Corn Mill	1866	1861879
J	315m SW	Unspecified Mill	1963	1888105
Q	320m N	Cattle Market	1931	1905188
Q	320m N	Cattle Market	1931	1905188
S	324m NW	Unspecified Works	1963	1943702
U	345m N	Cattle Market	1898	1915035

ID	Location	Land Use	Date	Group ID
U	345m N	Cattle Market	1898	1915035
N	346m NW	Parchment Works	1898	1942974
N	350m W	Parchment Works	1907	1942974
S	352m W	Leather Works	1942	1897063
S	352m W	Leather Works	1931	1965004
N	353m NW	Unspecified Works	1896	1958908
N	365m W	Parchment Works	1896	1921237
S	365m W	Leather Works	1931	1890729
W	366m NW	Isolation Hospital	1931	1967761
Y	382m W	Water Works	1991	1946345
Y	382m W	Water Works	1973	1920800
7	392m NE	Cuttings	1932	1893274
Z	401m NE	Railway Sidings	1938	1893758
Z	401m NE	Railway Sidings	1931	1893758
Z	401m NE	Railway Sidings	1907	1893758
Z	401m NE	Railway Sidings	1895	1923380
Z	406m N	Railway Sidings	1963	1957767
Z	408m N	Railway Station	1866	1900541
Z	408m N	Railway Sidings	1866	1937106
AA	408m NW	Unspecified Workhouse	1896	1933376
AB	409m SW	Sewage Works	1932	1951118
Z	409m N	Railway Sidings	1914	1944675
Z	410m N	Railway Sidings	1931	1905193
Z	410m N	Railway Sidings	1931	1953015
AC	410m SW	Unspecified Commercial/Industrial	1991	1917354
AC	410m SW	Unspecified Works	1973	1927953
Z	412m N	Railway Sidings	1932	1965945
AA	413m NW	Unspecified Workhouse	1896	1933376

ID	Location	Land Use	Date	Group ID
Z	414m N	Railway Sidings	1898	1896289
Z	414m N	Railway Sidings	1898	1896289
Z	414m N	Railway Sidings	1896	1891333
AB	414m SW	Sewage Works	1931	1908119
Y	415m W	Water Works	1896	1929475
Z	416m N	Railway Station	1931	1953837
Z	416m N	Railway Station	1931	1953837
AB	416m SW	Sewage Works	1942	1956073
AB	416m SW	Sewage Works	1931	1942128
Y	417m W	Unspecified Works	1963	1903729
Y	417m W	Water Works	1866	1900842
AB	418m SW	Unspecified Works	1963	1911144
Z	418m N	Railway Station	1938	1924464
Z	418m N	Railway Station	1931	1924464
Z	418m N	Railway Station	1907	1924464
Z	418m N	Railway Station	1895	1910055
Z	419m N	Railway Station	1898	1935840
Z	419m N	Railway Station	1898	1935840
Z	420m N	Railway Station	1914	1924464
Z	420m N	Railway Station	1932	1924464
Z	420m N	Railway Station	1896	1910055
AD	422m N	Railway Station	1991	1957959
AD	422m N	Railway Station	1973	1895031
AD	422m N	Railway Station	1963	1961371
S	426m W	Leather Works	1932	1902146
9	427m NE	Gas Works	1895	1862716
W	433m NW	Hospital	1991	1910989
W	433m NW	Hospital	1973	1951034

ID	Location	Land Use	Date	Group ID
S	439m W	Leather Works	1896	1895634
AB	439m SW	Sewage Works	1914	1921321
10	439m N	Cuttings	1866	1882778
S	440m W	Leather Works	1898	1902030
Z	440m N	Railway Building	1866	1867021
Z	440m N	Goods Station	1866	1872042
AA	440m NW	Unspecified Workhouse	1907	1965443
AB	441m SW	Sewage Works	1907	1921321
S	443m W	Washing Factory	1866	1872043
11	445m N	Railway Sidings	1931	1911038
Z	445m N	Railway Sidings	1938	1942468
Z	445m N	Railway Sidings	1907	1942468
Z	445m N	Railway Sidings	1895	1936439
S	445m W	Leather Works	1907	1936675
AB	446m SW	Unspecified Tank	1932	1907305
Z	447m N	Railway Sidings	1931	1931036
Z	447m N	Railway Sidings	1931	1931036
Z	449m N	Railway Building	1963	1867020
Z	450m N	Railway Sidings	1898	1942468
Z	450m N	Railway Sidings	1898	1942468
Z	451m NE	Railway Building	1963	1941887
AB	452m SW	Unspecified Tank	1931	1897815
AB	454m SW	Unspecified Tank	1942	1960563
AB	454m SW	Unspecified Tank	1931	1897815
AA	457m NW	Union Workhouse	1898	1876398
AB	459m SW	Unspecified Tank	1963	1901336
AA	459m NW	Unspecified Workhouse	1866	1965601
S	460m W	Leather Works	1914	1919205

ID	Location	Land Use	Date	Group ID
S	460m W	Leather Works	1896	1895634
Z	464m NE	Railway Building	1896	1909414
AF	465m NW	Infectious Diseases Hospital	1898	1908496
AF	465m NW	Infectious Diseases Hospital	1898	1908496
AF	465m NW	Isolation Hospital	1931	1902356
AF	465m NW	Isolation Hospital	1931	1902356
AF	465m NW	Infectious Diseases Hospital	1914	1906823
AF	465m NW	Isolation Hospital	1932	1929138
W	469m NW	Fire Station	1963	1938009
AF	470m NW	Hospital	1938	1898838
AF	470m NW	Hospital	1931	1911009
AF	470m NW	Hospital	1907	1946050
AF	470m NW	Infectious Diseases Hospital	1895	1945181
AF	472m NW	Infectious Diseases Hospital	1896	1908741
AB	472m SW	Filter Beds	1907	1865153
AB	472m SW	Unspecified Ground Workings	1973	1853352
W	474m NW	Fire Station	1991	1922610
W	474m NW	Fire Station	1973	1939992
12	483m SE	Railway Sidings	1866	1883167
AI	484m NE	Railway Sidings	1914	1893335
AJ	485m SE	Nursery	1896	1904865
Z	486m NE	Timber Yard	1896	1939589
AI	486m NE	Railway Sidings	1931	1892004
AI	486m NE	Railway Sidings	1931	1892004
Z	486m N	Timber Yard	1898	1932977
Z	486m N	Timber Yard	1898	1932977
Z	488m N	Timber Yard	1914	1933813
Z	490m N	Timber Yard	1907	1951199

ID	Location	Land Use	Date	Group ID
AA	490m NW	Unspecified Workhouse	1914	1940037
AB	490m SW	Engine House	1932	1947186
Z	491m NE	Railway Sidings	1898	1922835
Z	491m NE	Railway Sidings	1898	1944428
S	495m W	Railway Sidings	1914	1926373
Z	496m N	Timber Yard	1895	1967464
AJ	496m SE	Nursery	1896	1904865
AJ	496m SE	Nursery	1898	1904865
AB	496m SW	Engine House	1931	1908129
AB	497m SW	Engine House	1942	1939713
AB	497m SW	Engine House	1931	1938487
AB	497m SW	Engine House	1907	1953374

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**19**

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 24**

ID	Location	Land Use	Date	Group ID
M	332m SW	Unspecified Tank	1973	317697
M	333m SW	Unspecified Tank	1989	317697
N	362m W	Unspecified Tank	1932	308643
U	373m N	Unspecified Tank	1971	317380
U	373m N	Unspecified Tank	1973	317380
U	374m N	Unspecified Tank	1978	328273
8	408m W	Unspecified Tank	1997	308640
Z	444m NE	Unspecified Tank	1962	314735

ID	Location	Land Use	Date	Group ID
Z	444m NE	Unspecified Tank	1963	314735
Z	444m NE	Unspecified Tank	1952	314735
AB	455m SW	Unspecified Tank	1968	320429
AB	455m SW	Unspecified Tank	1952	320429
AB	470m SW	Unspecified Tank	1952	308529
S	471m W	Tanks	1969	311360
AB	472m SW	Tanks	1952	311398
S	475m W	Unspecified Tank	1897	308641
AB	497m SW	Tanks	1952	311396
AB	500m SW	Tanks	1968	314006
AB	500m SW	Tanks	1952	314006

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**82**

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 24**

ID	Location	Land Use	Date	Group ID
C	105m SW	Electricity Substation	1996	212169
C	105m SW	Electricity Substation	1988	212169
C	105m SW	Electricity Substation	1988	212169
3	160m N	Electricity Substation	1996	191134
E	163m E	Electricity Substation	1971	191133
F	174m S	Electricity Substation	1968	208920
F	174m S	Electricity Substation	1973	208920
E	174m E	Electricity Substation	1986	191132
F	174m S	Electricity Substation	1996	208920

ID	Location	Land Use	Date	Group ID
F	174m S	Electricity Substation	1993	208920
F	174m S	Electricity Substation	1972	208920
F	174m S	Electricity Substation	1968	208920
F	174m S	Electricity Substation	1986	208920
F	174m S	Electricity Substation	1984	208920
K	249m NW	Electricity Substation	1981	203068
K	249m NW	Electricity Substation	1988	203068
K	249m NW	Electricity Substation	1988	203068
K	250m NW	Electricity Substation	1996	203068
L	258m S	Electricity Substation	1968	212310
L	258m S	Electricity Substation	1973	212310
K	258m NW	Electricity Substation	1973	191135
L	259m S	Electricity Substation	1972	212310
L	259m S	Electricity Substation	1968	212310
L	259m S	Electricity Substation	1993	212310
L	259m S	Electricity Substation	1996	212310
L	259m S	Electricity Substation	1986	212310
L	259m S	Electricity Substation	1984	210390
O	304m N	Electricity Substation	1981	198371
O	304m N	Electricity Substation	1988	198371
O	304m N	Electricity Substation	1988	198371
O	304m N	Electricity Substation	1973	198371
O	304m N	Electricity Substation	1996	198371
P	318m W	Electricity Substation	1997	197285
P	318m W	Electricity Substation	1989	197285
R	321m E	Electricity Substation	1986	200438
J	322m SW	Electricity Substation	1996	199980
J	322m SW	Electricity Substation	1993	199980

ID	Location	Land Use	Date	Group ID
R	322m E	Electricity Substation	1993	200438
R	322m E	Electricity Substation	1971	200438
P	332m W	Electricity Substation	1997	191136
P	332m W	Electricity Substation	1989	191137
T	338m W	Electricity Substation	1973	196811
T	339m W	Electricity Substation	1989	196811
V	355m SE	Electricity Substation	1972	201360
V	355m SE	Electricity Substation	1968	201360
V	355m SE	Electricity Substation	1996	209732
V	355m SE	Electricity Substation	1993	209732
V	356m SE	Electricity Substation	1968	209732
V	356m SE	Electricity Substation	1973	209732
V	356m SE	Electricity Substation	1986	209732
V	356m SE	Electricity Substation	1984	209732
X	375m SW	Gas Governor	1996	196841
X	375m SW	Gas Governor	1993	196841
X	377m S	Gas Governor	1986	208277
N	398m NW	Electricity Substation	1969	211802
N	398m NW	Electricity Substation	1973	211802
N	399m NW	Electricity Substation	1997	203814
N	400m W	Electricity Substation	1989	211802
AE	424m W	Electricity Substation	1969	195299
AE	424m W	Electricity Substation	1973	195299
AE	424m W	Electricity Substation	1989	195299
W	453m NW	Electricity Substation	1997	192316
S	458m W	Electricity Substation	1997	192636
S	459m W	Electricity Substation	1989	207000
S	463m W	Electricity Substation	1969	192693

ID	Location	Land Use	Date	Group ID
S	463m W	Electricity Substation	1973	193725
AG	465m E	Electricity Substation	1986	211161
AG	467m E	Electricity Substation	1993	211161
AG	467m E	Electricity Substation	1971	211161
S	474m W	Electricity Substation	1997	205252
S	474m W	Electricity Substation	1973	205252
W	474m NW	Electricity Substation	1973	194202
W	475m NW	Electricity Substation	1989	192857
S	475m W	Electricity Substation	1989	205252
AH	478m S	Electricity Substation	1996	200845
AH	478m S	Electricity Substation	1993	200845
AH	478m S	Electricity Substation	1984	200845
AH	478m S	Electricity Substation	1968	200845
AH	478m S	Electricity Substation	1973	200845
AH	479m S	Electricity Substation	1986	200845
AH	479m S	Electricity Substation	1972	203011
AH	479m S	Electricity Substation	1968	203011

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	28

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'.

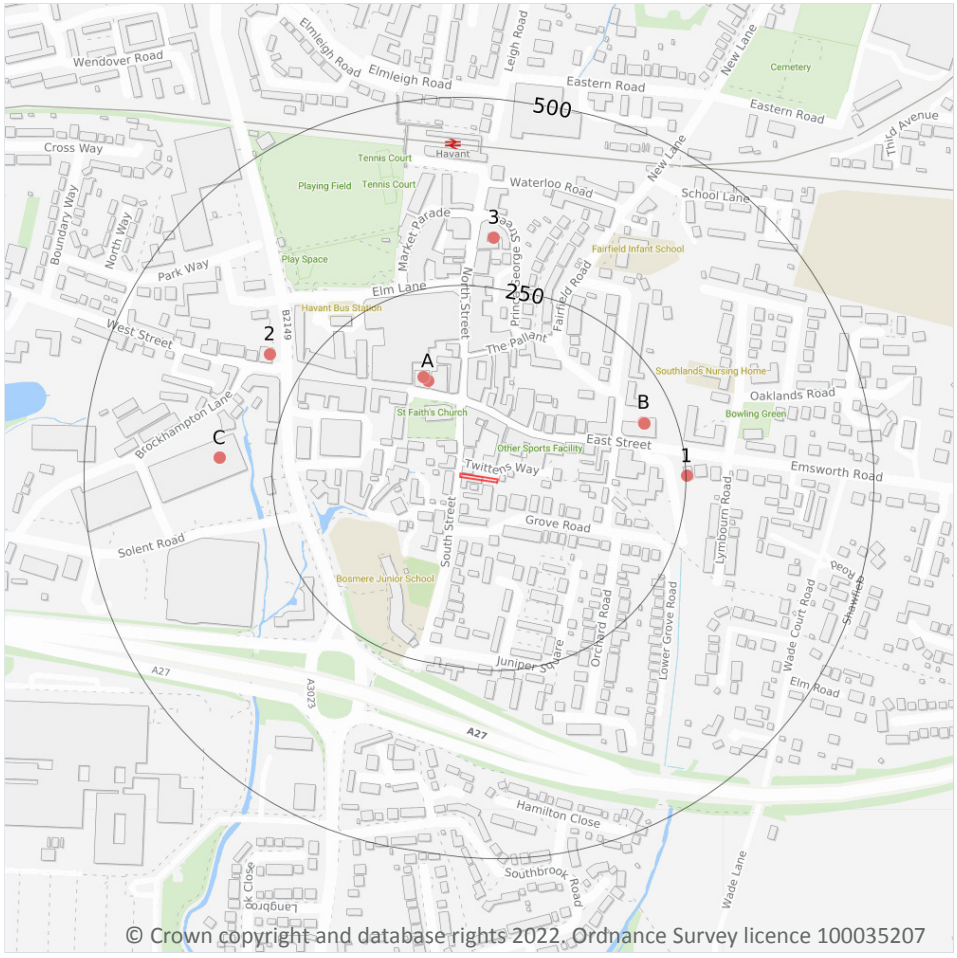
Features are displayed on the Past land use - un-grouped map on **page 24**

ID	Location	Land Use	Date	Group ID
A	15m N	Garage	1981	63721
A	15m N	Garage	1988	63721
A	15m N	Garage	1988	63721
A	15m N	Garage	1973	61474
A	16m N	Garage	1996	62684
B	17m S	Garage	1996	64279
B	18m S	Garage	1960	64881
B	18m S	Garage	1981	64895
B	18m S	Garage	1988	64895
B	18m S	Garage	1988	64895
B	18m S	Garage	1960	64881
B	18m S	Garage	1965	64279
B	18m S	Garage	1973	64279
D	136m NE	Garage	1960	64491
D	136m NE	Garage	1965	64491
D	136m NE	Garage	1973	64491
D	137m NE	Garage	1960	62310
G	178m W	Garage	1981	64068
G	178m W	Garage	1988	64068
G	178m W	Garage	1988	64068
G	187m W	Garage	1960	62699
G	187m W	Garage	1960	61408
G	187m W	Garage	1965	64424

ID	Location	Land Use	Date	Group ID
G	187m W	Garage	1973	64424
G	244m W	Garage	1965	60926
6	321m S	Garage	1959	60938
N	382m NW	Garage	1989	64773
N	392m NW	Garage	1997	64773

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

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

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

3.6 Licensed waste sites

Records within 500m	0

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

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

3.7 Waste exemptions

Records within 500m	11

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.

