
Phase I Extended Geoenvironmental Desk Study Report

at Town Park, Berewood,
Waterlooville, P07 3BE

for West Waterlooville
Developments Ltd

Report Reference: LP002962

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EXECUTIVE SUMMARY

The site currently comprises open land, approximately 10 Hectares in area, located to the south of the newly constructed Park Farm Crescent and to the north of the Berewood Skate Park. The site wraps around the southern part of the former Park Farmyard, which is currently being used as builders' compound for the surrounding residential development.

It is proposed to use the site as the Town Park, with footpaths, open fields and sports pitches and a pavilion on the western side.

The site has a history of use as agricultural fields since before 1859 and has remained as open land since. Part of the western area has been land raised to provide a flat area for proposed sport pitches.

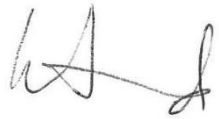
The site is not affected by radon gas.

The site is mapped as being underlain by London Clay, an unproductive stratum. The site is located within an Inner (Zone 1c) source protected zone with regards to subsurface activities due to the Chalk Aquifer which is present at depth underlying the London Clay.

Geotechnical and geoenvironmental investigations have been carried out previously across the site by others and by Leap on the western part of the site. The previous investigations carried out by others in 2019 identified asbestos fibres at one location only, within made ground associated with a farm track which runs centrally through the site. No other asbestos has been visually identified and none of the asbestos screens on the fourteen other samples have detected any other asbestos. At this stage and unless proved otherwise it would be prudent to assume asbestos is present beneath any tracks. If and when the trackways are redeveloped, groundworkers should be made aware that any subbase material, may be contaminated, that appropriate PPE will be required and that the guidance for the control of asbestos must be implemented. It is recommended that made ground areas and tracks are targeted for further testing.

Some reprofiling works have been carried out on the western part of the site and clay soils from the surrounding West Waterlooville redevelopment site have been placed to achieve a level playing areas for proposed sports pitches. Trial holes through the fill have identified some organic material. It is likely that the risk to the development is low, however a gas risk assessment may be required to confirm this.

The desk study has identified pesticides and herbicides as potential contaminants as a result of the historical use for agriculture and testing for the presence of these compounds is recommended where the original soils may be at surface (i.e. unfilled areas).

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A INTRODUCTION

1 Authority

Leap Environmental Ltd (hereafter referred to as **LEAP**) has been appointed by West Waterlooville Development Ltd to undertake an Extended Phase I Desk Study of a site referred to as Town Park, Berewood (Figure 1, Appendix B). The instruction was by email dated 27th May 2022 signed by Chris Williams of Granger PLC.

2 Objective

LEAP understands that the site is currently owned by West Waterlooville Development Ltd and the development of the site comprises the Town Park including the provision of open parkland, sports pitches, new footpaths and landscaping. It is understood that no buildings are proposed other than a cricket pavilion. A proposed layout is shown in Figure 2, Appendix B.

The objectives of this report are to:

- Provide preliminary information on the environmental quality of the ground present on the site with respect to the proposed development;
- Assess the potential health and other environmental risks posed by the site to the proposed development and to other specifically identified receptors; and
- Assess the potential for offsite contamination to adversely affect the proposed development.

3 Previous Studies

LEAP and others have undertaken numerous ground investigations in the local West Waterlooville development area surrounding the site. The following list of reports for the site and immediate surroundings have been referred to within this report:

- Berewood Town Park, Phase B Ground Investigation Report. T & G Regeneration Ltd. Report reference CS-j-016 dated 31/10/19
- Phase 5 Berewood Phase II Investigation **LEAP** report reference LP2557 Dated 15th June 2021 (Adjacent site)
- Proposed Sports Pitches At Berewood Town Park, Phase II Investigation **LEAP** report reference LP2933. At the time of writing **LEAP** were in the process of investigating the western part of the proposed Town Park area, assessing the geotechnical properties of materials that have been placed, in order to reprofile this area.

4 Scope of Works

4.1 Extended Phase I Scope

This report presents the results of a desk study and site reconnaissance. It provides a review of previous site investigations where they have been made available by the Client or where LEAP has been able to locate that information from third party sources. The previous reports referred to are detailed above. The following publicly accessible sources of information¹ have also been reviewed:

- British Geological Survey (BGS) 1:50,000 Series Geological Map Sheet 316 'Fareham' Solid and Drift ed. 30/05/22
- BGS 'Geology of Britain' online viewer accessed on 30/05/2022.
- Defra 'MAGIC' website accessed on 30/05/2022.
- Groundsure.io website accessed on 30/05/2022.
- Groundsure database report (GS-8789990)
- Unexploded WWII aerial delivered bomb (UXB) regional risk maps produced by Zetica

A site reconnaissance was carried out on 6th June 2022.

The desk study and site reconnaissance have been used to develop an initial conceptual site model. The initial site conceptual model is used to identify geotechnical and geoenvironmental hazards and the qualitative degree of risk associated with them. In terms of the geoenvironmental assessment the conceptual site model is used to identify potential sources of contamination, potential receptors and pathways by which the two may be connected. These are known as possible contaminant linkages and it is these contaminant linkages that are key to contaminated land risk assessment.

The Phase I investigation is also referred to as a Preliminary Investigation².

To provide more information this extended Phase I work also comprises limited intrusive investigation and laboratory analysis. The results of these additional work and previous

¹ The report contains British Geological Survey materials ©UKRI 2019 and public sector information licensed under the Open Government Licence v3.0.

² BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites – Code of Practice.

investigation reports have been used to better inform the initial site conceptual model. This phase of site investigation comprised the following tasks:

- 4 No. 0.5m shallow hand pits using hand tool boring apparatus;
- Chemical Laboratory tests including 4 No. LEAP standard soil suite tests.

The intrusive works were completed by LEAP.

Selected samples of soil were scheduled for laboratory testing for a wide range of potential contaminants including metals, hexavalent chromium, speciated PAH (GCMS), TOC, pH, asbestos. The laboratory testing has been carried out by The Environmental Laboratory Ltd at its laboratories in East Sussex.

The final stage in the geoenvironmental assessment comprises a quantitative risk assessment and revision of the preliminary Conceptual Site Model. Preliminary recommendations for remediation have been provided, based on various development assumptions which are detailed in the following section and in the text of this report. The risk assessment has been carried out in accordance with UK industry standards and in particular in accordance with LCRM³ and BS10175:2011+A2:2017.

5 Limitations

This report has been prepared by Leap Environmental Ltd on the basis of information received from a variety of sources which Leap Environmental Ltd believes to be accurate. Nevertheless, Leap Environmental Ltd cannot and does not guarantee the authenticity or reliability of the information it has obtained from others.

Leap Environmental Ltd has used all reasonable skill, care and diligence in the design and execution of this report, taking into account the manpower and resources devoted to it in agreement with the Client. Although every reasonable effort has been made to obtain all relevant information, all potential contamination, environmental constraints or liabilities associated with the site may not necessarily have been revealed.

The conclusions reached in this report are necessarily restricted to those which can be determined from the information consulted and may be subject to amendment in the light of additional information becoming available. These conclusions may not be appropriate for alternative schemes.

³ Environment Agency. Land Contamination Risk Management (LCRM),
<https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

This report is confidential to the Client, and Leap Environmental Ltd accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by Leap Environmental Ltd beforehand. Any such party relies upon the report at their own risk.

Full details of the limitations are provided in Appendix A.

B PHASE I – DESK STUDY

6 Environmental Setting

6.1 Site Location and Description

The site is located at the southern side of the wider Town Park, Berewood as shown in Figure 1, Appendix B.

The approximate National Grid Reference of the site is 467349 108943. The site lies at an estimated elevation of 59m Above Ordnance Datum (mAOD).

6.1.1 General Description and Boundaries

The current site layout is shown in Figure 3, Appendix B. A walkover survey was carried out on 9th June 2022. The Groundsure report is provided as Appendix D.

The site comprises a large area of mostly open land located to the north of the Berewood Skatepark. Immediately north of the central part of the site is Plant Farm, a former farm which is currently being used as a builder's compound. The Town Park site wraps around this former Plant Farm site.

The western part of the site is proposed to be developed with dual purposed cricket and football pitches, and as part of these works, the area has been raised and reprofiled to provide a large level playing area comprising of clay soil.

An approximately 'U' shaped drainage ditch/water course is located in the middle of the site, with several mature trees located within the centre. This area was highly overgrown and access was not possible around the southern most part. It was not possible to ascertain whether water was within the ditch at the time of the walkover survey. The ground within the northern most part to this area had been excavated, presumably to make a pond, with the excavated clay materials placed in a bund nearby. This part of the site was fenced off.