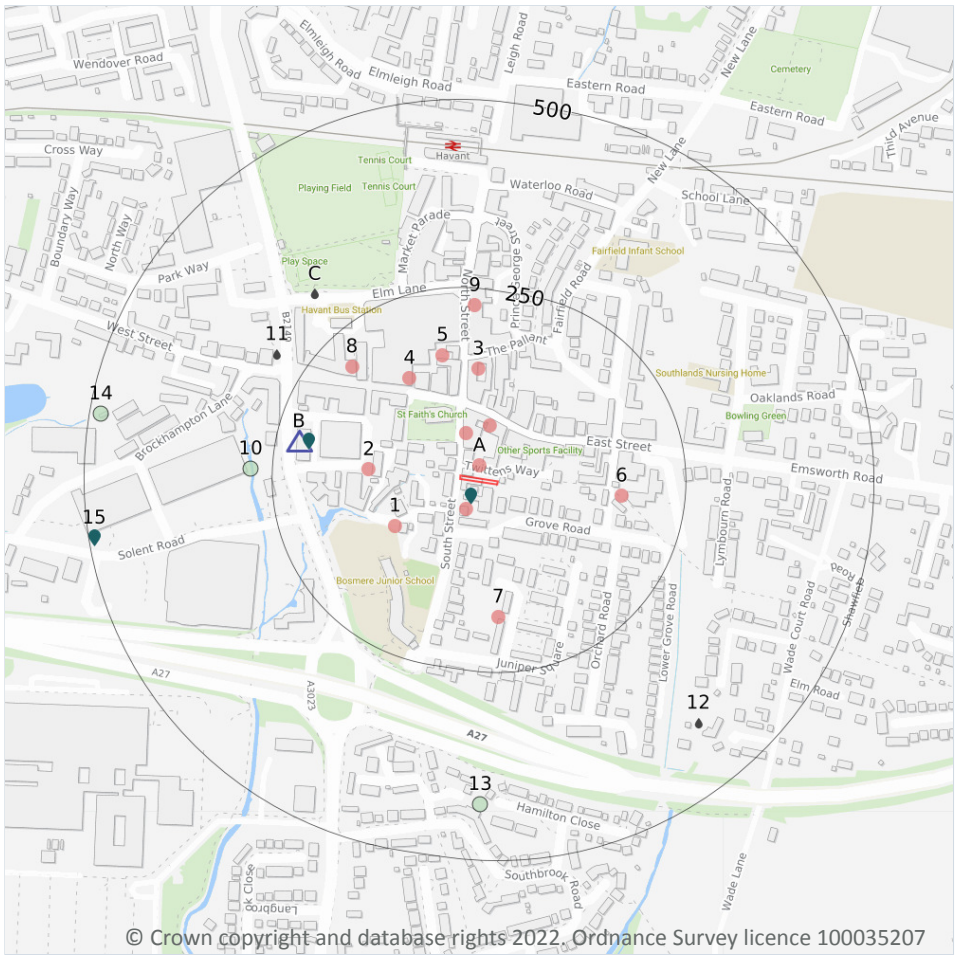
Features are displayed on the Waste and landfill map on **page 38**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	130m N	12 West Street HAVANT Hampshire PO9 1PF	EPR/QF0531VH/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal

ID	Location	Site	Reference	Category	Sub-Category	Description
A	137m N	12, WEST STREET, HAVANT, PO9 1PF	WEX249601	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	208m E	No Details	EPR/UE5389WF/A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open
B	208m E	-	WEX270062	Using waste exemption	Not on a farm	Use of waste in construction
B	208m E	Octapharm Ltd, Civic Centre Road, HAVANT, PO9 2AZ	WEX284957	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	208m E	Octapharm Ltd, Civic Centre Road, HAVANT, PO9 2AZ	WEX147170	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
1	250m E	-	WEX262007	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
2	299m NW	64, WEST STREET, HAVANT, PO9 1LN	WEX249302	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
3	316m N	Unit 7 North Street Arcade HAVANT Hampshire PO9 1PX	EPR/RE5886JQ/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of textiles
C	322m W	Inside Pets at Home, Solent Retail Park, Solent Road, HAVANT, PO9 1ND	WEX286238	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
C	322m W	Inside Pets at Home, Solent Retail Park, Solent Road, HAVANT, PO9 1ND	WEX148679	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use



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Site Outline

Search buffers in metres (m)

Recent industrial land uses

Current or recent petrol stations

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

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	13

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 41**

ID	Location	Company	Address	Activity	Category
A	17m N	M G Imaging	15b, South Street, Havant, Hampshire, PO9 1BU	Signs	Industrial Products
A	38m S	Havant Garage	25-27, South Street, Havant, Hampshire, PO9 1BU	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	57m N	Mobile Weld	7-9, South Street, Havant, Hampshire, PO9 1BU	Cutting, Drilling and Welding Services	Construction Services

ID	Location	Company	Address	Activity	Category
A	72m N	Urban Grafix	10, East Street, Havant, Hampshire, PO9 1AQ	Published Goods	Industrial Products
1	107m SW	Electricity Sub Station	Hampshire, PO9	Electrical Features	Infrastructure and Facilities
2	122m W	Electricity Sub Station	Hampshire, PO9	Electrical Features	Infrastructure and Facilities
3	144m N	Electricity Sub Station	Hampshire, PO9	Electrical Features	Infrastructure and Facilities
4	146m NW	Boots Hearing Care	2, Meridian Centre, Boots Opticians, West Street, Town Centre, Havant, Hampshire, PO9 1UN	Disability and Mobility Equipment	Consumer Products
5	162m N	Electricity Sub Station	Hampshire, PO9	Electrical Features	Infrastructure and Facilities
6	166m E	Electricity Sub Station	Hampshire, PO9	Electrical Features	Infrastructure and Facilities
7	176m S	Electricity Sub Station	Hampshire, PO9	Electrical Features	Infrastructure and Facilities
8	205m NW	Specsavers Hearcare	34, West Street, Havant, Hampshire, PO9 1PG	Disability and Mobility Equipment	Consumer Products
9	227m N	Mousetrap	20-22, North Street, Havant, Hampshire, PO9 1PR	Clothing, Components and Accessories	Consumer Products

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m **1**

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 41**

ID	Location	Company	Address	LPG	Status
B	220m W	TEXACO	Park Road South, Bulbeck Road, Havant, Hampshire, PO9 1HA	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	3

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 41**

ID	Location	Address	Details	
A	20m S	Havant Garage, 25-27 South Street, Havant, Hampshire, PO9 1BU	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
B	207m W	Star Service Stations (A Division of Texaco Ltd.), 5 Park Road South, Havant, Hampshire, PO9 1HA (Revoked 08/08/2005)	Process: Petrol Vapour Recovery Status: Revoked Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Address	Details	
15	492m W	Solent Cleaners Ltd, 15 Solent Road, Havant, Hampshire, PO9 1AF	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement 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	**4**

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 41**

ID	Location	Address	Details	
11	292m NW	62-66 WEST STREET, HAVANT HAMPSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01171 Permit Version: 1 Receiving Water: FRESHWATER RIVER	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 04/06/1982 Effective Date: 04/06/1982 Revocation Date: 31/03/1997
C	309m NW	BUS STATION AT ELM ROAD, HAVANT HAMPSHIRE	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: N01228 Permit Version: 2 Receiving Water: SALINE ESTUARY	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 14/02/1996 Effective Date: 14/02/1996 Revocation Date: -
C	309m NW	BUS STATION AT ELM ROAD, HAVANT HAMPSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01228 Permit Version: 1 Receiving Water: SALINE ESTUARY	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 26/11/1979 Effective Date: 26/11/1979 Revocation Date: 14/02/1996

ID	Location	Address	Details	
12	414m SE	NORTH CLOSE, HAVANT HAMPSHIRE	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: A00353 Permit Version: 1 Receiving Water: FRESHWATER RIVER	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 01/04/1991 Effective Date: 01/04/1991 Revocation Date: 06/03/1996

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	3

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 41**

ID	Location	Details	
10	278m W	Incident Date: 16/01/2002 Incident Identification: 52708 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
13	425m S	Incident Date: 11/06/2003 Incident Identification: 164901 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
14	484m W	Incident Date: 02/05/2002 Incident Identification: 76228 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) 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.

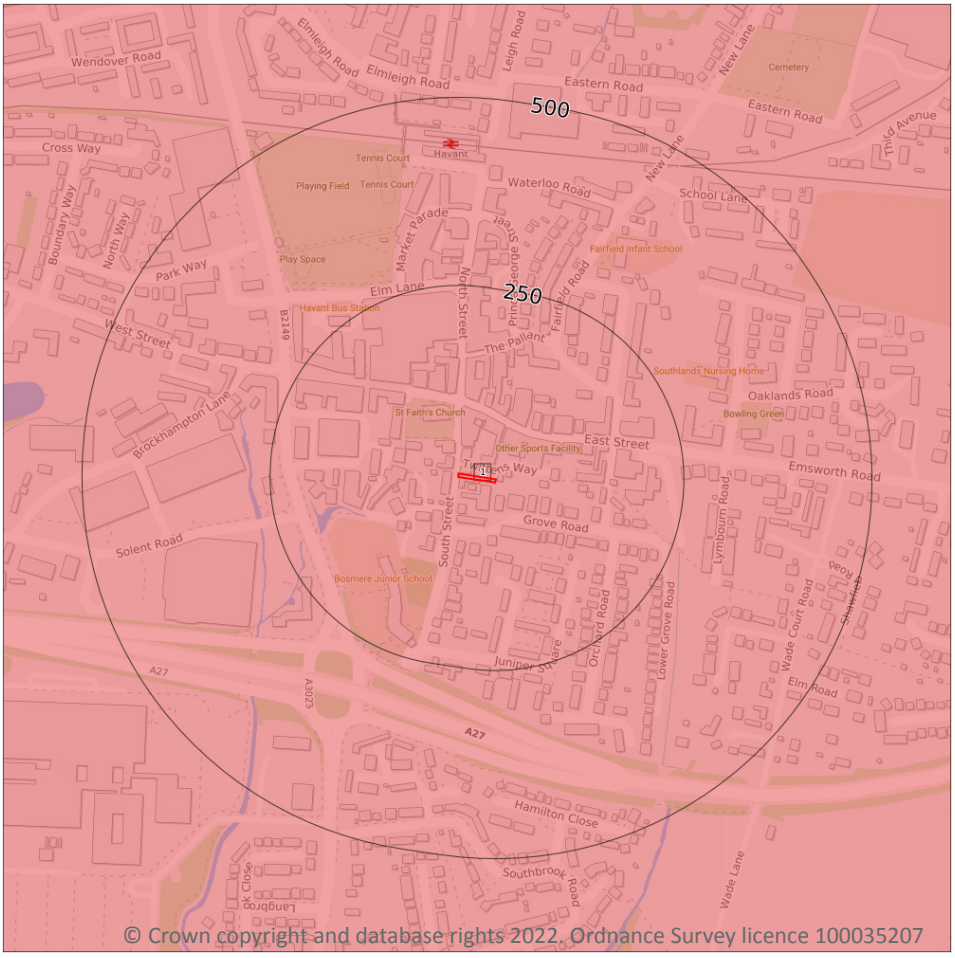
4.21 Pollution inventory radioactive waste

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



Site Outline

Search buffers in metres (m)

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

5.1 Superficial aquifer

Records within 500m	1

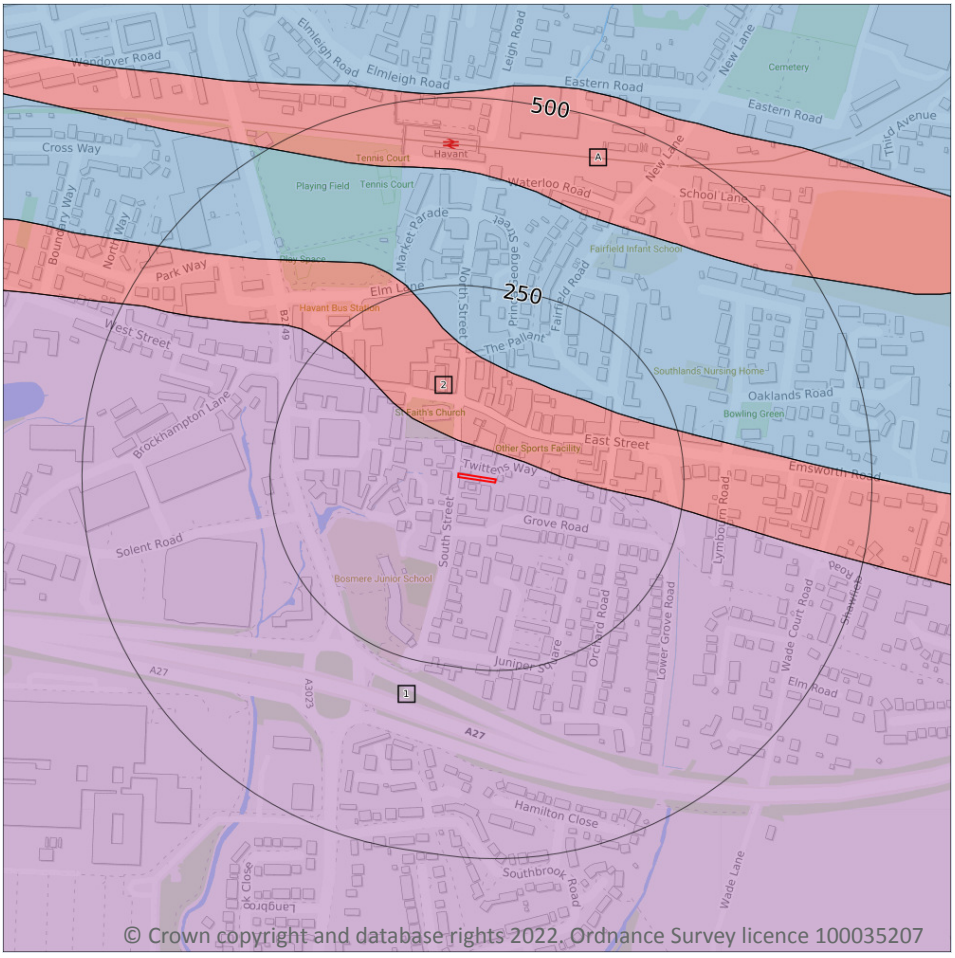
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 49**

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

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

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	4

Aquifer status of groundwater held within bedrock geology.

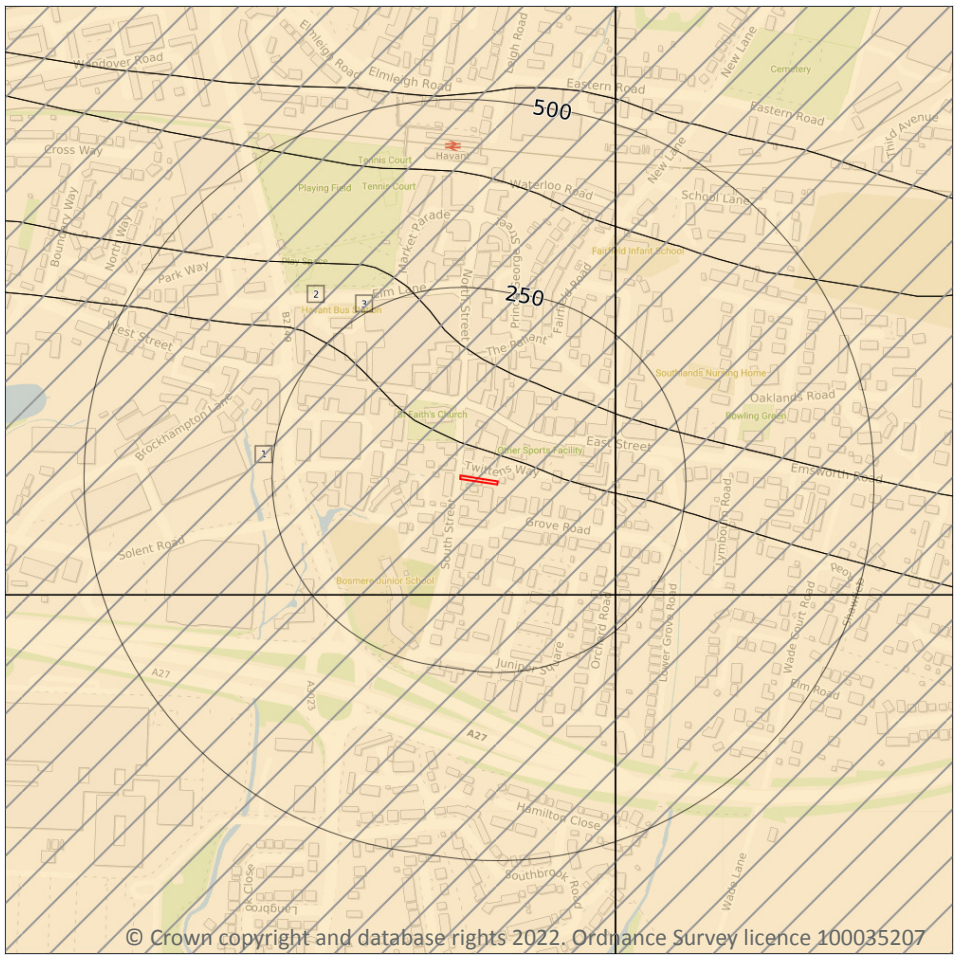
Features are displayed on the Bedrock aquifer map on **page 50**

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	34m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
A	140m NE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
A	371m N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	2

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

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

Features are displayed on the Groundwater vulnerability map on **page 52**

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: 3-10m Patchiness value: >90% Recharge potential: High**	**Vulnerability: Medium Aquifer type: Principal Flow mechanism: Well connected fractures**
3	33m N	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: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Medium Aquifer type: Secondary 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	**Very significant soluble rocks are likely to be present with a moderate possibility of localised natural subsidence or dissolution-related degradation of bedrock, especially in adverse conditions such as concentrated surface or subsurface water flow.**	**17.0%**

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

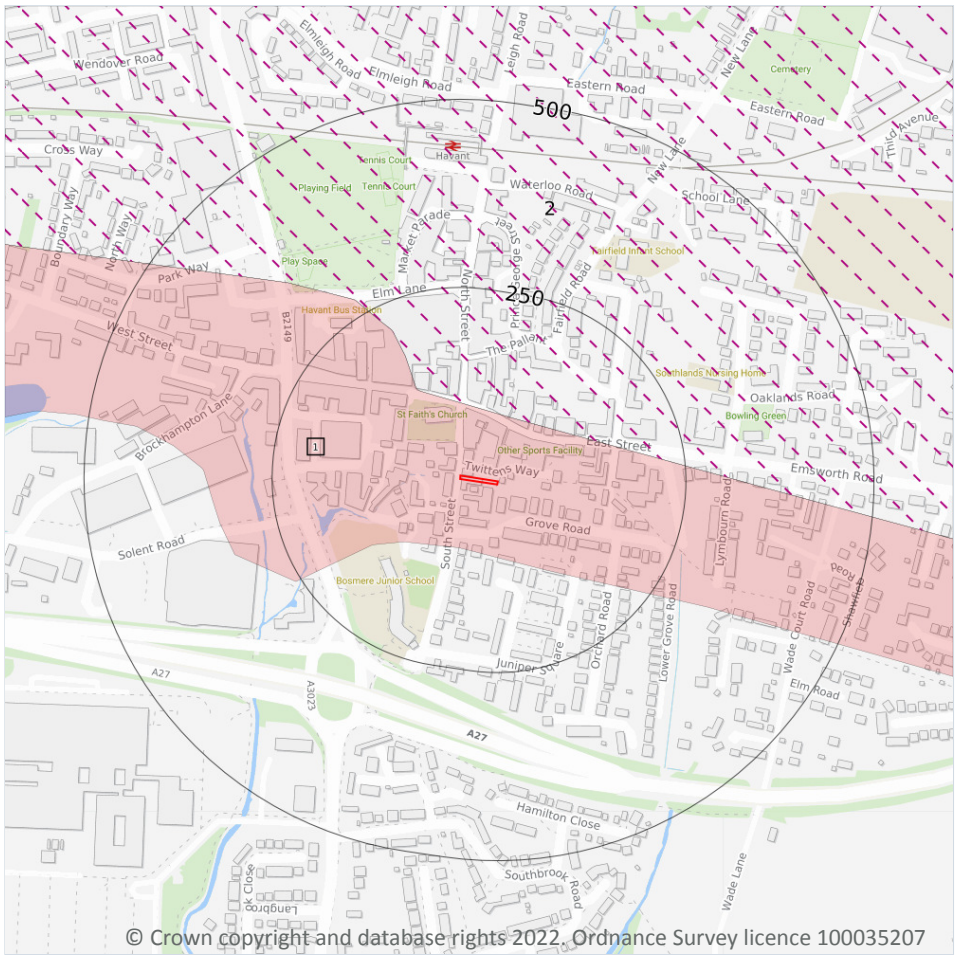
5.5 Groundwater vulnerability- local information

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



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- 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 54**

ID	Location	Details	
-	802m W	Status: Active Licence No: 11/42/36.2/1 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BEDHAMPTON PS SPRING NO 2 Data Type: Point Name: Portsmouth Water Ltd Easting: 471020 Northing: 106370	Annual Volume (m^3): 35,770,000 Max Daily Volume (m^3): 137,000 Original Application No: NPS/WR/003341 Original Start Date: 23/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 09/06/2009 Version End Date: -
-	1232m W	Status: Active Licence No: 11/42/36.2/1 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BEDHAMPTON PS SPRING NO 1 Data Type: Point Name: Portsmouth Water Ltd Easting: 470580 Northing: 106370	Annual Volume (m^3): 35,770,000 Max Daily Volume (m^3): 137,000 Original Application No: NPS/WR/003341 Original Start Date: 23/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 09/06/2009 Version End Date: -
-	1318m W	Status: Active Licence No: 11/42/36.2/1 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: HAVANT PS Data Type: Point Name: Portsmouth Water Ltd Easting: 470480 Northing: 106270	Annual Volume (m^3): 35,770,000 Max Daily Volume (m^3): 137,000 Original Application No: NPS/WR/003341 Original Start Date: 23/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 09/06/2009 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	3

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 54**

ID	Location	Details	
-	802m W	Status: Active Licence No: 11/42/36.2/1 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BEDHAMPTON PS SPRING NO 2 Data Type: Point Name: Portsmouth Water Ltd Easting: 471020 Northing: 106370	Annual Volume (m^3): 35,770,000 Max Daily Volume (m^3): 137,000 Original Application No: NPS/WR/003341 Original Start Date: 23/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 09/06/2009 Version End Date: -
-	1232m W	Status: Active Licence No: 11/42/36.2/1 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: BEDHAMPTON PS SPRING NO 1 Data Type: Point Name: Portsmouth Water Ltd Easting: 470580 Northing: 106370	Annual Volume (m^3): 35,770,000 Max Daily Volume (m^3): 137,000 Original Application No: NPS/WR/003341 Original Start Date: 23/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 09/06/2009 Version End Date: -
-	1318m W	Status: Active Licence No: 11/42/36.2/1 Details: Potable Water Supply - Direct Direct Source: Southern Region Groundwater Point: HAVANT PS Data Type: Point Name: Portsmouth Water Ltd Easting: 470480 Northing: 106270	Annual Volume (m^3): 35,770,000 Max Daily Volume (m^3): 137,000 Original Application No: NPS/WR/003341 Original Start Date: 23/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 09/06/2009 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	1

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 54**

ID	Location	Type	Description
1	**On site**	**1**	**Inner catchment**

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m	**1**

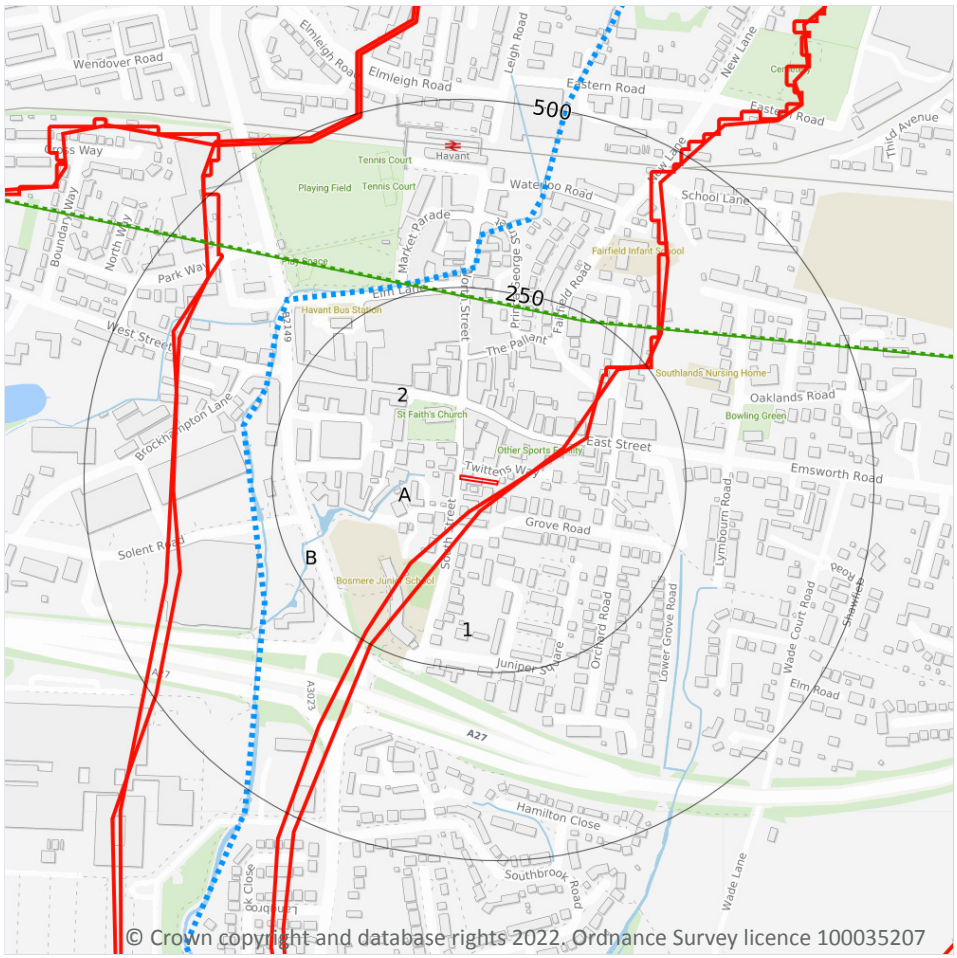
Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

Features are displayed on the Abstractions and Source Protection Zones map on **page 54**

ID	Location	Type	Description
2	86m N	1c	Inner catchment within confined aquifer

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

6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m	5

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 58**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	47m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
A	122m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
A	131m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	189m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	189m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	**3**

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

Features are displayed on the Hydrology map on **page 58**

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 58**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**River**	**Lavant (Hants)**	**GB107042016420**	**East Hampshire Rivers**	**East Hampshire**

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 58**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	264m N	River	Lavant (Hants)	GB107042016420	Poor	Fail	Poor	2019

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

6.5 WFD Groundwater bodies

Records on site	1

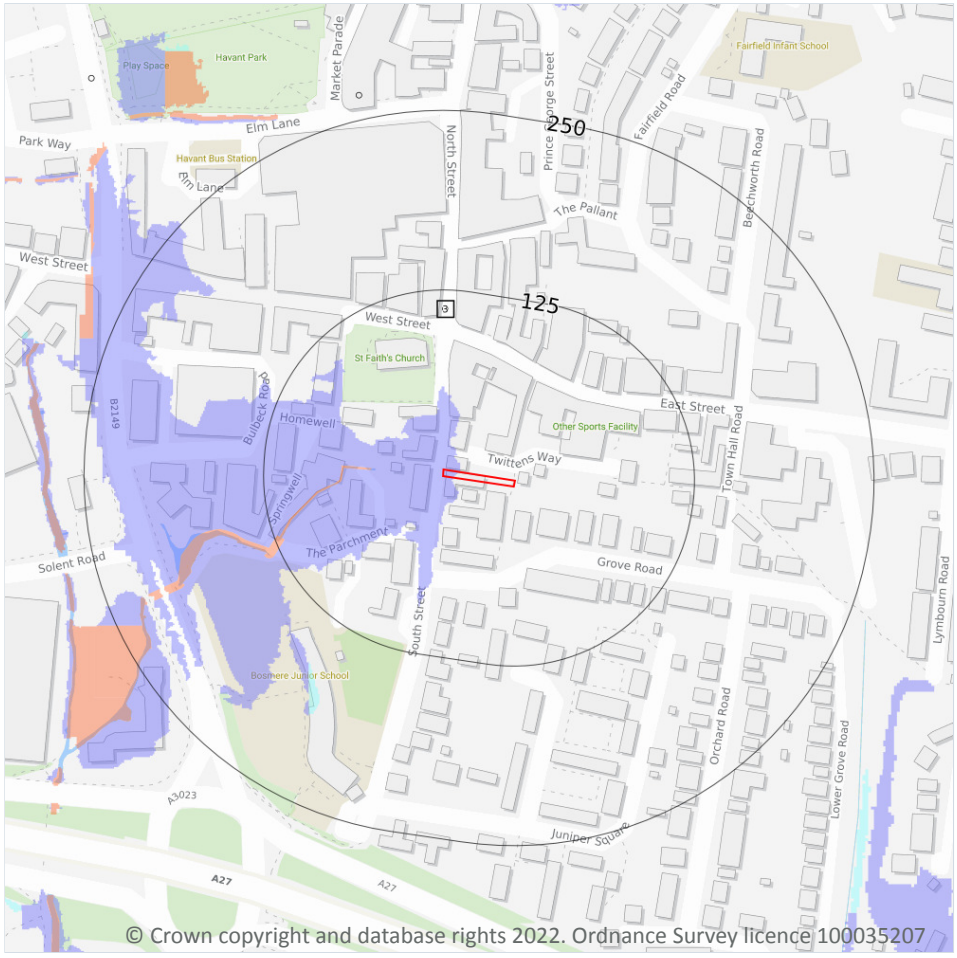
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 58**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	**On site**	**South Hants Lambeth Group**	**GB40702G503700**	**Good**	**Good**	**Good**	**2019**

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

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

7.1 Risk of flooding from rivers and the sea

Records within 50m	1

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

Features are displayed on the River and coastal flooding map on **page 61**

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

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

7.2 Historical Flood Events

Records within 250m	**1**

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

Features are displayed on the River and coastal flooding map on **page 61**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
3	110m N	Unconfirmed - 07128feg01094feb01121	Unconfirmed Unconfirmed	Unconfirmed - Unknown	Unknown	No data

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 61**

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

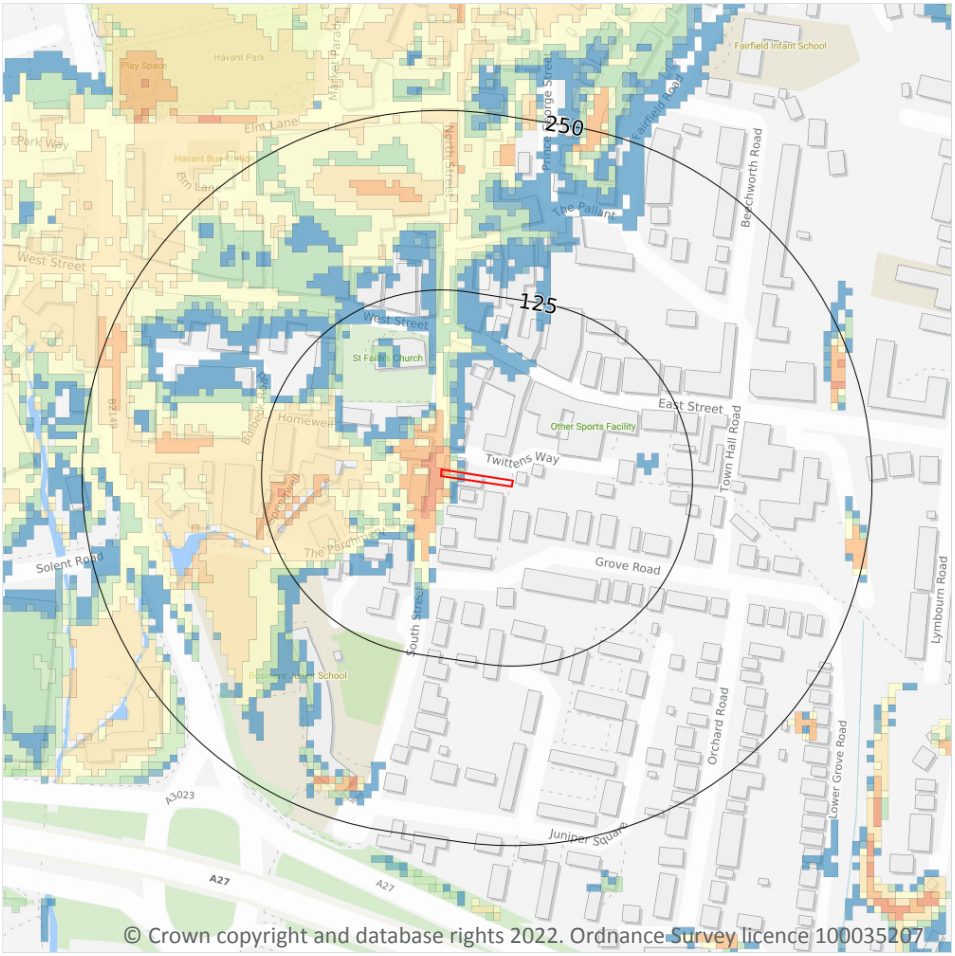
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 61**

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

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

8 Surface water flooding



8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

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

Features are displayed on the Surface water flooding map on **page 66**

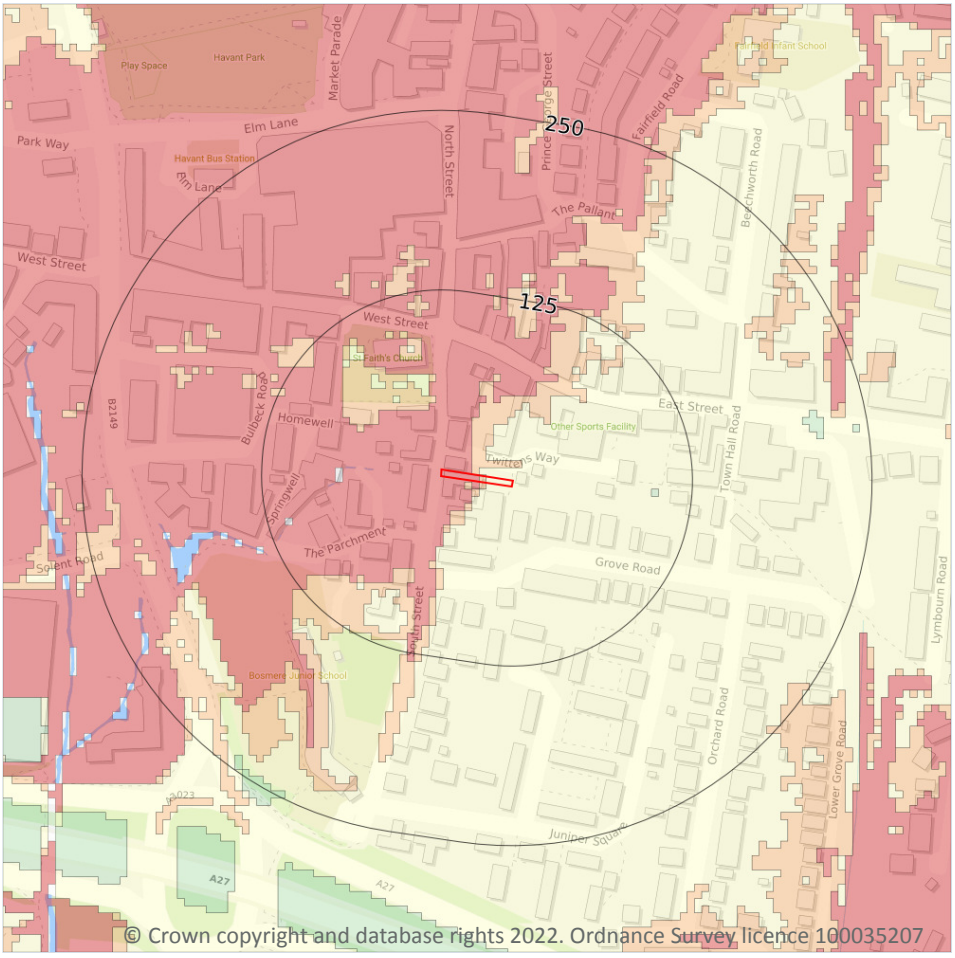
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