The eastern part of the site comprised mature trees, and footpaths.

Several surface water and potential underground drains/ watercourses were noted across site

6.2 Previous investigations

6.2.1 Berewood Town Park, Phase B Ground Investigation Report. T & G Regeneration Ltd. Report reference CS-j-016 dated 31/10/19

A geotechnical assessment of the soils underling the proposed park site was undertaken by T & G Regeneration Ltd, report reference CS-j-016 dated 31/10/19. The works undertaken included the excavation of 4 trial pits to depths of up to 3.2m, an infiltration test, 7 window sampler boreholes, in situ CBR testing and one cable percussion hole to a depth of 15m b.gl. The investigation identified topsoil overlying the soils of the weathered London Clay. At two locations made ground soils were encountered to 0.45m and 1.10m and these were stated to be associated with the footpaths (which were old farm tracks).

The report stated that geotechnical testing classified the clay as having a medium volume change potential. Undrained shear strengths ranged between 25 and 110 kPa with a design value of 50kPa recommended. In terms of ground aggressivity to concrete the site was reported as class DS2-ACIs. Groundwater was encountered at depths of between 3.30mbgl and 7.30mbgl. The soakaway testing suggested poor infiltration ($3.01\text{E-}06$ m.s) and that traditional soakaways were unlikely to be viable. CBR values were reported to range between 2.3% and 55.1% with a design recommendation of 2.5% given. Whilst a contamination risk assessment was not included, 5 samples of soil (topsoil made ground and Clay) were tested for heavy metals and PAH compounds and two samples screened for asbestos, phenols and petroleum hydrocarbons. Although no comments were made in the report regarding the test results, they were included within the appendix of the report. The contamination results are summarised in the table below

Table 1: Summary of Contamination Testing in T & G Regeneration Ltd Report

Contaminant tested	Recorded Range (mg/kg)	Notes
Arsenic	5.9-12.3	
Cadmium	<0.5	All below limit of detection
Chromium	27.2-49.9	
Hexavalent Chromium	<0.8	All below limit of detection
Copper	8.5-27.9	
Lead	13.8-35.8	
Mercury	<0.5	All below limit of detection
Nickel	9.6-35.7	
Selenium	<1	All below limit of detection
Zinc	51.5-127	
Phenols	< 1 or <5	All below limit of detection

Total PAH	<0.4-0.8	
Speciated TPH	<0.01/1.0-492	
Asbestos	Amosite (fibre bundles)	Asbestos identified in made ground soils at TP03(mg beneath former footpaths) at 0.0m-0.45m. No further quantification given.

6.2.2 Phase 5 Berewood Phase II Investigation LEAP report reference LP2557 Dated 15th June 2021

LEAP has carried out a ground investigation at the Phase 5 Berewood area, which is located immediately west of the proposed sport pitches site. The investigation confirmed the presence of firm to stiff clays to depths of between 1.9m and 2.9m bgl over mudstones or firm clays over interbedded firm clays and medium dense sands. Abundant slight groundwater seepages were encountered across the southern half of the site below ~1.0m (adjacent to the proposed sports pitch site).

6.2.3 Proposed Sports Pitches At Berewood Town Park, Phase II Investigation LEAP report reference LP2933.

LEAP has undertaken intrusive investigation within the proposed sports pitch area. Earthworks have been carried out to provide a flat playing area for proposed cricket and football pitches and it is understood that soil from the surrounding development was used. The intrusive investigation encountered up to 2.6m of made ground, which was noted to contain buried organic material including topsoil, grass/straw and wood. Contamination testing of the made ground indicated the soils were free from any significant contamination when compared to GACs for the proposed end use. However, the fill did not appear to have been placed using an earthworks specification, and the organic material within the made ground was noted to pose a potential land gas risk.

6.3 Geology

The geology of the site has been ascertained by reference to the 1:50,000 British Geological Survey sheet no. 316 (Fareham), solid and drift edition, the BGS website (www.bgs.ac.uk) previous SI and the Groundsure report. The site is mapped as being underlain by London Clay, with the boundary with the Wittering Formation mapped close to the southern boundary of the site.

6.3.1 Solid – Wittering Formation (mapped to the south of the site)

The Wittering Formation are part of the broader Bracklesham Group which are generally formed of interbedded glauconitic shelly sands and sandy clays. The Wittering Formation is the oldest of the Bracklesham Group and is formed of greyish brown inter laminated clays and glauconitic sands. Thin beds of lignite (brown coal) are often found at its base.

Both the Wittering Formation Sands and the Wittering Formation sands silts and clays are shown to occur on site.

6.3.2 Solid – London Clay Formation

The London Clay of the Hampshire Basin consists mainly of bluish grey to dark grey brown silty clay which weathers to brown near the surface. Subordinate beds of and laminae of silt and fine grained sandstone are relatively common at the top and base of the formation and become more widespread towards the western extent of the formation's subcrop. Impersistent beds of well rounded black flint pebbles up to 10cms thick are also found.

Beds of calcareous cement stone concretions up to 0.4m in diameter are present. Phosphate nodules occur rarely

Glaucanite is found within the sandier horizons.

Selenite (calcium sulphate) crystals are found both finely disseminated and within fissures within the clay up to about 10-15m below ground level, resulting from the action of acidic groundwater on calcareous fossil debris. This selenite, if present can result in the need for sulphate protection in subsurface concrete.

6.3.3 BGS boreholes

Sixteen boreholes are mapped on site by the Groundsure database, but they are all marked as confidential. Whilst described as boreholes many of the names suggest they are a combination of boreholes, trial pits and CBR locations, some of which appear in similar locations to the previous works undertaken by others that have been reviewed within this report.

6.4 Hydrogeology

The hydrogeology of the site has been ascertained from the Groundsure database report. The source of the data is reported to be the Environment Agency groundwater vulnerability mapping.

No superficial deposits are mapped.

The Wittering Formation which are mapped to the south of the site are classified as a secondary aquifer whilst the London Clay Formation bedrock is classed as unproductive strata.

The site is situated within an Inner (Zone 1c) of a Groundwater Source Protection Zone (SPZ) with regards to subsurface activities only. This relates to the Chalk Aquifer which is present

at a depth underlying the London Clay (Confined Aquifer). Given the depths to the chalk it is unlikely that site activity will impact this aquifer.

The Groundsure report lists one active abstraction licences within 500m of the subject site. The is location is 443m to the north of the site and is licensed for West Waterlooville Developments Limited and is a surface water abstraction.

No potable water abstractions are licensed within 2000m.

6.5 Hydrology

The Groundsure report lists several surface water features as on site; eight located on the ground surface, six located underground and one where no information is provided. These refer to the “U” shaped drainage ditch in the centre of the site which extends off site to the north; a ditch running the northern boundary, then south alongside Plant Farm and the farm track; and a further ditch running north south in the western site area. The Groundsure data indicates an inland surface waterbody not effected by tidal influences that may contain water all year round.

The closest surface water feature for which the Environment Agency have surface water quality data is the river Potwell Tributary located 882m to the north and with an overall rating of moderate.

As discussed in Section 6.1.1 an excavation was noted in the northern part of the site. It is believed that this may be located in the historical location of a former pond.

The Groundsure report indicates that there are three discharge consents within 500m of the site, the nearest is 273m east of the site and is for the miscellaneous discharges into the Freshwater River from Forest End.

6.6 Flooding

According to the Environment Agency, the site is not located within a flood zone, although a low risk of groundwater flooding extends to the northern site boundary and a moderate risk within 100m.

6.7 Designated Environmentally Sensitive Sites

A review of designated environmentally sensitive sites presented within the Groundsure report has been carried out. The dataset makes reference to a number of sensitive sites including the following:

- Sites of Special Scientific Interest (SSSI);
- Records of National Nature Reserves (NNR);
- Areas of Special Conservation (SAC);

- Records of Special Protection Areas (SPA);
- Records of Ramsar Sites;
- Records of Local Nature Reserves;
- Ancient Woodland Records.

None have been recorded within the immediate vicinity of the site, however 24 designated ancient woodlands have been recorded within 2000m of the site. The nearest site is Alsfordmoor Coppice and is located 112m to the south west of the site.

The site is located within a Nitrate Vulnerable Zone. This is an area where water draining from the land can impact nitrate levels in surface water or groundwater.

6.8 Ground Workings

The Groundsure report records eight historical ground workings identified as ponds, on site dated from 1866 to 1991. These all refer to the pond located on the northern part of the site, where excavations were noted during the walkover survey.