Return period	Maximum modelled depth
1 in 1000 year	Between 0.3m and 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

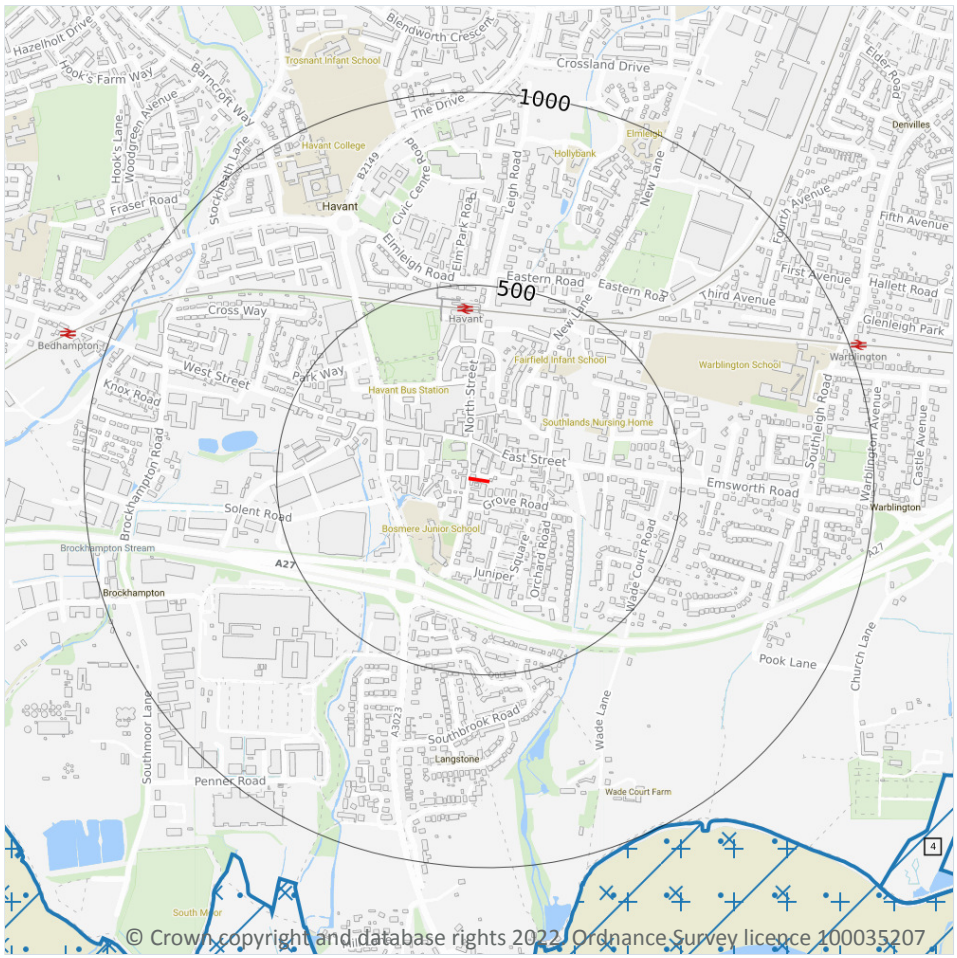
Highest risk on site	**High**
Highest risk within 50m	**High**

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 68**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	3

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

Features are displayed on the Environmental designations map on **page 69**

ID	Location	Name	Data source
A	1001m SE	Chichester Harbour	Natural England

ID	Location	Name	Data source
B	1141m SW	Langstone Harbour	Natural England
4	1406m SE	Warblington Meadow	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	**2**

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.

Features are displayed on the Environmental designations map on **page 69**

ID	Location	Site	Details
A	1000m SE	Name: Chichester and Langstone Harbours Site status: Listed Data source: Natural England	Overview: Chichester and Langstone Harbours are large, sheltered estuarine basins comprising extensive mud and sand flats exposed at low tide. The site is of particular significance for over-wintering wildfowl and waders and also a wide range of coastal and transitional habitats supporting important plant and animal communities. Ramsar criteria: Ramsar criterion 1 Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes.
B	1141m SW	Name: Chichester and Langstone Harbours Site status: Listed Data source: Natural England	Overview: Chichester and Langstone Harbours are large, sheltered estuarine basins comprising extensive mud and sand flats exposed at low tide. The site is of particular significance for over-wintering wildfowl and waders and also a wide range of coastal and transitional habitats supporting important plant and animal communities. Ramsar criteria: Ramsar criterion 1 Two large estuarine basins linked by the channel which divides Hayling Island from the main Hampshire coastline. The site includes intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes.

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m **1**

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

Features are displayed on the Environmental designations map on **page 69**

ID	Location	Name	Features of interest	Habitat description	Data source
2	1001m SE	Solent Maritime	Subtidal sandbanks; Estuaries; Intertidal mudflats and sandflats; Lagoons; Annual vegetation of drift lines; Coastal shingle vegetation outside the reach of waves; Glasswort and other annuals colonising mud and sand; Cord-grass swards; Atlantic salt meadows; Shifting dunes with marram; Dune grassland; Desmoulin`s whorl snail; Otter; Common seal.	Broad-leaved deciduous woodland; Shingle, Sea cliffs, Islets; Coastal sand dunes, Sand beaches, Machair; Salt marshes, Salt pastures, Salt steppes; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Marine areas, Sea inlets	Natural England

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

10.4 Special Protection Areas (SPA)

Records within 2000m **4**

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.

Features are displayed on the Environmental designations map on **page 69**

ID	Location	Name	Species of interest	Habitat description	Data source
1	1001m SE	Chichester and Langstone Harbours	Common shelduck; Eurasian wigeon; Eurasian teal; Northern pintail; Northern shoveler; Red-breasted merganser; Ringed plover; Grey plover; Sanderling; Bar-tailed godwit; Eurasian curlew; Common redshank; Ruddy turnstone; Sandwich tern; Common tern; Little tern; Dunlin; Dark-bellied brent goose	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Humid grassland, Mesophile grassland; Coastal sand dunes, Sand beaches, Machair; Salt marshes, Salt pastures, Salt steppes; Improved grassland; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Broad-leaved deciduous woodland; Bogs, Marshes, Water fringed vegetation, Fens	Natural England

ID	Location	Name	Species of interest	Habitat description	Data source
3	1141m SW	Chichester and Langstone Harbours	Common shelduck; Eurasian wigeon; Eurasian teal; Northern pintail; Northern shoveler; Red-breasted merganser; Ringed plover; Grey plover; Sanderling; Bar-tailed godwit; Eurasian curlew; Common redshank; Ruddy turnstone; Sandwich tern; Common tern; Little tern; Dunlin; Dark-bellied brent goose	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Humid grassland, Mesophile grassland; Coastal sand dunes, Sand beaches, Machair; Salt marshes, Salt pastures, Salt steppes; Improved grassland; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Broad-leaved deciduous woodland; Bogs, Marshes, Water fringed vegetation, Fens	Natural England
-	1829m S	Chichester and Langstone Harbours	Common shelduck; Eurasian wigeon; Eurasian teal; Northern pintail; Northern shoveler; Red-breasted merganser; Ringed plover; Grey plover; Sanderling; Bar-tailed godwit; Eurasian curlew; Common redshank; Ruddy turnstone; Sandwich tern; Common tern; Little tern; Dunlin; Dark-bellied brent goose	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Humid grassland, Mesophile grassland; Coastal sand dunes, Sand beaches, Machair; Salt marshes, Salt pastures, Salt steppes; Improved grassland; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Broad-leaved deciduous woodland; Bogs, Marshes, Water fringed vegetation, Fens	Natural England
-	1829m S	Chichester and Langstone Harbours	Common shelduck; Eurasian wigeon; Eurasian teal; Northern pintail; Northern shoveler; Red-breasted merganser; Ringed plover; Grey plover; Sanderling; Bar-tailed godwit; Eurasian curlew; Common redshank; Ruddy turnstone; Sandwich tern; Common tern; Little tern; Dunlin; Dark-bellied brent goose	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites); Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Humid grassland, Mesophile grassland; Coastal sand dunes, Sand beaches, Machair; Salt marshes, Salt pastures, Salt steppes; Improved grassland; Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins); Broad-leaved deciduous woodland; Bogs, Marshes, Water fringed vegetation, Fens	Natural England

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	2

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 69**

ID	Location	Name	Data source
-	1884m S	Hayling Billy	Natural England
-	1884m S	West Hayling	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	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	0

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

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

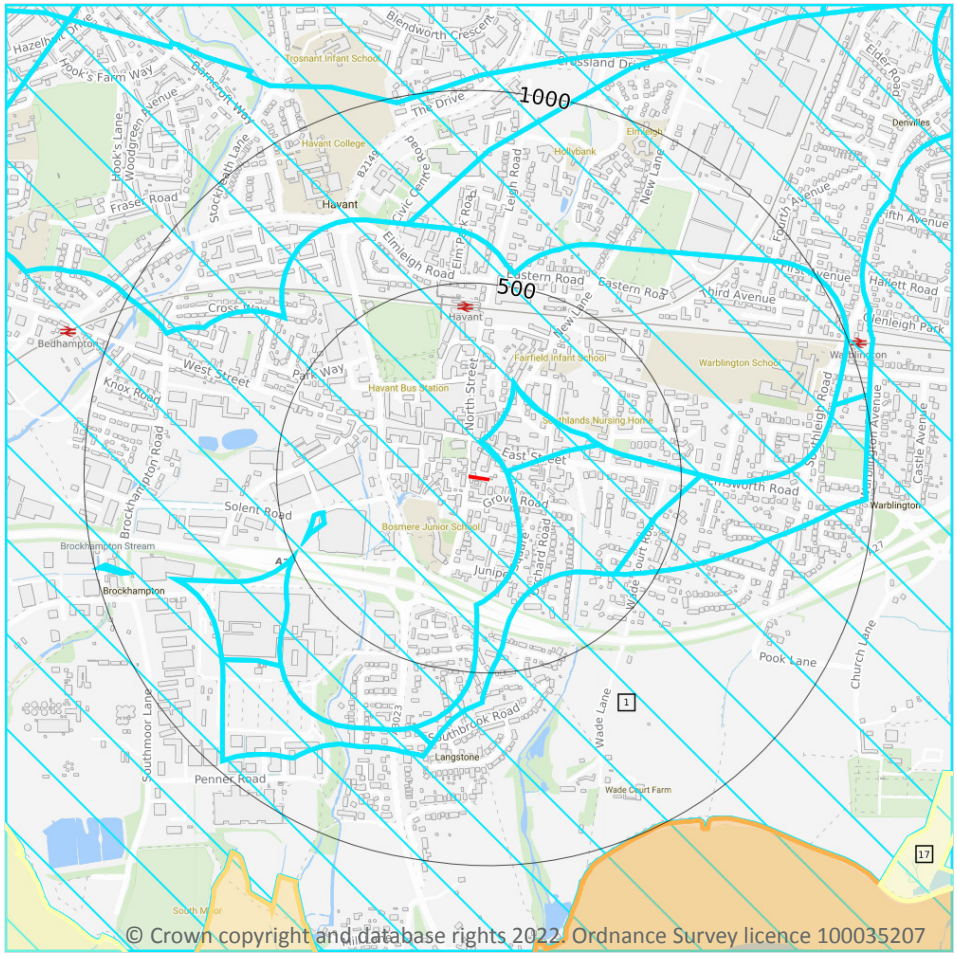
Records within 2000m	5

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	**Chichester,Langstone and Portsmouth Harbours Eutrophic NVZ (TraC)**	**Eutrophic Water**	**2**	**Existing**
165m SW	Chichester,Langstone and Portsmouth Harbours Eutrophic NVZ (TraC)	Eutrophic Water	2	Existing
652m E	WARBLINGTON STREAM - NO.2 NVZ	Surface Water	667	Existing
812m SE	WARBLINGTON STREAM - NO.2 NVZ	Surface Water	667	Existing
1879m S	Chichester,Langstone and Portsmouth Harbours Eutrophic NVZ (TraC)	Eutrophic Water	2	Existing

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

SSSI Impact Zones and Units



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10.17 SSSI Impact Risk Zones

Records on site	1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 76**

ID	Location	Type of developments requiring consultation
1	On site	**All applications - All planning applications - except householder applications. Notes: For new residential development in this area financial contributions are required to mitigate increased recreational disturbance on coastal spas and ramsar sites. check with local planning authority.Solent nutrient impact area. for new development with overnight accommodation reg 63 of the conservation of habitats and species regulations 2017 must be applied. lpa to refer to natural england's solent nutrient neutrality advice note june 2019.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**6**

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 76**

ID: 13
Location: 1001m SE
SSSI name: Chichester Harbour
Unit name: Warblington / Emsworth Foreshore
Broad habitat: Littoral Sediment
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
H1130 Estuaries	Unfavourable - No change	26/09/2018
H1140 Mudflats and sandflats not covered by seawater at low tide	Unfavourable - Recovering	29/11/2010
H1210 Annual vegetation of drift lines	Unfavourable - Recovering	29/11/2010
H1220 Perennial vegetation of stony banks	Favourable	29/11/2010
H1310 Salicornia and other annuals colonising mud and sand	Unfavourable - Recovering	29/11/2010
H1320 Spartina swards (Spartinion maritimae)	Unfavourable - Recovering	29/11/2010
H1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Unfavourable - Declining	07/04/2021
Littoral sediment	Unfavourable - Recovering	13/08/2014
SM4-28 - Saltmarsh	Unfavourable - Declining	07/04/2021

ID: 15
Location: 1141m SW
SSSI name: Langstone Harbour
Unit name: South Moor
Broad habitat: Neutral Grassland - Lowland
Condition: Unfavourable - No change
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of non-breeding birds - Curlew, Numenius arquata	-	-

ID: 16
Location: 1354m S
SSSI name: Langstone Harbour
Unit name: Langstone Hbr East
Broad habitat: Littoral Sediment
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
H1110 Sandbanks which are slightly covered by sea water all the time	Favourable	29/11/2010
H1130 Estuaries	Unfavourable - Recovering	21/09/2018
H1140 Mudflats and sandflats not covered by seawater at low tide	Unfavourable - Recovering	29/11/2010
H1210 Annual vegetation of drift lines	Favourable	29/11/2010
H1220 Perennial vegetation of stony banks	Favourable	29/11/2010
H1310 Salicornia and other annuals colonising mud and sand	Unfavourable - Recovering	29/11/2010
H1320 Spartina swards (Spartinion maritimae)	Unfavourable - Recovering	29/11/2010
H1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Unfavourable - Recovering	29/11/2010
SM4-28 - Saltmarsh	Unfavourable - Recovering	29/11/2010

ID: 17
Location: 1406m SE
SSSI name: Warblington Meadow
Unit name: 1
Broad habitat: Neutral Grassland - Lowland
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
SM4-28 - Saltmarsh	Favourable	28/11/2019

ID: -
Location: 1434m S
SSSI name: Chichester Harbour
Unit name: Northney Foreshore
Broad habitat: Littoral Sediment
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
H1130 Estuaries	Unfavourable - No change	26/09/2018
H1140 Mudflats and sandflats not covered by seawater at low tide	Unfavourable - Recovering	29/11/2010
H1210 Annual vegetation of drift lines	Unfavourable - Recovering	29/11/2010
H1220 Perennial vegetation of stony banks	Unfavourable - Recovering	29/11/2010
H1310 Salicornia and other annuals colonising mud and sand	Unfavourable - Recovering	29/11/2010
H1320 Spartina swards (Spartinion maritimae)	Unfavourable - Recovering	29/11/2010
H1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Unfavourable - Declining	07/04/2021
Littoral sediment	Unfavourable - Recovering	13/08/2014
SM4-28 - Saltmarsh	Unfavourable - Declining	07/04/2021