6.9 Mining, Extraction and Natural Cavities

The Groundsure report indicates the site is not situated within an area affected by coal mining.

6.10 Site History

The contaminative and development history of the site has been ascertained with reference to the Ordnance Survey historical maps, and aerial photographs.

In summary the site has been in agricultural use relating to Plant Farm from 1859 to the farm being cleared between 2005 to 2013. Post 2013 the site appears to still be in use for agriculture with the prior plot for Plant Farm being used for material storage possibly relating to the housing construction around Plant Farm Crescent. There is disturbance on the eastern field on the site in 2020 most likely relating to earthworks for the proposed pitches.

6.10.1 Historical Map Evidence

The historical Ordnance Survey maps provided spanned the period from 1859 to present day at scales of 1:1560, 1:10,000 and 1:2,500. The maps are included in full in Appendix E.

Table 3: Summary of Historical Map Evidence

Year	On site	Surrounding area
1859	The site comprises part of a larger open field. A roughly rectangular feature with trees on the boundary is noted on the northern part of the site, adjacent to Plant Farm.	The site is surrounded by open agricultural fields with a path present along the eastern boundary leading north to Plant Farm. Buildings associated with Plant Farm.
1895	The rectangular features appears to be a pond.	
1932	No significant changes.	Small outbuildings are c50m to the north east with the smaller pond of the two no longer mapped.
1952	No significant changes.	Plant Farm has expanded to the north east with additional buildings and greenhouses.
1973	The drainage ditch currently running between the site and the adjacent path is shown along the eastern boundary. A new track is also running west to east along the southern boundary.	North east to south west running drains are located c100m to the north east.
1993	The southern track is no longer present.	No significant changes.
1999	No significant changes.	Several structures are shown present within the wooded area on the east of the site.
2013	No significant changes.	Plant Farm appears to have been cleared/demolished between 2005 to 2013.
2017	No significant changes.	Evidence of storage of materials on the site that was Plant Farm. The land to the north of the site has evidence of being developed into a cluster of houses.
2020	The field on the western half of the site has track marks from heavy machinery and bare soil appearing brown in colour.	The storage on the previous location of Plant Farm has expanded in use with more materials stored. The housing development around Plant Farm Crescent has completed building on the eastern half of its site. To the south c30m of the site a tarmac sports court and skate park has been constructed.

6.11 Unexploded Ordnance (UXO)

The risks from unexploded ordnance have been assessed in accordance with CIRIA guidance⁴. A non-UXO specialist preliminary screening assessment has been carried out. The risks have been assessed by considering firstly the likelihood of military activities on, or in the vicinity of the site as determined from the desk study and historical review. Secondly the risk of UXO

⁴ CIRIA C681 2009. Unexploded ordnance (UXO) - A guide for the construction industry

has been assessed by reference to the unexploded WWII aerial delivered bomb (UXB) regional risk maps produced by Zetica.

The Zetica risk maps indicate a low to moderate risk within the Waterloo area. Pre Desk Study Assessments for the adjacent site, concluded that there was no evidence to suggest UXO on /near the site and that a further more detailed assessment was not considered necessary. Hence the overall risk of UXO across the site is rated as low.

6.12 Waste Planning and Landfill Records

6.12.1 Recorded Landfill Sites

The Environment Agency website and Groundsure report contain details on areas of historic and active landfilling in the vicinity of the site.

There are no areas of active landfills within 500m of the site. The Groundsure report identifies one historic landfill site recorded within 500m, approximately 484m south of the site. This Fielders Park, Purbeck landfill is recorded as having received household waste.

Five waste exemptions are identified within 500m of the site with the closest located 210m to the south-east from a timber yard. None of the exemption activities are likely to impact the site.

6.13 Other Regulatory Records

Three onsite pollution incidents to controlled waters are reported in the Groundsure report. One occurred in July 2001 and had no impacts to water and only minor impacts to land and air. The only other details given are that it involved atmospheric pollutants that had an effect on humans. The other two entries refer to a single date in September 2001 and are categorised as having minor impacts to water and but no air impact.. The pollutants are identified as sewage material. The mapping suggests both of these incidents were located at or close to the excavated pond area in the northern part of the site.

Offsite the closest incidents occurred 241m to the east in June 2001, classified as minor for land impact.

Since 2006 only major pollution incidents have been reported in the dataset and none have been reported for site

6.14 Radon

According to the Groundsure report database search, the site is not within a radon affected area (less than 1% of homes are above the action level for radon). Therefore, no special protective measures are required in the construction of buildings on this site, in respect of radon gas.

C PRELIMINARY CONTAMINATION TESTING

6.1 Additional sampling and testing of shallow soils

The previous geotechnical works carried out on site included some limited contamination testing of the soils encountered during the investigation. To supplement this information and to provide more information on the general contamination status of the soils across the site four samples of the shallow soils (HA1-HA4) were taken by hand auger during the site walkover. The hand augers were non targeted and spread across the site and excavated to depths of between 0.30m and 0.50m. The sample locations are given on Figure 3 in Appendix B. A summary of the soils encountered is given below

- HA1 – Topsoil with rare fine brick to 0.20m overlying stiff clay.
- HA2 – Made ground/ reworked stiff clays to 0.30m overlying buried topsoil to 0.5m. Stiff clay below.
- HA3- Stiff sandy clay.
- HA4- Stiff sandy clay.

Four samples of the shallow samples were taken and sent for laboratory testing to check for the presence of heavy metals, PAH compounds and asbestos. The results are summarised table 5 in section 7.2 below, together with the results of all the testing carried out.

6.2 Preliminary screening of soils to date

The laboratory test results of the contamination testing from the T & G Regeneration Ltd investigation, the cricket pitch site works together with additional sampling have been compared against Soil Assessment Criteria generated for a public open space.

Table 5: Summary of laboratory results and Assessment Criteria

Contaminant	Assessment Criteria Public Open Space (Park) (mg/kg)	T&G Regeneration testing (Four samples) Range (mg/kg)	Recent testing across site (Four samples) Range (mg/kg)	Testing on proposed cricket pitch (Six samples) Range (mg/kg)
Arsenic	3300	5.9-12.3	<1-13.3	6.8-13.1
Cadmium	880	<0.5	<0.5	<0.5
Chromium	33000	27.2-49.9	<5-34	25.3-44.7
Hexavalent Chromium	250	<0.8	<0.8	<0.8
Copper	44000	8.5-27.9	<5-74	15.1-69.8
Lead	1300	13.8-35.8	<5-49.5	15.4-36.8
Mercury	240	<0.5	<0.5	<0.5
Nickel	800	9.6-35.7	<5-30	10.4-33.2

Selenium	1800	<1	<1	<1
Zinc	170000	51.5-127	<5-257	53.2-176
Benzo(a)pyrene	21	<0.1	<0.1	<0.1
Napthalene	3000	<0.1	<0.1	<0.1
Phenols	690	< 1 or <5	Not tested	Not tested
Asbestos	None*	One sample with amosite fibres	None Detected	None detected
Lowest GAC for speciated TPH – Carbon chains 21-35 at 1% SOM)	9200	<0.01/1.0-492	Not tested	Not tested

In total 14 samples of soils from across site have been tested. None of the recorded concentrations in any phase of works undertaken to date on site are above the assessment criteria for a Public Open Space (Park).

D PRELIMINARY RISK ASSESSMENT

7 Preliminary Geoenvironmental Conceptual Site Model

7.1 Approach

A risk based approach is used in the UK to assess contaminated or potentially contaminated land. For a potential risk to exist, there must be a contaminant linkage in place, i.e. there must be a source of contamination, a potential receptor, and a pathway linking the two. The purpose of this preliminary conceptual site model (CSM) was to systematically identify all of the potential contaminant linkages using all the information provided in Section B of this report. The preliminary CSM was then used to enable uncertainties and further assessment requirements to be identified.

7.2 Potential sources of contamination

Based on a review of the available information discussed in Section B of this report the table below provides a summary of the potential plausible current and historical on- and off-site sources with the anticipated nature and distribution of the sources:

Based on a review of the available information discussed in Section B of this report the following sources and potential sources of contamination have been identified:

Table 6: Potential Plausible Sources of Contamination

Potential Source	Potential Contaminants of Concern	Anticipated Distribution
On-Site		
Asbestos already identified beneath a footpath	More potential Asbestos	Likely to be localised beneath existing footpaths.
Land raising on western part of the site	Potential Metals PAHs (None discovered to date) Potential ground gasses from organics	Beneath the land raise on the eastern part of the site. Land gas may migrate away from source.
Two minor pollution incidents have been recorded on site.	One involved sewage therefore potential heavy metals PAHs and high organics. One referred to atmospheric pollutants.	Potentially site wide, but likely to be localised and shallow. Atmospheric pollutants unlikely to effect soils significantly.

Application of pesticides and herbicides as part of agricultural use.	Potential Pesticides and Herbicides	If still present they are likely to be shallow and widespread.
Off-Site		
No Potential offsite sources identified		

7.3 Potential Receptors

In the context of the proposed future land use, the following potential receptors of any ground contamination were identified:

Human Health

- Future site users of the parks, sports pitches and pavilion, neighbouring properties
- Commercial works (pavilion and ground keepers)
- Construction workers

Controlled Waters

- Zone 1c Inner Source Protection Zone (Aquifer at depth)
- Surface Water and underground drainage ditches on site.

7.4 Potential Contaminant Linkages

The potential plausible contaminant linkages are summarised in the table appended in Appendix F and were assigned a qualitative risk classification in line with the guidance presented in Annex 4 of R&D66. The preliminary risk levels were determined following a review of the available desk-based information with the significance of particular contaminant linkages being dependant both upon the likelihood of exposure occurring and the severity of that exposure.

7.4.1 Human Health

Asbestos fibres were encountered during the first investigation at one location only, within made ground soils associated with a farm track. No asbestos contamination was identified in the other fourteen samples that were tested. At this stage it is considered likely that asbestos may be limited to the former farm track ways, although it is noted that farmland can often contain isolated pits of buried asbestos cement waste. The heavy metal and PAH testing to date has not identified any significantly elevated concentrations. However, it is noted that the

combined testing carried out to date is still fairly limited and would not comply with the recommended frequency for a 10 Hectare site.

The proposed sport pitch area, located on the eastern side of the Town Park Site, has been subject to filling, and it is understood that levels have been raised using arising from the surrounding Berewood residential development. From the limited trial pits undertaken by LEAP (Ref LP2933), the soils placed on the eastern part of the site comprised a gravely sandy clay up to 2.6m thick, with organic matter such as decaying roots and grass. Laboratory testing of the soils has not identified any significant concentrations of heavy metals and PAH compounds or any asbestos. Testing of the soil matrix recorded total organic contents of up to 5.3%. Based on the information currently available, including the organic content and the clay-based geology of both placed and undisturbed soils as well as guidance within BS8576⁵ the gas generation potential of the source is assessed to be very low to low. However further works including a gas risk assessment would be required to confirm this, particularly as a cricket pavilion is proposed to the west of the filled area.

Two minor pollution incidents have been recorded on site. They are not considered to pose a significant risk to the site given that they occurred 21 years ago and one involved sewage discharge which is likely to have degraded and that the other was an atmospheric pollution incident.

The site and surrounding area were in use historically for agriculture and as such there is the potential for herbicides and pesticides to have been used across the site

No other significant sources of contamination considered likely to impact the development of the Town Park have been identified by the desk study or by any of the intrusive works undertaken to date.

7.4.2 Controlled Waters

The site is underlain by the London Clay and none of the potential sources of contamination identified are considered likely to impact groundwater. The risk to surface waters is also likely to be minimal.

⁵ BS 8576:2013 Guidance on investigations for ground gas – Permanent gases and volatile organic compounds (VOC's).

8 Conclusions and recommendations

The preliminary risk assessment has identified the following sources of potential contamination:

- Asbestos at one location in made ground soils beneath a former farm track
- Land raising on the western part of the site (with made ground that includes organic matter and may pose a ground gas generation).
- Potential Pesticides and Herbicides from site agricultural use.

To date asbestos has been identified at one location, however it may be prudent to assume it is present beneath any trackways, unless further testing can confirm its absence. If and when the trackways are redeveloped, groundworkers should be made aware that any subbase material, may be contaminated and that appropriate PPE will be required and that the guidance for the control of asbestos needs to be followed. It is recommended that made ground areas are targeted for further testing.

The information available to date indicates that the placed soils on the western part of the site have a low to very low gas generation potential, however a gas risk assessment would be required to fully assess this risk. The assessment should include forensic analysis of the made ground to allow an estimation of the total organic material as a whole, and potentially gas monitoring.

The site has a history of use as agricultural land and therefore there remains a risk that pesticide/herbicide contamination may be present at surface on the unfilled parts of the site.

Based on the findings, further intrusive investigation is recommended across the site to fully assess the geoenvironmental risks. This should include:

- Further sampling along farm tracks for asbestos contamination
- A gas risk assessment for the sports pitch placed ground
- General contamination testing including herbicides and pesticides at an appropriate frequency for the size of the site.

APPENDIX A – Limitations

Limitations

LIMITATIONS

This report is confidential to the Client, and Leap Environmental Ltd accepts no responsibility whatsoever to third parties to whom this report, or any part thereof, is made known, unless formally agreed by Leap Environmental Ltd beforehand. Any such party relies upon the report at their own risk. Unless explicitly agreed otherwise in writing, this report has been prepared under LEAP's standard terms and conditions, as included in the quotation for this works.

This report has been prepared by Leap Environmental Ltd on the basis of information received from a variety of sources which Leap Environmental Ltd believes to be accurate. Nevertheless, Leap Environmental Ltd cannot and does not guarantee the authenticity or reliability of the information it has obtained from others.

Leap Environmental Ltd has used all reasonable skill, care and diligence in the design and execution of this report, taking into account the manpower and resources devoted to it in agreement with the Client. Although every reasonable effort has been made to obtain all relevant information, all potential contamination, environmental constraints or liabilities associated with the site may not necessarily have been revealed. LEAP cannot be held responsible for any disclosures or changes in regulation that are provided post production of this report, and will not automatically update the report.

The conclusions reached in this report are necessarily restricted to those which can be determined from the information consulted, and may be subject to amendment in the light of additional information becoming available. These conclusions may not be appropriate for alternative schemes.

The extent of the exploratory holes, laboratory testing and monitoring undertaken may have been restricted due to a number of factors including accessibility, the presence of buried or overhead services, current development and site usage, timescales or clients specification. The exploratory holes only assess a small proportion of the site area with respect to the site as a whole, and as such may only provide an overall assessment of ground conditions on site. The presence of hotspots of undisclosed contamination or exceptional and unforeseen ground conditions cannot be discounted.

Eurocode 7 gives guidance on the type of sampling, sample quality, number and spacing of intrusive investigations, and number of laboratory tests required. It is intended that the Geotechnical Information section of this report will fulfil the general requirements of the Ground Investigation Report as set out in section 6 of Eurocode7⁶, although this is subject to the restrictions imposed on the investigation as listed above. For geotechnical design, Eurocode 7 requires the Geotechnical Design Report to address both the geotechnical and

⁶ BS EN 1997 Eurocode 7- Geotechnical Design - Part 1: General Rules (2004) and Part 2: Ground Investigation and Testing (2007)

structural aspects of the geotechnical design for both the limit and serviceability states. The Geotechnical Appraisal section of this report will not meet the requirements of a Geotechnical Design Report (GDR), and should therefore be used for preliminary guidance only.

The presence of asbestos may be noted during the site walkover survey, intrusive investigations and/or from the results of contamination testing. However, this report does not constitute an asbestos survey. On this basis, the presence of asbestos on site cannot be discounted and a full asbestos survey should be undertaken.