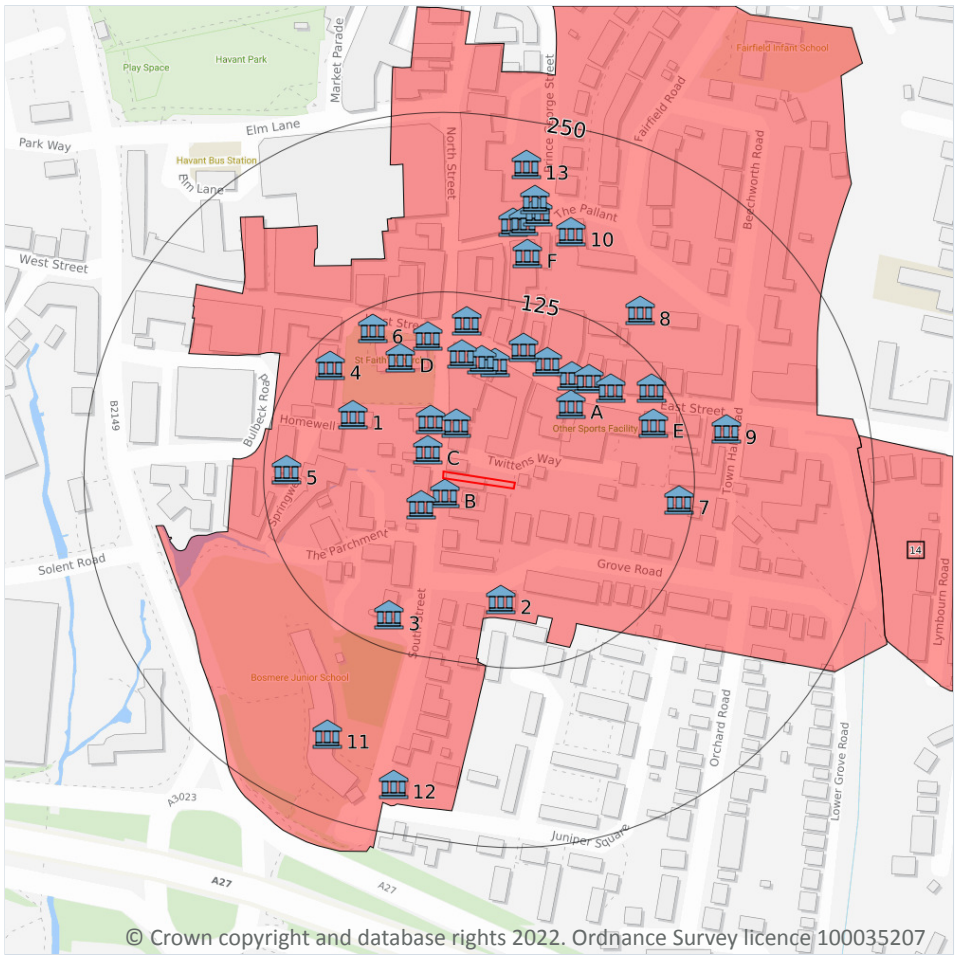
ID: -
Location: 1854m SW
SSSI name: Langstone Harbour
Unit name: North Binness Island
Broad habitat: Littoral Sediment
Condition: Unfavourable - Recovering
Reportable features:

Feature name	Feature condition	Date of assessment
H1110 Sandbanks which are slightly covered by sea water all the time	Unfavourable - Recovering	29/10/2010
H1130 Estuaries	Unfavourable - Recovering	21/09/2018
H1140 Mudflats and sandflats not covered by seawater at low tide	Unfavourable - Recovering	29/10/2010
H1210 Annual vegetation of drift lines	Unfavourable - Recovering	29/10/2010

Feature name	Feature condition	Date of assessment
H1220 Perennial vegetation of stony banks	Unfavourable - Recovering	29/10/2010
H1310 Salicornia and other annuals colonising mud and sand	Unfavourable - Recovering	29/10/2010
H1320 Spartina swards (Spartinion maritimae)	Unfavourable - Recovering	29/10/2010
H1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	Unfavourable - Recovering	29/10/2010
SM4-28 - Saltmarsh	-	-

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	37

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 81**

ID	Location	Name	Grade	Reference Number	Listed date
B	10m S	23, South Street, St. Faith's, Havant, Hampshire, PO9	II	1303339	21/07/1975
C	19m NW	4,6, 8 and 10, South Street, St. Faith's, Havant, Hampshire, PO9	II	1339953	21/07/1975
B	24m SW	18 and 18a, South Street, St. Faith's, Havant, Hampshire, PO9	II	1155534	21/07/1975
C	35m N	13, South Street, St. Faith's, Havant, Hampshire, PO9	II	1092113	06/02/1984
C	37m N	The Old House At Home Public House, St. Faith's, Havant, Hampshire, PO9	II	1303303	16/05/1952

ID	Location	Name	Grade	Reference Number	Listed date
A	67m NE	22 and 24, East Street, St. Faith's, Havant, Hampshire, PO9	II	1154588	21/07/1975
1	74m NW	22, Homewell, St. Faith's, Havant, Hampshire, PO9	II	1091599	16/05/1952
2	78m S	orchard House and Outbuilding, St. Faith's, Havant, Hampshire, PO9	II	1154616	06/02/1984
A	81m N	8 and 10, East Street, St. Faith's, Havant, Hampshire, PO9	II	1091622	21/07/1975
A	81m N	4 and 6, East Street, St. Faith's, Havant, Hampshire, PO9	II	1154554	06/02/1984
A	83m N	2, East Street, St. Faith's, Havant, Hampshire, PO9	II	1340213	06/02/1984
A	84m NE	17, East Street, St. Faith's, Havant, Hampshire, PO9	II	1091619	21/07/1975
D	85m N	Church of St Faith, St. Faith's, Havant, Hampshire, PO9	II*	1092120	16/05/1952
A	87m N	The Bear Hotel, St. Faith's, Havant, Hampshire, PO9	II	1340211	16/05/1952
A	89m NE	19, East Street, St. Faith's, Havant, Hampshire, PO9	II	1091620	06/02/1984
A	94m NE	21, East Street, St. Faith's, Havant, Hampshire, PO9	II	1340212	16/05/1952
A	94m N	13, East Street, St. Faith's, Havant, Hampshire, PO9	II	1091618	21/07/1975
D	95m N	Havant War Memorial, St. Faith's, Havant, Hampshire, PO9	II	1416419	06/11/2013
3	102m S	Hall Place, St. Faith's, Havant, Hampshire, PO9	II	1092115	21/07/1975
E	105m NE	The Limes, St. Faith's, Havant, Hampshire, PO9	II	1091623	16/05/1952
A	106m N	The White Hart Public House, St. Faith's, Havant, Hampshire, PO9	II	1421943	08/08/2014
4	108m NW	The Robin Hood P.h, St. Faith's, Havant, Hampshire, PO9	II	1340201	21/07/1975
5	109m W	Homewell Parchment Works, St. Faith's, Havant, Hampshire, PO9	II	1362081	23/09/1997
6	111m NW	K6 Telephone Kiosk Near St Faith's Church, St. Faith's, Havant, Hampshire, PO9	II	1339946	28/07/1988
7	115m E	Gothic Cottage, St. Faith's, Havant, Hampshire, PO9	II	1155596	21/07/1975
E	116m NE	Magnolia House, St. Faith's, Havant, Hampshire, PO9	II	1154546	21/07/1975
8	148m NE	Gazebo At Rear of Nos. 23, and 25, St. Faith's, Havant, Hampshire, PO9	II	1091621	15/11/1976
9	152m E	Kingsway House, St. Faith's, Havant, Hampshire, PO9	II	1339956	21/07/1975
F	159m N	10, The Pallant, St. Faith's, Havant, Hampshire, PO9	II	1092127	16/05/1952
F	179m N	11, The Pallant, St. Faith's, Havant, Hampshire, PO9	II	1091612	16/05/1952
10	179m N	St Faith's Church House, St. Faith's, Havant, Hampshire, PO9	II	1092128	05/05/1975

ID	Location	Name	Grade	Reference Number	Listed date
F	181m N	The Pelham, St. Faith's, Havant, Hampshire, PO9	II	1092126	05/05/1975
F	189m N	1, Prince George's Street, St. Faith's, Havant, Hampshire, PO9	II	1092135	05/05/1975
11	196m SW	Bosmere Junior School, St. Faith's, Havant, Hampshire, PO9	II	1445008	06/10/2017
F	197m N	2, Prince George's Street, St. Faith's, Havant, Hampshire, PO9	II	1339923	05/05/1975
12	216m S	Newnham House, St. Faith's, Havant, Hampshire, PO9	II	1092114	21/07/1975
13	220m N	4, Prince George's Street, St. Faith's, Havant, Hampshire, PO9	II	1155220	16/05/1952

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

11.5 Conservation Areas

Records within 250m **2**

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 81**

ID	Location	Name	District	Date of designation
A	**On site**	**St Faith's, Havant**	**Havant**	**1978**
14	240m E	Lymbourn Road, Havant	Havant	1985

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

11.6 Scheduled Ancient Monuments

Records within 250m **0**

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

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

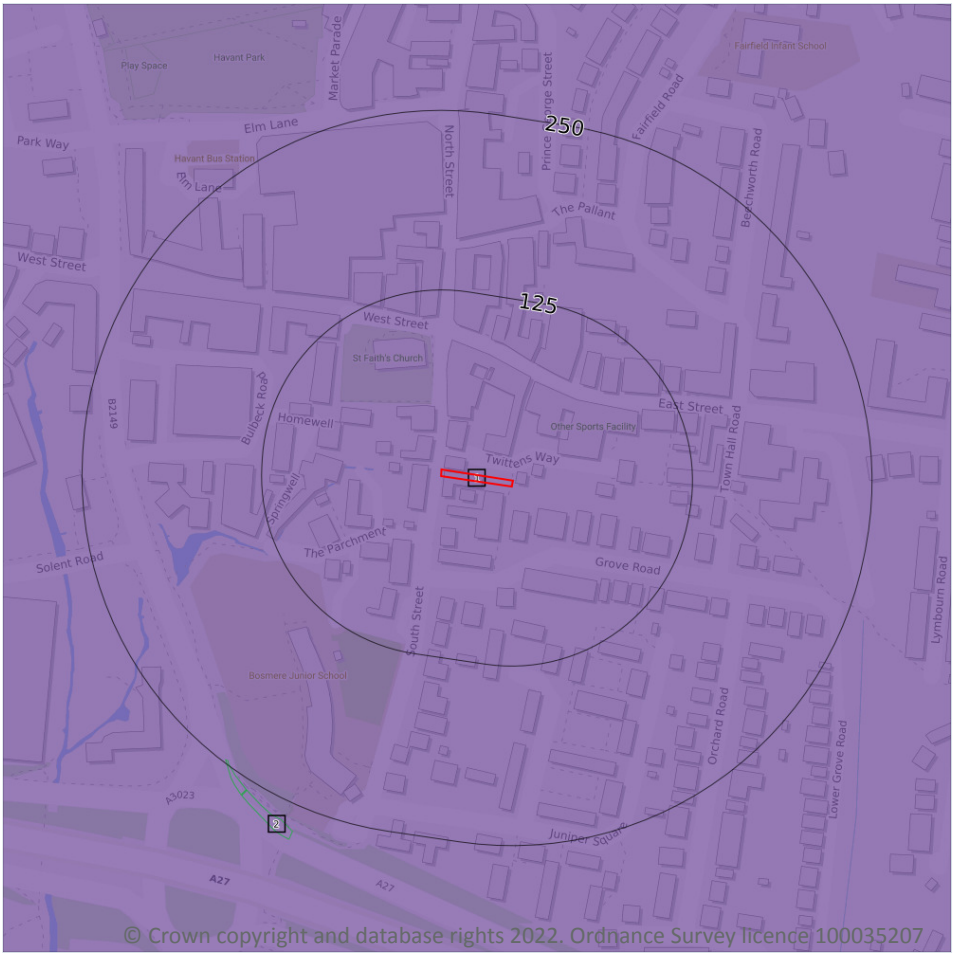
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	1

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

Features are displayed on the Agricultural designations map on **page 86**

ID	Location	Classification	Description
1	**On site**	**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	1

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

Features are displayed on the Agricultural designations map on **page 86**

ID	Location	Description	Reference	Application date
2	248m SW	Selective Fell/Thin (Unconditional)	018/366/15-16	-

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

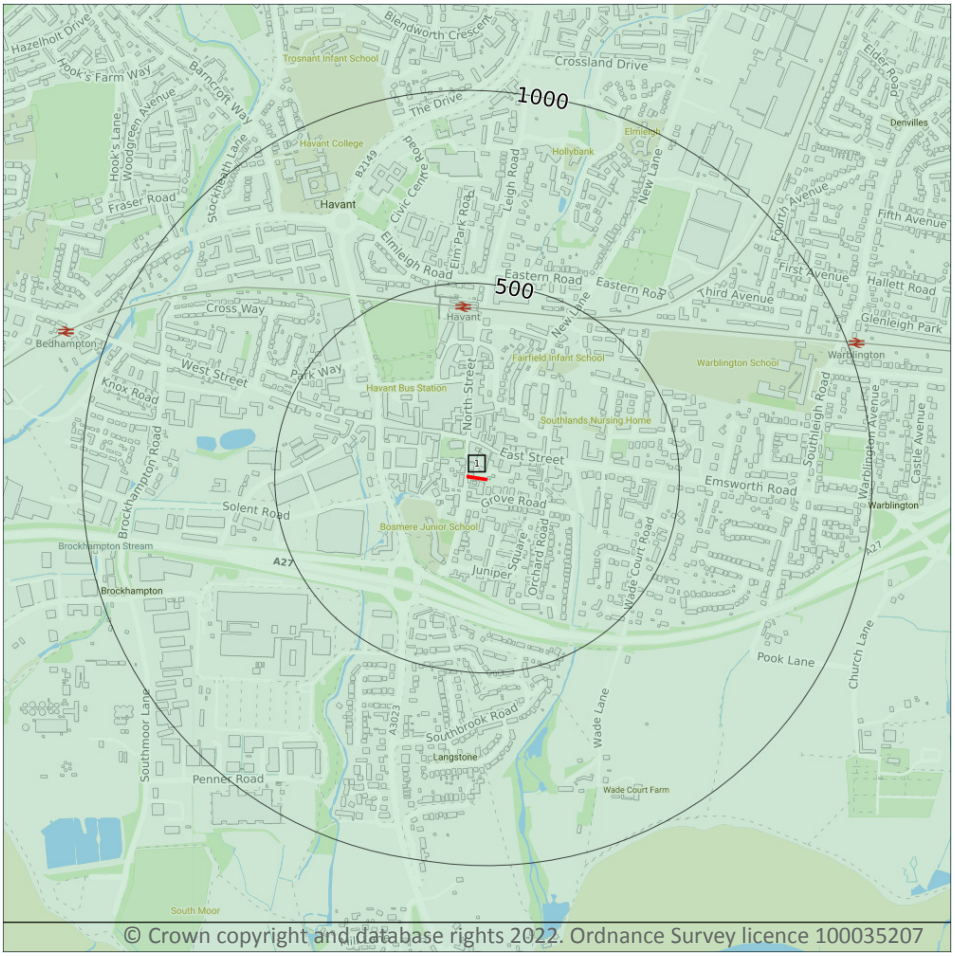
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	1

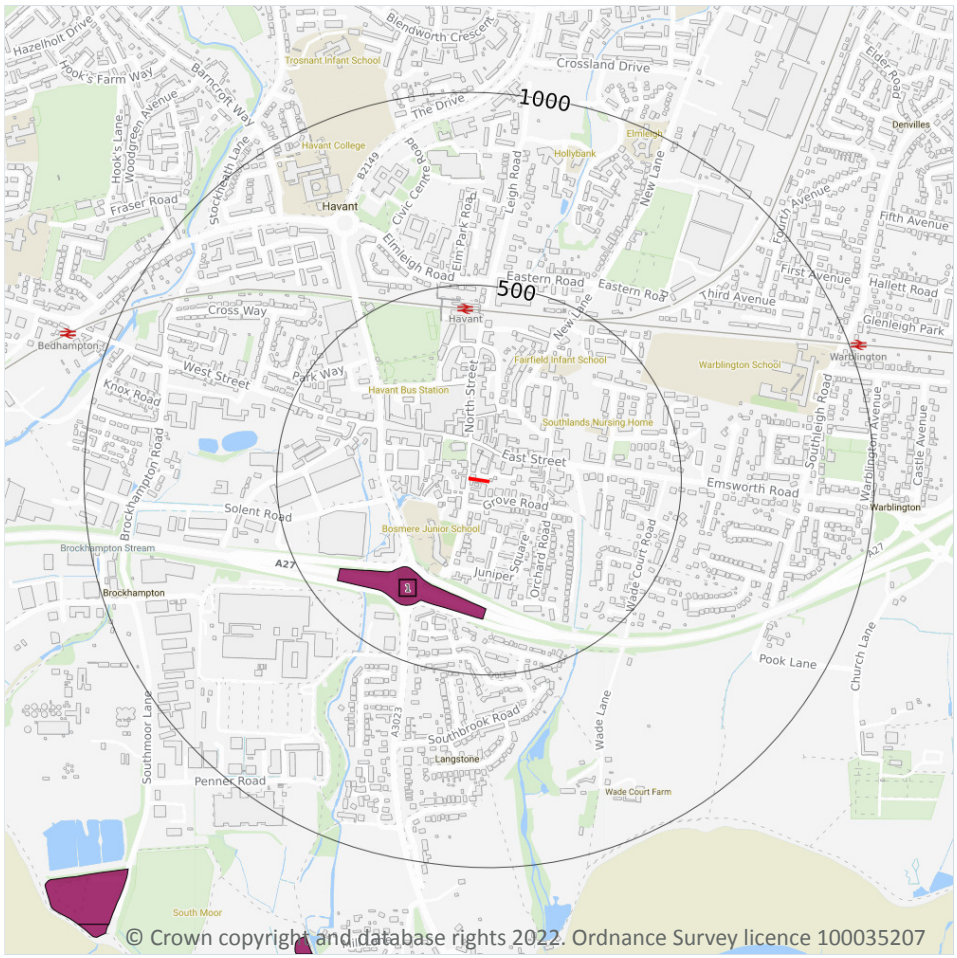
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 89**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SU70NW**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m	1

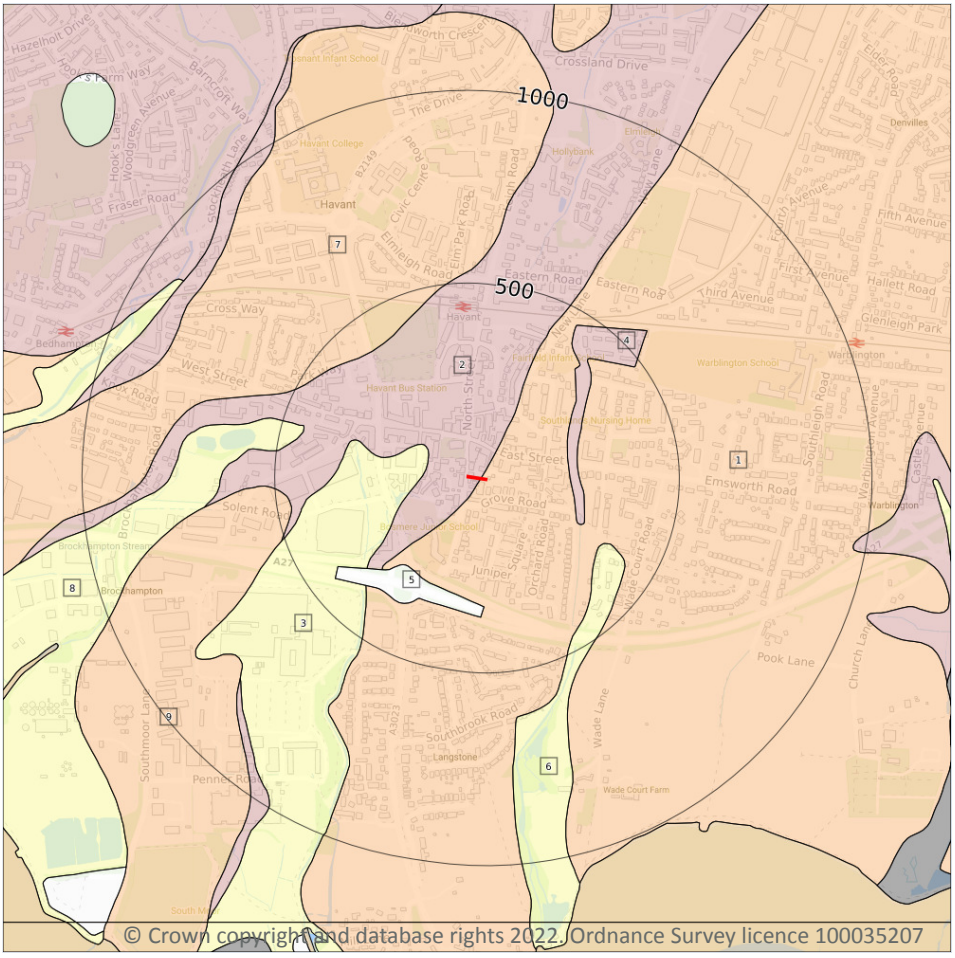
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 90**

ID	Location	LEX Code	Description	Rock description
1	277m SW	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 **9**

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 91**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**RTDU-XSZC**	**River Terrace Deposits (undifferentiated) - Sand, Silt And Clay**	**Sand, Silt And Clay**
2	**On site**	**HEAD-XCZSV**	**Head - Clay, Silt, Sand And Gravel**	**Clay, Silt, Sand And Gravel**
3	108m W	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

ID	Location	LEX Code	Description	Rock description
4	215m E	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
5	277m SW	SUPD-SED	Superficial Deposits - Sediment	Sediment
6	339m SE	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
7	406m NW	RTDU-XSZC	River Terrace Deposits (undifferentiated) - Sand, Silt And Clay	Sand, Silt And Clay
8	441m W	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
9	463m W	RTDU-XSZC	River Terrace Deposits (undifferentiated) - Sand, Silt And Clay	Sand, Silt And Clay

This data is sourced from the British Geological Survey.

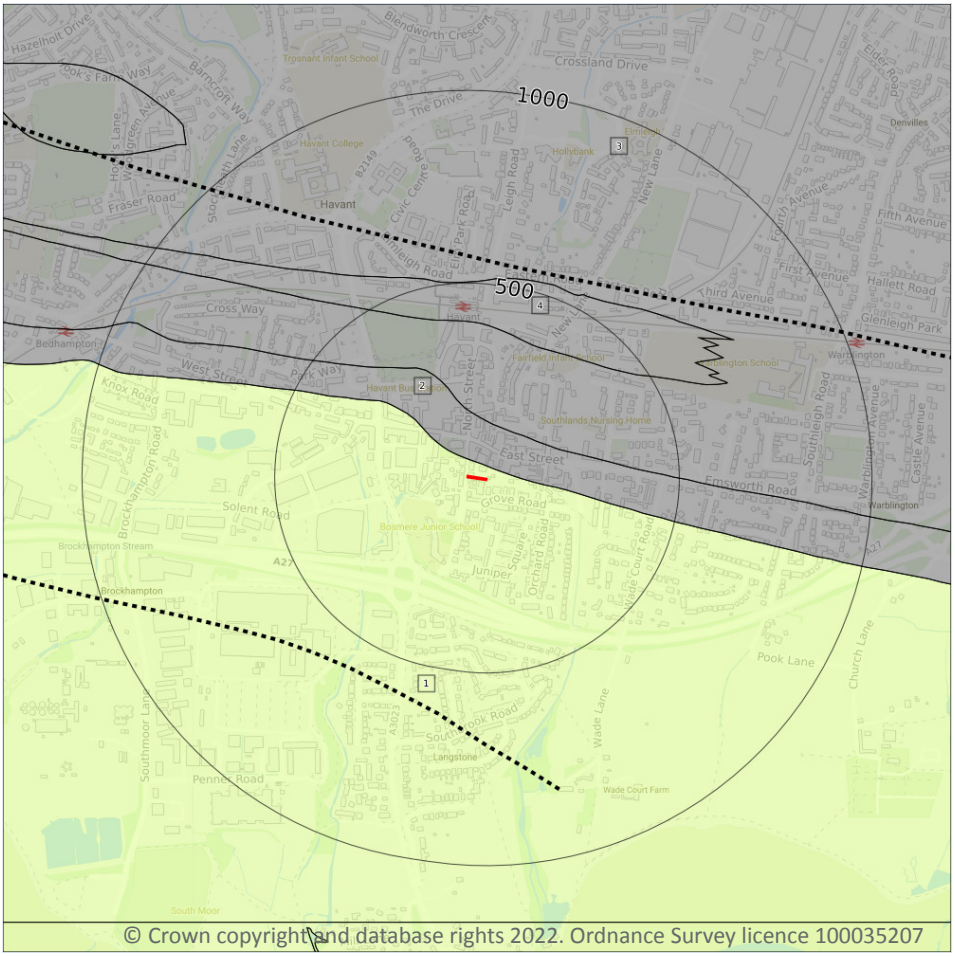
14.4 Landslip (10k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

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 93**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LPCK-CHLK**	**Lewes Nodular Chalk Formation, Seaford Chalk Formation, Newhaven Chalk Formation, Culver Chalk Formation And Portsdown Chalk Formation (undifferentiated) - Chalk**	**Campanian Age - Turonian Age**
2	31m N	LMBE-CLAY	Lambeth Group - Clay	Paleocene Epoch

ID	Location	LEX Code	Description	Rock age
3	137m N	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
4	367m N	BOSA-SANDU	Bognor Sand Member - Sand	Eocene Epoch

This data is sourced from the British Geological Survey.

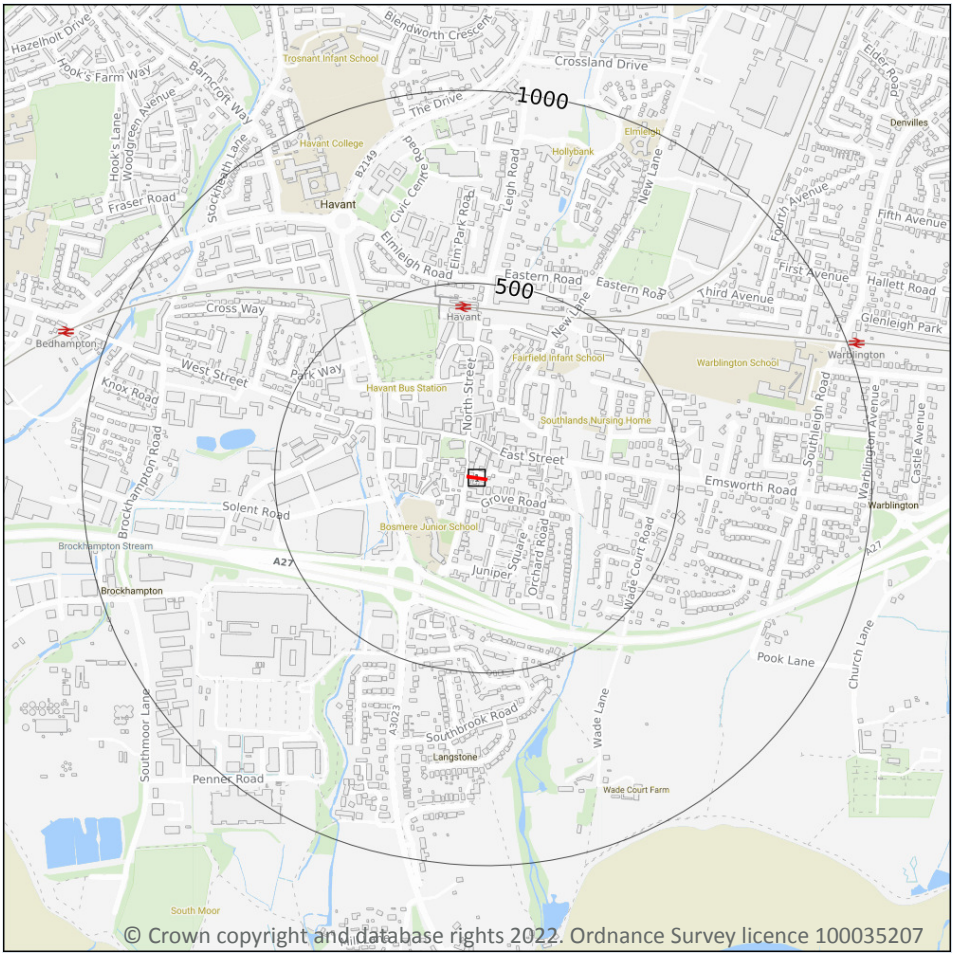
14.6 Bedrock faults and other linear features (10k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

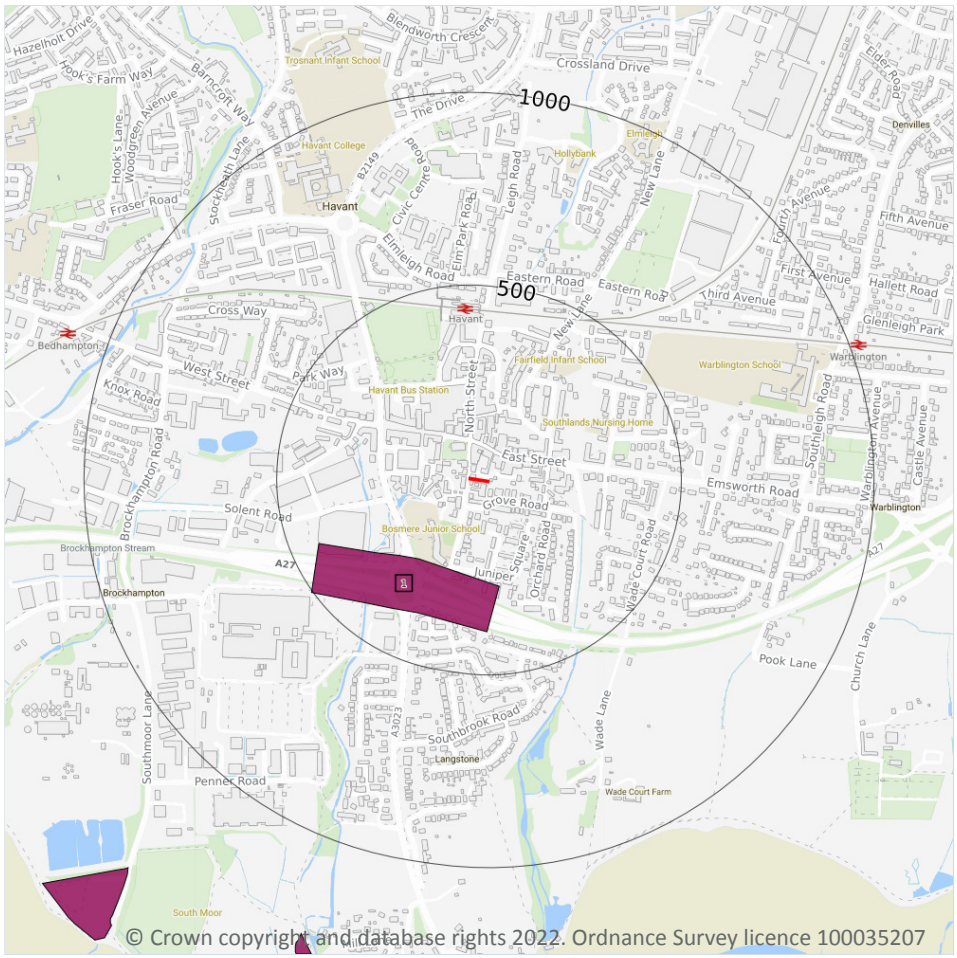
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 95**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW316_fareham_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	1

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 96**

ID	Location	LEX Code	Description	Rock description
1	237m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

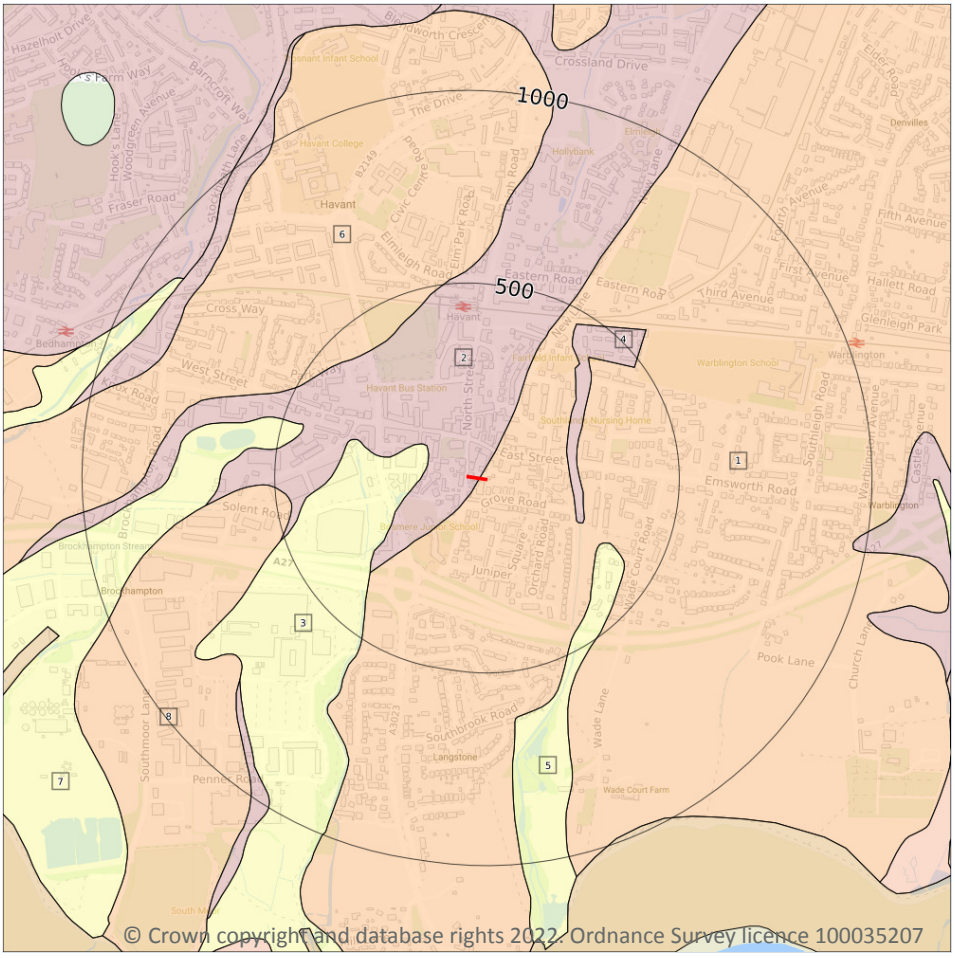
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m **8**

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 98**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**RTDU-XSZC**	**RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)**	**SAND, SILT AND CLAY**
2	**On site**	**HEAD-XCV**	**HEAD**	**CLAY AND GRAVEL**
3	107m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	215m E	HEAD-XCV	HEAD	CLAY AND GRAVEL

ID	Location	LEX Code	Description	Rock description
5	338m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
6	408m NW	RTDU-XSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY
7	444m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
8	462m W	RTDU-XSZC	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND, SILT AND CLAY