APPENDIX B – Figures and Drawings

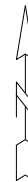
Figures and Drawings



Basemap: © Open street map

	Client:	West Waterlooville Developments	Date:	July 2022	Project ID:	LP2962
	Project:	Town Park, Berewood	Title:	Site Location	Fig. No.	I





Client:	West Waterlooville Developments	Date:	July 2022	Project ID:	LP2962
	Project:	Town Park, Berewood	Title:	T & P Investigation Locations	Fig. No. 4

APPENDIX C – Groundsure Report

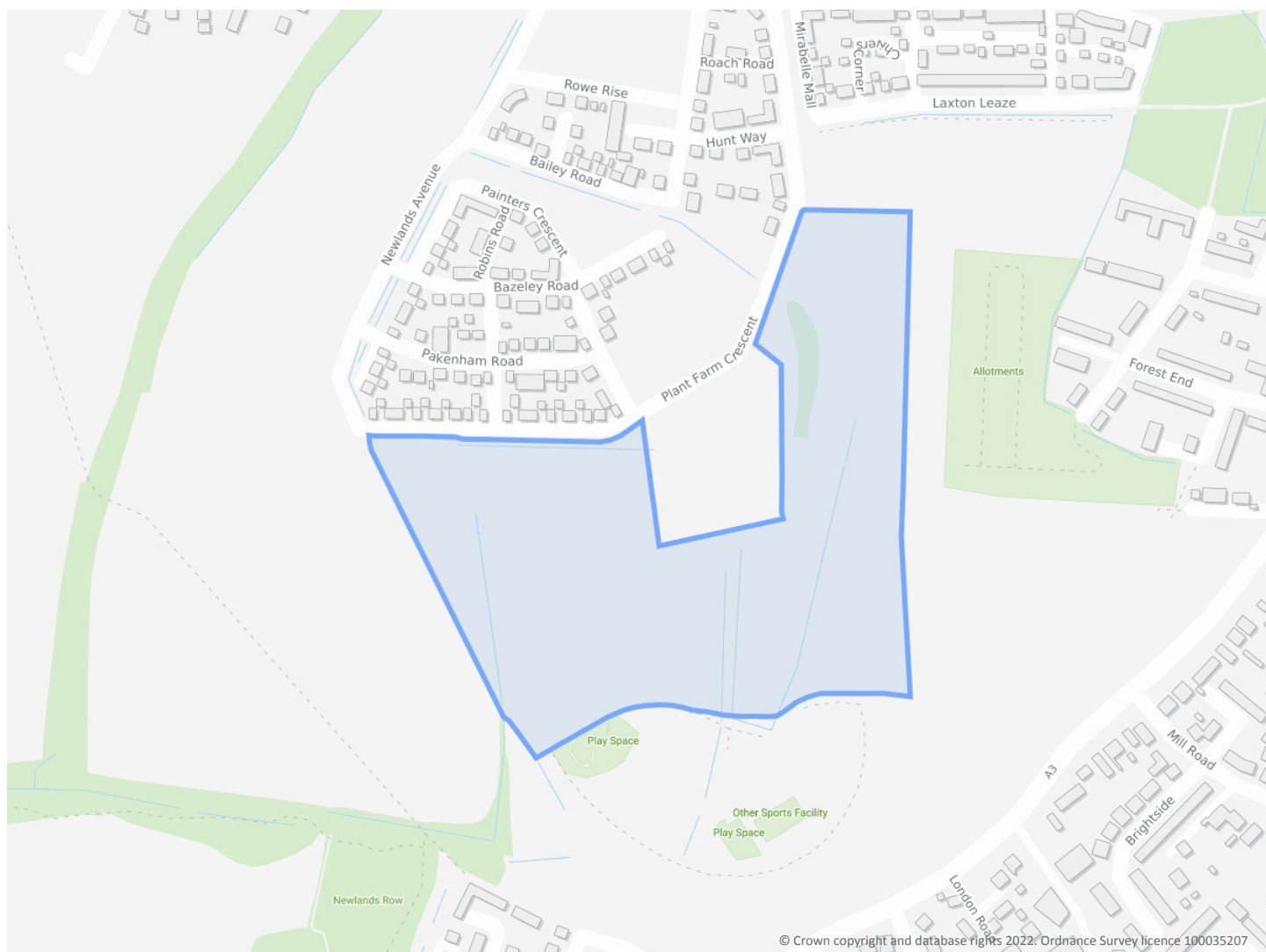
Groundsure report

DUNCAN COOPER HOUSE, FOREST END, WATERLOOVILLE, PO7 7AF**Order Details**

Date: 31/05/2022
Your ref: Town_Park_Berewood_-_LPO-5844
Our Ref: GS-8789990

Site Details

Location: 467349 108943
Area: 10.0 ha
Authority: [Havant Borough Council](#), [Winchester City Council](#)

**Summary of findings**

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.13

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	<u>Historical industrial land uses</u>	0	0	12	11	-
15	1.2	<u>Historical tanks</u>	0	0	3	5	-
16	1.3	<u>Historical energy features</u>	0	0	1	25	-
17	1.4	Historical petrol stations	0	0	0	0	-
18	1.5	<u>Historical garages</u>	0	0	0	4	-
18	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
19	2.1	<u>Historical industrial land uses</u>	0	0	16	13	-
21	2.2	<u>Historical tanks</u>	0	0	3	7	-
21	2.3	<u>Historical energy features</u>	0	0	3	56	-
24	2.4	Historical petrol stations	0	0	0	0	-
24	2.5	<u>Historical garages</u>	0	0	0	5	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
25	3.1	Active or recent landfill	0	0	0	0	-
25	3.2	Historical landfill (BGS records)	0	0	0	0	-
26	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
26	3.4	<u>Historical landfill (EA/NRW records)</u>	0	0	0	1	-
26	3.5	Historical waste sites	0	0	0	0	-
26	3.6	Licensed waste sites	0	0	0	0	-
27	3.7	<u>Waste exemptions</u>	0	0	1	6	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
28	4.1	<u>Recent industrial land uses</u>	0	1	5	-	-
29	4.2	<u>Current or recent petrol stations</u>	0	0	0	2	-
29	4.3	Electricity cables	0	0	0	0	-
29	4.4	Gas pipelines	0	0	0	0	-
30	4.5	Sites determined as Contaminated Land	0	0	0	0	-



30	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
30	4.7	Regulated explosive sites	0	0	0	0	-
30	4.8	Hazardous substance storage/usage	0	0	0	0	-
30	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
31	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
31	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	0	2	-
31	4.12	Radioactive Substance Authorisations	0	0	0	0	-
31	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	3	-
32	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
32	4.15	Pollutant release to public sewer	0	0	0	0	-
32	4.16	List 1 Dangerous Substances	0	0	0	0	-
33	4.17	List 2 Dangerous Substances	0	0	0	0	-
33	4.18	<u>Pollution Incidents (EA/NRW)</u>	3	0	3	1	-
34	4.19	Pollution inventory substances	0	0	0	0	-
34	4.20	Pollution inventory waste transfers	0	0	0	0	-
34	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
35	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
37	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
38	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
39	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
39	5.5	Groundwater vulnerability- local information	None (within 0m)				
40	5.6	Groundwater abstractions	0	0	0	0	0
41	5.7	<u>Surface water abstractions</u>	0	0	0	1	1
41	5.8	Potable abstractions	0	0	0	0	0
42	5.9	Source Protection Zones	0	0	0	0	-
42	5.10	<u>Source Protection Zones (confined aquifer)</u>	1	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
43	6.1	<u>Water Network (OS MasterMap)</u>	15	8	46	-	-



49	6.2	<u>Surface water features</u>	1	4	19	-	-
49	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
50	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
50	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
51	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
51	7.2	Historical Flood Events	0	0	0	-	-
51	7.3	Flood Defences	0	0	0	-	-
52	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
52	7.5	Flood Storage Areas	0	0	0	-	-
53	7.6	Flood Zone 2	None (within 50m)				
53	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
54	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
56	9.1	<u>Groundwater flooding</u>	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
57	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
58	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
58	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
58	10.4	Special Protection Areas (SPA)	0	0	0	0	0
58	10.5	National Nature Reserves (NNR)	0	0	0	0	0
59	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
59	10.7	<u>Designated Ancient Woodland</u>	0	0	1	0	23
60	10.8	Biosphere Reserves	0	0	0	0	0
60	10.9	Forest Parks	0	0	0	0	0
60	10.10	Marine Conservation Zones	0	0	0	0	0
61	10.11	Green Belt	0	0	0	0	0
61	10.12	Proposed Ramsar sites	0	0	0	0	0



61	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
61	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
61	10.15	Nitrate Sensitive Areas	0	0	0	0	0
62	10.16	<u>Nitrate Vulnerable Zones</u>	1	0	0	0	1
63	10.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
64	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
65	11.1	World Heritage Sites	0	0	0	-	-
65	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
65	11.3	National Parks	0	0	0	-	-
65	11.4	Listed Buildings	0	0	0	-	-
66	11.5	Conservation Areas	0	0	0	-	-
66	11.6	Scheduled Ancient Monuments	0	0	0	-	-
66	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
67	12.1	<u>Agricultural Land Classification</u>	Grade 3a (within 250m)				
68	12.2	Open Access Land	0	0	0	-	-
69	12.3	Tree Felling Licences	0	0	0	-	-
69	12.4	Environmental Stewardship Schemes	0	0	0	-	-
69	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
70	13.1	<u>Priority Habitat Inventory</u>	0	0	5	-	-
71	13.2	Habitat Networks	0	0	0	-	-
71	13.3	Open Mosaic Habitat	0	0	0	-	-
71	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
72	14.1	<u>10k Availability</u>	Identified (within 500m)				
73	14.2	Artificial and made ground (10k)	0	0	0	0	-
74	14.3	<u>Superficial geology (10k)</u>	0	0	2	0	-