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	**2**

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

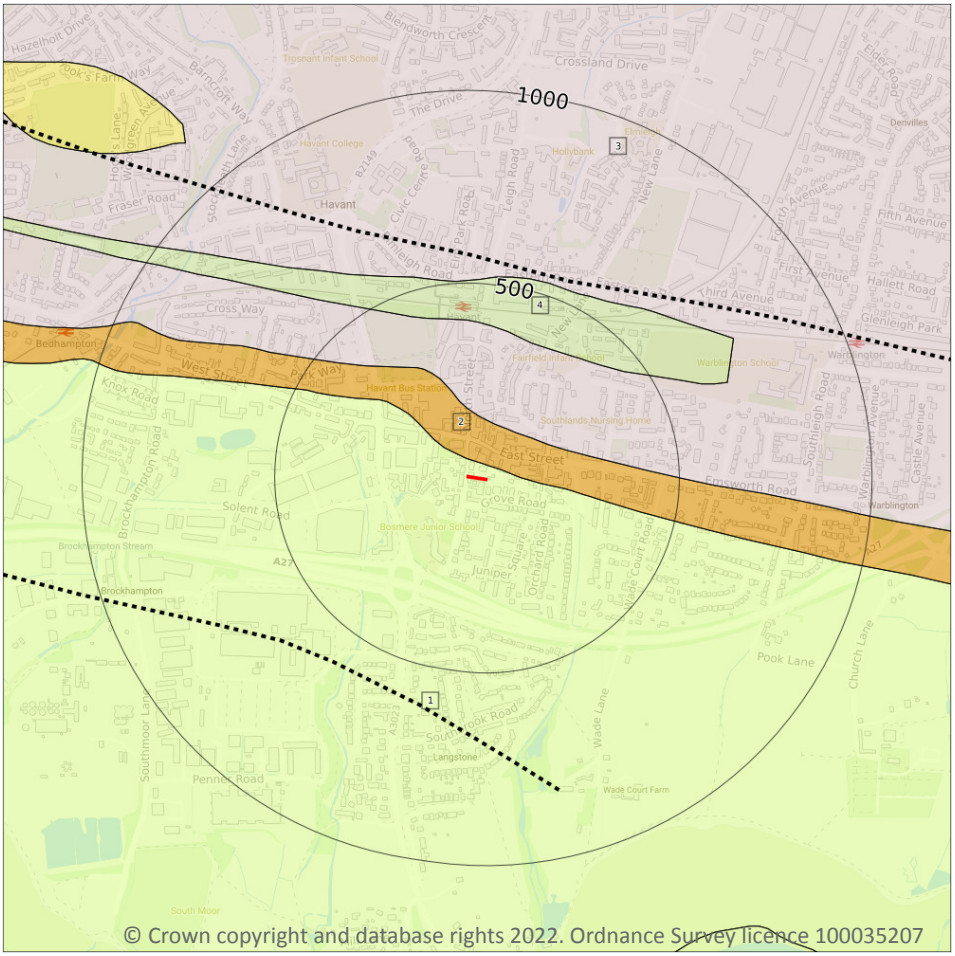
15.7 Landslip permeability (50k)

Records within 50m	**0**

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	4

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 100**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LPCK-CHLK**	**LEWES NODULAR CHALK FORMATION, SEAFORD CHALK FORMATION, NEWHAVEN CHALK FORMATION, CULVER CHALK FORMATION AND PORTSDOWN CHALK FORMATION (UNDIFFERENTIATED) - CHALK**	**TURONIAN**
2	34m N	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN

ID	Location	LEX Code	Description	Rock age
3	140m NE	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN
4	371m N	BOSA-S	BOGNOR SAND MEMBER - SAND	-

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	**2**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of 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**
34m E	Mixed	Moderate	Very Low

This data is sourced from the British Geological Survey.

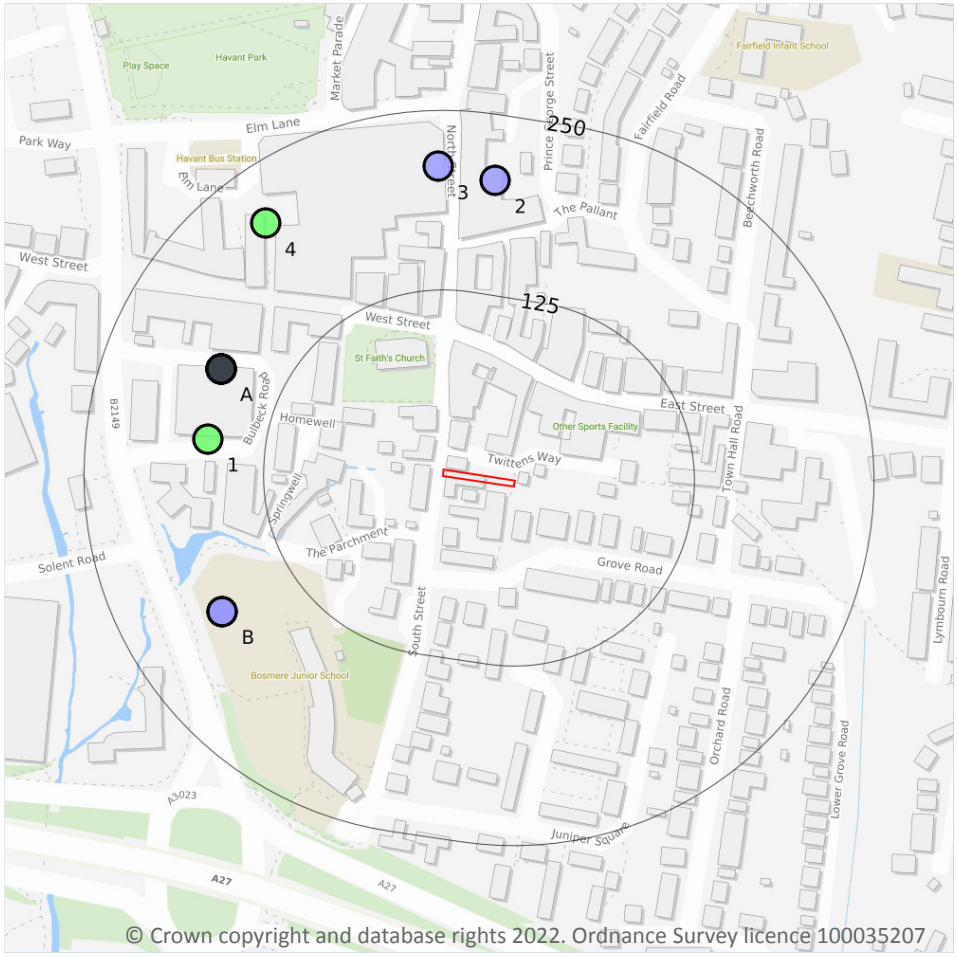
15.10 Bedrock faults and other linear features (50k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

16 Boreholes



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16.1 BGS Boreholes

Records within 250m	13

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.

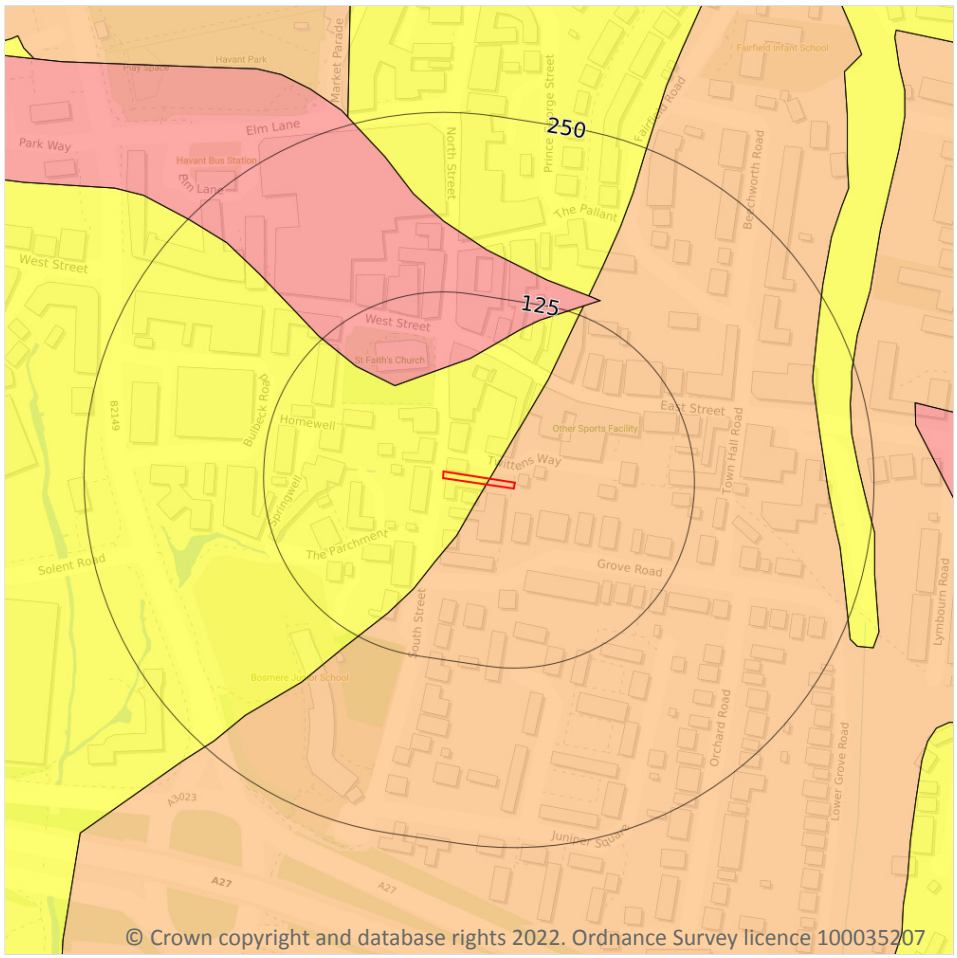
Features are displayed on the Boreholes map on **page 102**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	165m W	471630 106180	WEST ST. CAR PARK BHB	15.0	N	425502
A	170m NW	471639 106229	PARK RD.S. HAVANT TP C	-	Y	N/A
A	170m NW	471639 106229	PARK RD.S. HAVANT TP 2	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	170m NW	471639 106229	PARK RD.S. HAVANT TP B	-	Y	N/A
A	170m NW	471639 106229	PARK RD.S. HAVANT TP D	-	Y	N/A
A	170m NW	471639 106229	PARK RD.S. HAVANT TP 3	-	Y	N/A
A	170m NW	471639 106229	PARK RD.S. HAVANT TP A	-	Y	N/A
A	170m NW	471639 106229	PARK RD.S. HAVANT TP 1	-	Y	N/A
B	180m SW	471640 106060	HAVANT MILL SPRINGS 5	3.0	N	425625
B	180m SW	471640 106060	HAVANT MILL SPRINGS 4	7.01	N	425624
2	204m N	471830 106360	NORTH ST. HAVANT 1-3	4.57	N	425503
3	211m N	471790 106370	NAT.WEST. BANK, WEST ST.	1.21	N	425504
4	211m NW	471670 106330	WEST ST. CAR PARK BHA	15.0	N	425501

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m	2

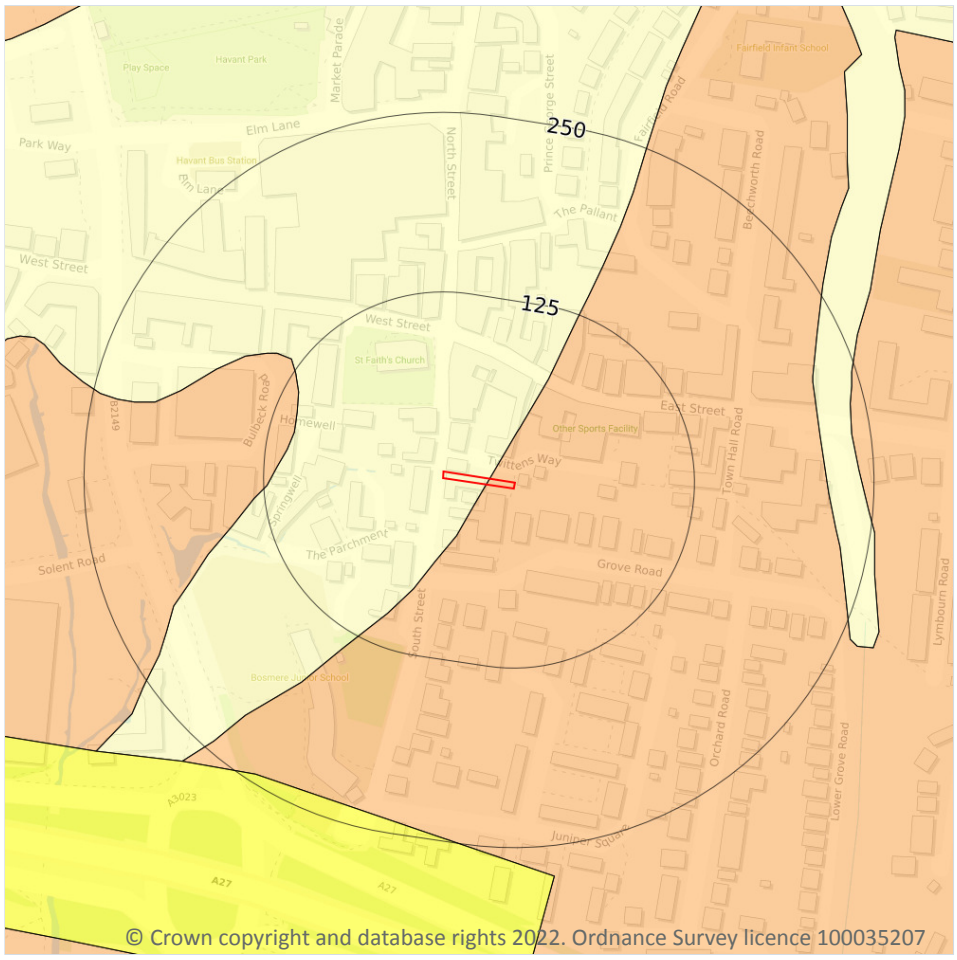
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 104**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m	2

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

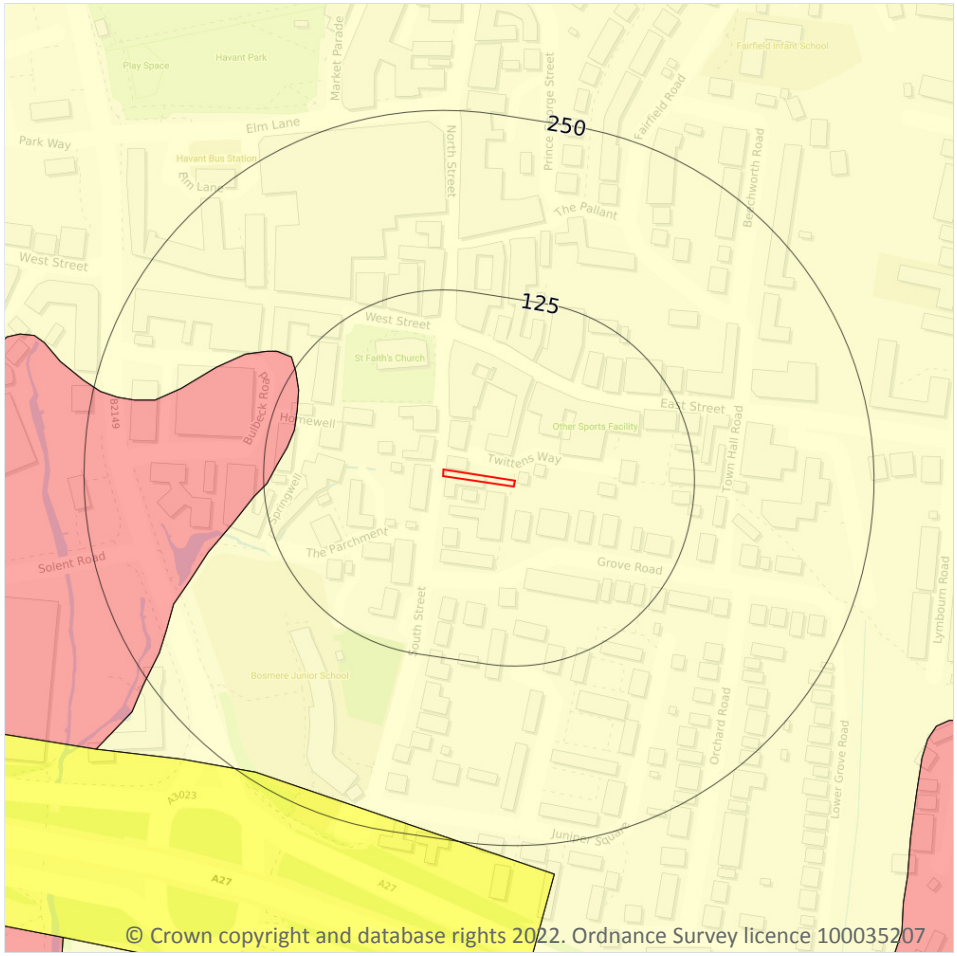
Features are displayed on the Natural ground subsidence - Running sands map on **page 105**

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	**Low**	**Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m	1

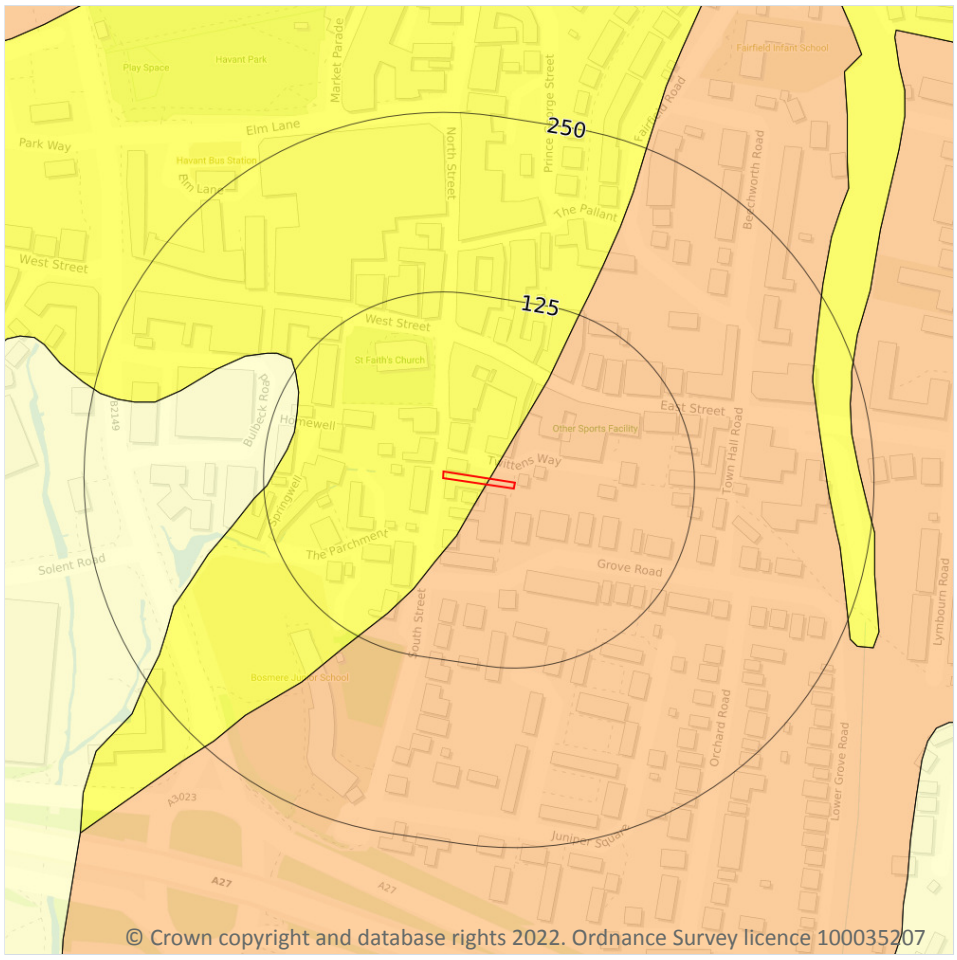
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

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

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m	2

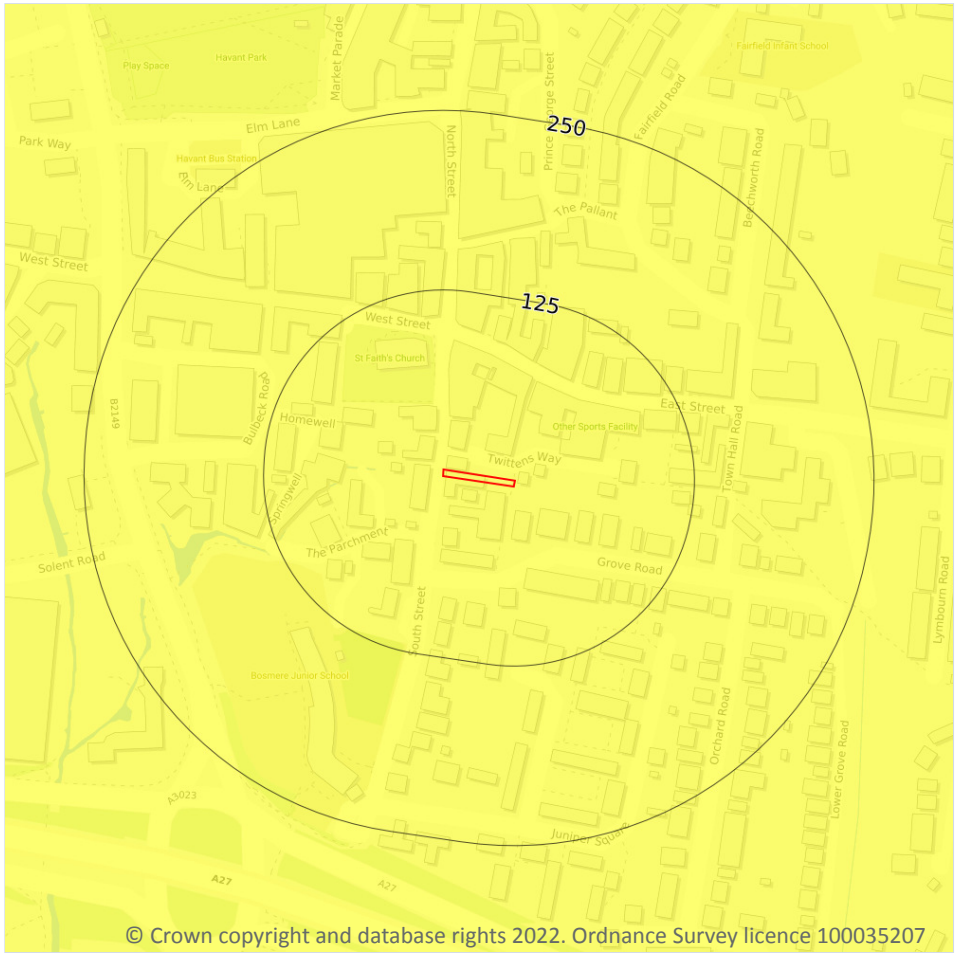
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 108**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m	1

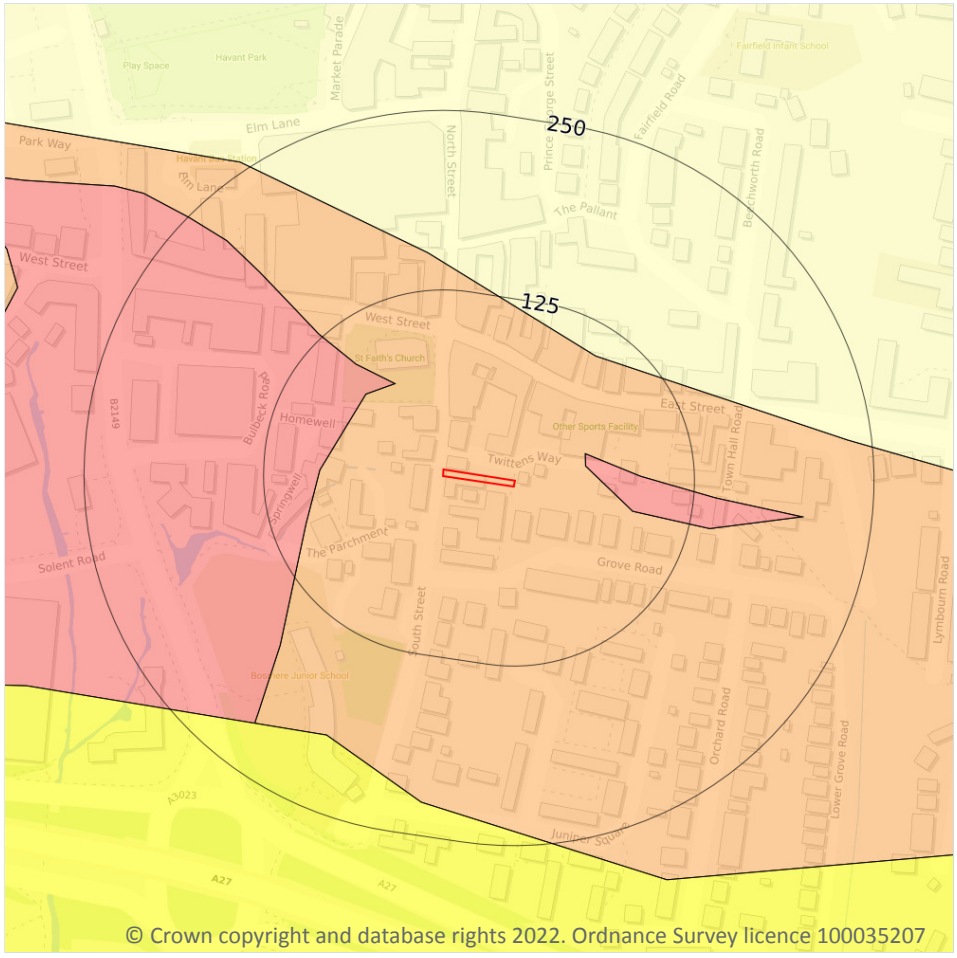
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 109**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m	1

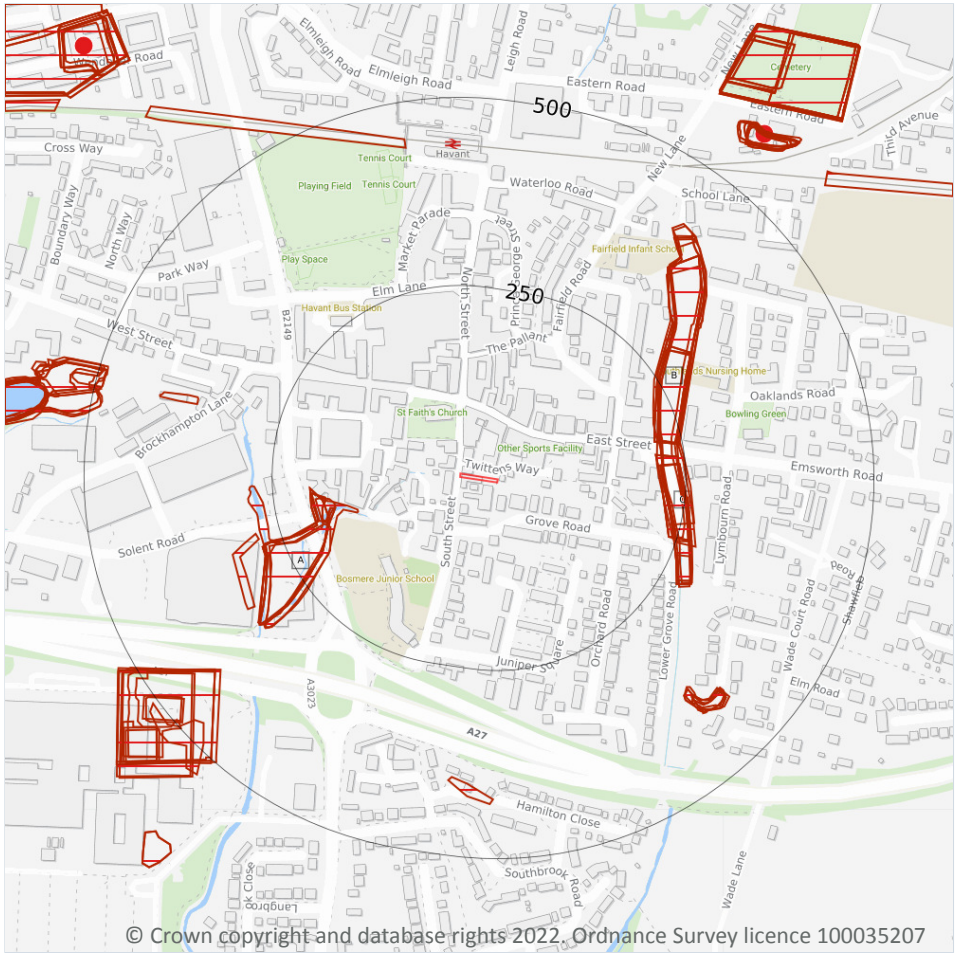
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 110**

Location	Hazard rating	Details
On site	**Low**	**Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.**

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



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Site Outline

Search buffers in metres (m)

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

Non Coal Mining

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

18.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m	28

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 112**

ID	Location	Land Use	Year of mapping	Mapping scale
A	143m W	Water Body	1898	1:10560
A	170m W	Water Body	1931	1:10560
A	171m W	Water Body	1896	1:10560
A	171m W	Water Body	1914	1:10560
A	183m W	Water Body	1942	1:10560
A	183m W	Water Body	1931	1:10560
A	183m W	Water Body	1907	1:10560
A	184m W	Water Body	1932	1:10560
A	185m W	Water Body	1896	1:10560
B	212m E	Cuttings	1896	1:10560
C	213m E	Cuttings	1963	1:10560
C	213m E	Cuttings	1991	1:10000
C	213m E	Cuttings	1973	1:10000
B	214m E	Cuttings	1963	1:10560
B	214m E	Cuttings	1991	1:10000
B	214m E	Cuttings	1973	1:10000
C	217m E	Cuttings	1942	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
C	217m E	Cuttings	1931	1:10560
C	217m E	Cuttings	1907	1:10560
C	217m E	Cuttings	1931	1:10560
B	218m E	Cuttings	1931	1:10560
B	219m E	Cuttings	1898	1:10560
B	220m E	Cuttings	1942	1:10560
B	220m E	Cuttings	1931	1:10560
B	220m E	Cuttings	1907	1:10560
B	220m E	Cuttings	1896	1:10560
B	220m E	Cuttings	1914	1:10560
1	221m E	Cuttings	1932	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	**0**

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	1

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 112**

ID	Location	Name	Commodity	Class	Likelihood
-	986m NW	Not available	Chalk	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

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

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

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

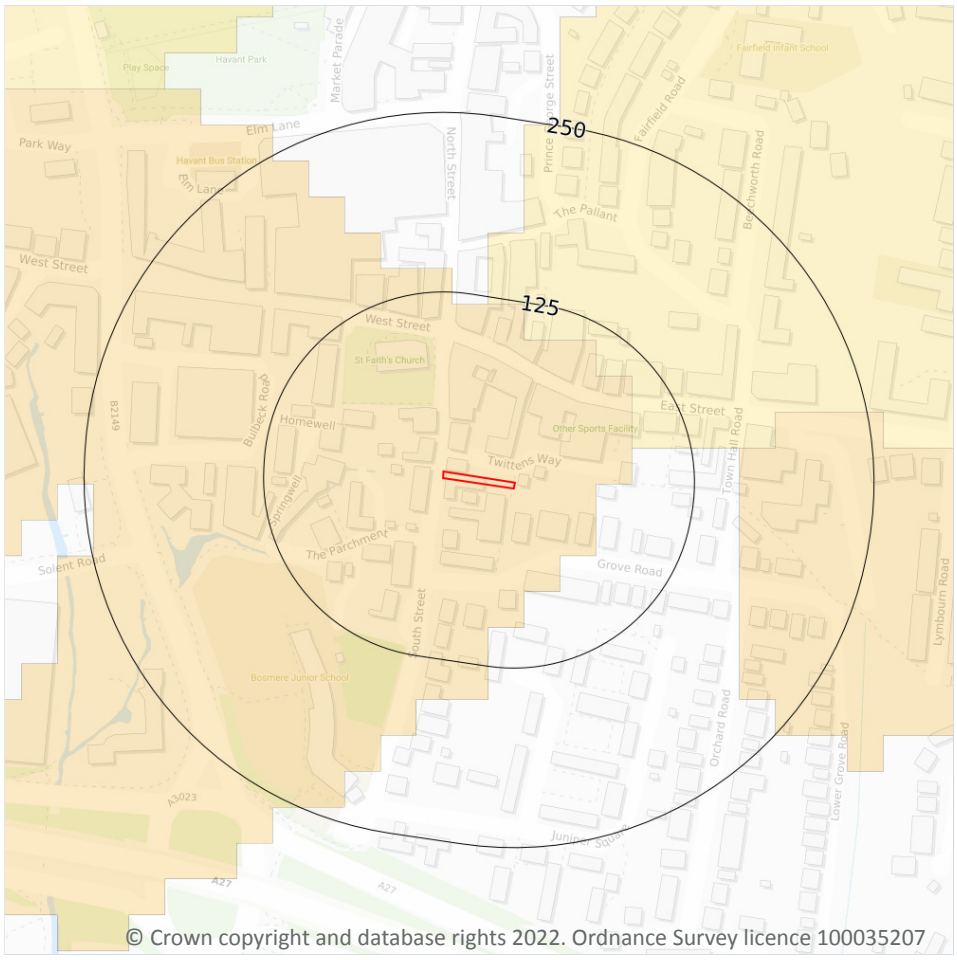
18.13 Clay mining

Records on site	0

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

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

19 Radon



Site Outline

Search buffers in metres (m)

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

19.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 117**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Between 3% and 5%**	**Basic**

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	4

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 mg/kg**	**No data**	**100 - 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**
34m NE	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
35m NW	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

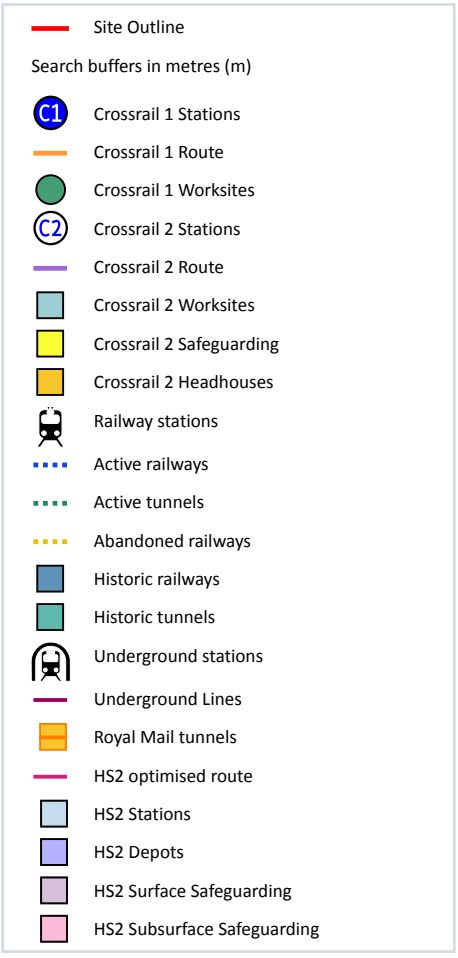
Records within 50m	0

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





21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0

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

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	1

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

Features are displayed on the Railway infrastructure and projects map on **page 120**

Location	Description
227m E	Abandoned

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

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