75	14.4	Landslip (10k)	0	0	0	0	-
76	14.5	<u>Bedrock geology (10k)</u>	1	1	2	0	-
77	14.6	<u>Bedrock faults and other linear features (10k)</u>	0	0	0	1	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
78	15.1	<u>50k Availability</u>	Identified (within 500m)				
79	15.2	Artificial and made ground (50k)	0	0	0	0	-
79	15.3	Artificial ground permeability (50k)	0	0	-	-	-
80	15.4	<u>Superficial geology (50k)</u>	0	0	1	0	-
81	15.5	Superficial permeability (50k)	None (within 50m)				
81	15.6	Landslip (50k)	0	0	0	0	-
81	15.7	Landslip permeability (50k)	None (within 50m)				
82	15.8	<u>Bedrock geology (50k)</u>	1	1	2	0	-
83	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
83	15.10	<u>Bedrock faults and other linear features (50k)</u>	0	0	0	1	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
84	16.1	<u>BGS Boreholes</u>	16	9	33	-	-
Page	Section	Natural ground subsidence					
87	17.1	<u>Shrink swell clays</u>	Low (within 50m)				
88	17.2	<u>Running sands</u>	Low (within 50m)				
90	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
91	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
92	17.5	<u>Landslides</u>	Very low (within 50m)				
93	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
94	18.1	Natural cavities	0	0	0	0	-
95	18.2	BritPits	0	0	0	0	-
95	18.3	<u>Surface ground workings</u>	8	0	1	-	-
95	18.4	Underground workings	0	0	0	0	0
96	18.5	Historical Mineral Planning Areas	0	0	0	0	-



96	18.6	Non-coal mining	0	0	0	0	0
96	18.7	Mining cavities	0	0	0	0	0
96	18.8	JPB mining areas	None (within 0m)				
96	18.9	Coal mining	None (within 0m)				
97	18.10	Brine areas	None (within 0m)				
97	18.11	Gypsum areas	None (within 0m)				
97	18.12	Tin mining	None (within 0m)				
97	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
98	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
99	20.1	<u>BGS Estimated Background Soil Chemistry</u>	6	1	-	-	-
99	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
100	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
101	21.1	Underground railways (London)	0	0	0	-	-
101	21.2	Underground railways (Non-London)	0	0	0	-	-
102	21.3	Railway tunnels	0	0	0	-	-
102	21.4	<u>Historical railway and tunnel features</u>	0	0	1	-	-
102	21.5	Royal Mail tunnels	0	0	0	-	-
102	21.6	Historical railways	0	0	0	-	-
103	21.7	Railways	0	0	0	-	-
103	21.8	Crossrail 1	0	0	0	0	-
103	21.9	Crossrail 2	0	0	0	0	-
103	21.10	HS2	0	0	0	0	-

Recent aerial photograph

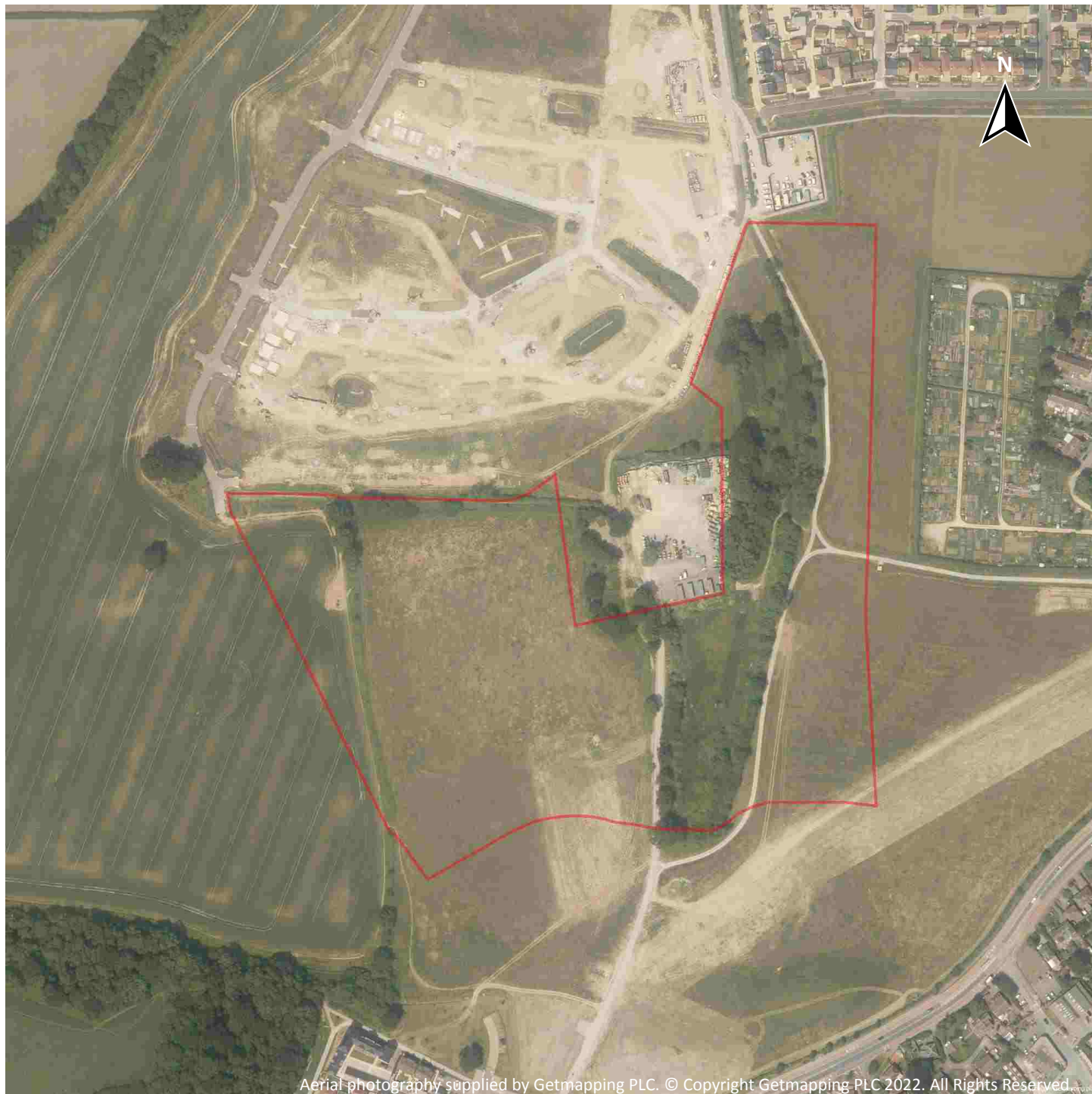


Capture Date: 05/04/2020

Site Area: 10.0ha



Recent site history - 2017 aerial photograph



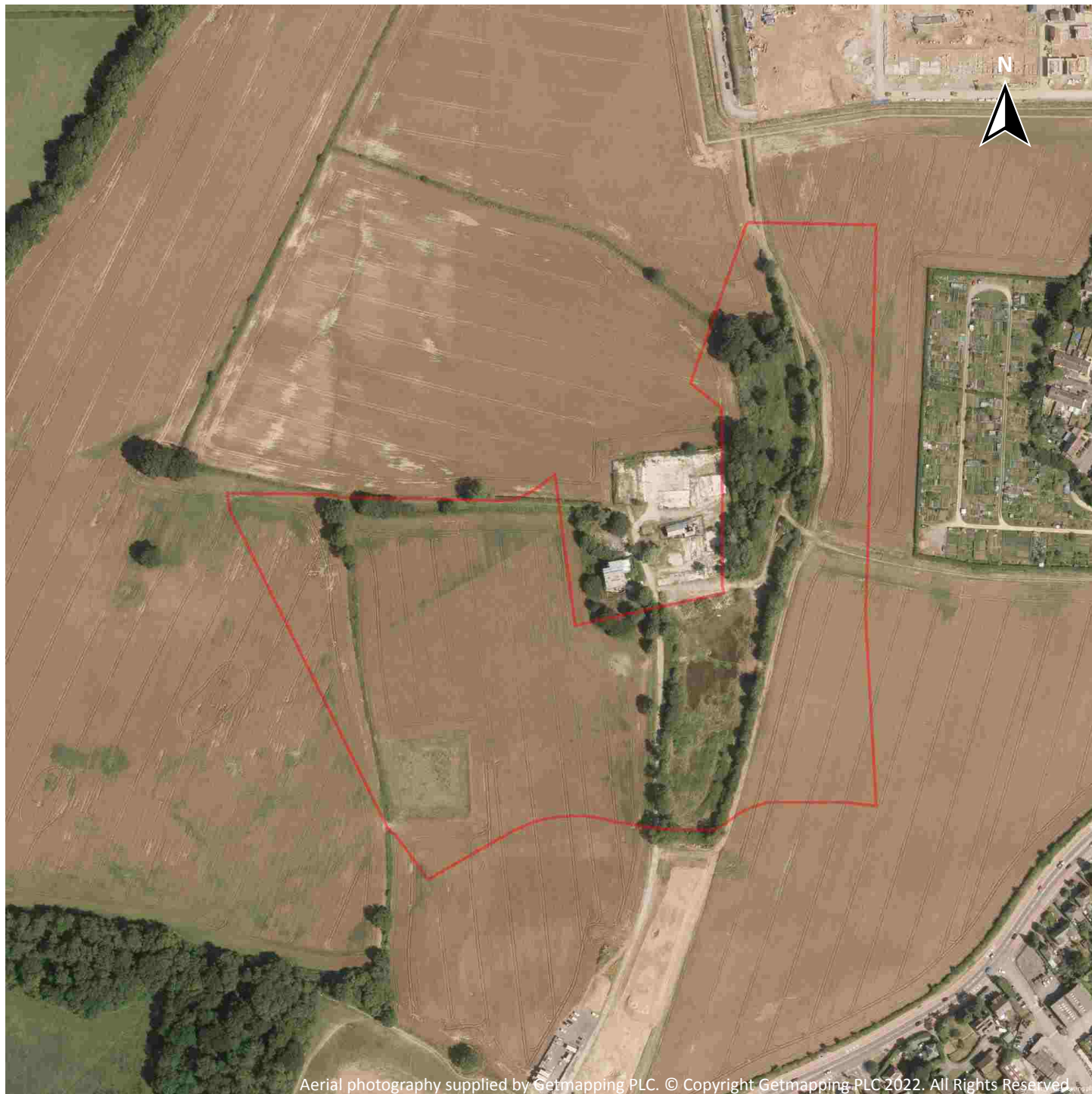
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved

Capture Date: 21/06/2017

Site Area: 10.0ha



Recent site history - 2013 aerial photograph



Capture Date: 20/08/2013

Site Area: 10.0ha



Recent site history - 2005 aerial photograph



Capture Date: 16/05/2005

Site Area: 10.0ha



Recent site history - 1999 aerial photograph



Capture Date: 04/09/1999

Site Area: 10.0ha

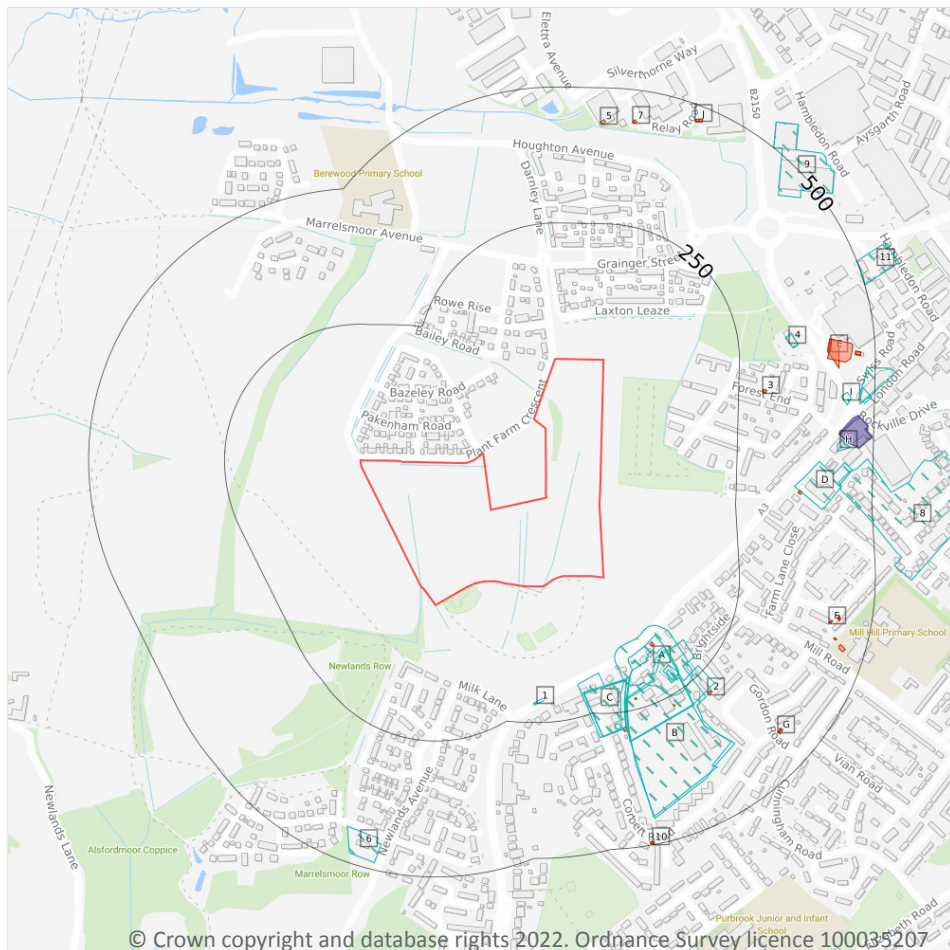


OS MasterMap site plan



Site Area: 10.0ha

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

23

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

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

ID	Location	Land use	Dates present	Group ID
A	122m SE	Sawmills	1895	1957780



ID	Location	Land use	Dates present	Group ID
A	142m SE	Sawmills	1907 - 1938	1957709
A	162m SE	Sawmills	1930	1908604
A	164m S	Saw Pit	1866	1862606
B	175m SE	Unspecified Mills	1963	1870342
C	176m S	Nursery	1963	1930044
B	178m SE	Timber Yard	1980 - 1991	1945767
C	191m S	Nursery	1930	1901782
C	194m S	Nursery	1930 - 1938	1960084
A	200m SE	Sawmills	1898	1953303
1	205m S	Smithy	1866	1876073
A	207m SE	Windmill	1866	1873050
C	270m S	Unspecified Tank	1963	1859091
4	337m E	Fire Station	1991	1874267
D	357m E	Telephone Exchange	1980 - 1991	1963873
H	434m E	Smithy	1866	1876074
6	438m S	Gas Valve Compound	1991	1863877
8	439m E	Nursery	1963	1867648
I	439m E	Fire Station	1980	1874268
9	442m NE	Unspecified Stores	1991	1864477
I	473m E	Smithy	1898 - 1907	1963930
I	473m E	Smithy	1895	1907281
11	499m E	Brick Field	1866	1884675

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

8

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or



succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped 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	229m S	Unspecified Tank	1989	322036
A	229m S	Unspecified Tank	1973	315658
A	230m S	Unspecified Tank	1993	322480
A	266m SE	Unspecified Tank	1989	316767
A	267m SE	Unspecified Tank	1973	319898
A	269m SE	Unspecified Tank	1993	325605
5	433m N	Tanks	1993	311369
H	487m E	Unspecified Tank	1984 - 1993	313042

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

26

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 ungrouped 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	148m SE	Electricity Substation	1973 - 1993	200421
C	278m S	Electricity Substation	1973 - 1993	205345
2	287m SE	Electricity Substation	1973	191088
3	294m E	Electricity Substation	1972 - 1993	199284
D	364m E	Electricity Substation	1972 - 1993	202910
E	412m E	Electricity Substation	1993	193098
E	412m E	Electricity Substation	1972 - 1990	209971
E	413m E	Electricity Substation	1982 - 1990	196187



ID	Location	Land use	Dates present	Group ID
F	424m E	Electricity Substation	1989	191089
G	427m SE	Electricity Substation	1989	209082
G	428m SE	Electricity Substation	1973 - 1993	208114
F	436m E	Electricity Substation	1973	193721
F	436m E	Electricity Substation	1993	194582
F	438m E	Electricity Substation	1973 - 1993	207995
7	439m N	Electricity Substation	1993	191087
F	439m E	Electricity Substation	1973	195657
F	439m E	Electricity Substation	1987	192487
F	439m E	Electricity Substation	1990	193552
F	439m E	Electricity Substation	1990	193891
F	451m E	Electricity Substation	1983	191090
E	463m E	Electricity Substation	1974 - 1989	199621
E	463m E	Electricity Substation	1993	195285
J	469m N	Electricity Substation	1987 - 1989	202135
J	471m N	Electricity Substation	1993	202927
H	485m E	Electricity Substation	1989 - 1993	209361
10	493m S	Electricity Substation	1974 - 1993	206912

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 ungrouped 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

4

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 ungrouped 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
H	437m E	Garage	1965	63250
H	437m E	Garage	1974	61567
H	437m E	Garage	1993	62238
H	438m E	Garage	1984 - 1989	63371

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

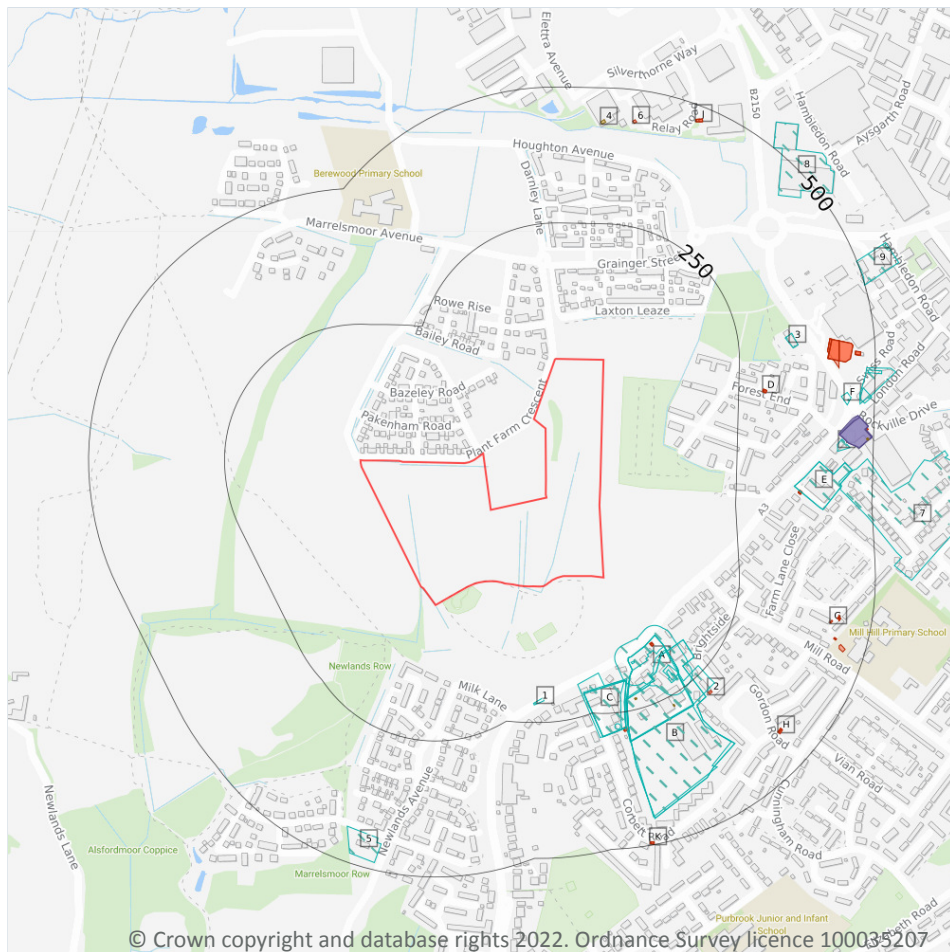
Records within 500m

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

29

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 19**

ID	Location	Land Use	Date	Group ID
A	122m SE	Sawmills	1895	1957780
A	142m SE	Sawmills	1938	1957709
A	142m SE	Sawmills	1930	1957709



ID	Location	Land Use	Date	Group ID
A	142m SE	Sawmills	1907	1957709
A	162m SE	Sawmills	1930	1908604
A	164m S	Saw Pit	1866	1862606
B	175m SE	Unspecified Mills	1963	1870342
C	176m S	Nursery	1963	1930044
B	178m SE	Timber Yard	1991	1945767
B	178m SE	Timber Yard	1980	1945767
C	191m S	Nursery	1930	1901782
C	194m S	Nursery	1938	1960084
C	194m S	Nursery	1930	1960084
A	200m SE	Sawmills	1898	1953303
1	205m S	Smithy	1866	1876073
A	207m SE	Windmill	1866	1873050
C	270m S	Unspecified Tank	1963	1859091
3	337m E	Fire Station	1991	1874267
E	357m E	Telephone Exchange	1991	1963873
E	357m E	Telephone Exchange	1980	1963873
I	434m E	Smithy	1866	1876074
5	438m S	Gas Valve Compound	1991	1863877
7	439m E	Nursery	1963	1867648
F	439m E	Fire Station	1980	1874268
8	442m NE	Unspecified Stores	1991	1864477
F	473m E	Smithy	1907	1963930
F	473m E	Smithy	1895	1907281
F	487m E	Smithy	1898	1963930
9	499m E	Brick Field	1866	1884675

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

10

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 19**

ID	Location	Land Use	Date	Group ID
A	229m S	Unspecified Tank	1989	322036
A	229m S	Unspecified Tank	1973	315658
A	230m S	Unspecified Tank	1993	322480
A	266m SE	Unspecified Tank	1989	316767
A	267m SE	Unspecified Tank	1973	319898
A	269m SE	Unspecified Tank	1993	325605
4	433m N	Tanks	1993	311369
I	487m E	Unspecified Tank	1984	313042
I	487m E	Unspecified Tank	1989	313042
I	488m E	Unspecified Tank	1993	313042

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

59

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 19**

ID	Location	Land Use	Date	Group ID
A	148m SE	Electricity Substation	1989	200421
A	148m SE	Electricity Substation	1973	200421
A	150m SE	Electricity Substation	1993	200421
C	278m S	Electricity Substation	1989	205345



ID	Location	Land Use	Date	Group ID
C	278m S	Electricity Substation	1973	205345
C	280m S	Electricity Substation	1993	205345
2	287m SE	Electricity Substation	1973	191088
D	294m E	Electricity Substation	1982	199284
D	294m E	Electricity Substation	1989	199284
D	294m E	Electricity Substation	1990	199284
D	295m E	Electricity Substation	1993	199284
D	295m E	Electricity Substation	1973	199284
D	296m E	Electricity Substation	1972	199284
E	364m E	Electricity Substation	1982	202910
E	364m E	Electricity Substation	1989	202910
E	364m E	Electricity Substation	1990	202910
E	364m E	Electricity Substation	1989	202910
E	364m E	Electricity Substation	1990	202910
E	364m E	Electricity Substation	1993	202910
E	365m E	Electricity Substation	1973	202910
E	365m E	Electricity Substation	1972	202910
F	412m E	Electricity Substation	1989	209971
F	412m E	Electricity Substation	1990	209971
F	412m E	Electricity Substation	1993	193098
F	413m E	Electricity Substation	1982	196187
F	413m E	Electricity Substation	1989	196187
F	413m E	Electricity Substation	1990	196187
F	413m E	Electricity Substation	1972	209971
F	413m E	Electricity Substation	1973	209971
G	424m E	Electricity Substation	1989	191089
H	427m SE	Electricity Substation	1989	209082
H	428m SE	Electricity Substation	1973	208114



ID	Location	Land Use	Date	Group ID
H	429m SE	Electricity Substation	1993	208114
F	433m E	Electricity Substation	1984	209971
F	433m E	Electricity Substation	1989	209971
F	434m E	Electricity Substation	1974	209971
G	436m E	Electricity Substation	1973	193721
G	436m E	Electricity Substation	1993	194582
G	438m E	Electricity Substation	1989	207995
G	438m E	Electricity Substation	1973	207995
6	439m N	Electricity Substation	1993	191087
G	439m E	Electricity Substation	1993	207995
G	439m E	Electricity Substation	1973	195657
G	439m E	Electricity Substation	1987	192487
G	439m E	Electricity Substation	1990	193891
G	439m E	Electricity Substation	1990	193552
G	451m E	Electricity Substation	1983	191090
F	463m E	Electricity Substation	1974	199621
F	463m E	Electricity Substation	1984	199621
F	463m E	Electricity Substation	1989	199621
F	463m E	Electricity Substation	1993	195285
J	469m N	Electricity Substation	1987	202135
J	470m N	Electricity Substation	1989	202135
J	471m N	Electricity Substation	1993	202927
I	485m E	Electricity Substation	1989	209361
I	485m E	Electricity Substation	1993	209361
K	493m S	Electricity Substation	1989	206912
K	493m S	Electricity Substation	1974	206912
K	494m S	Electricity Substation	1993	206912

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**5**

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'.

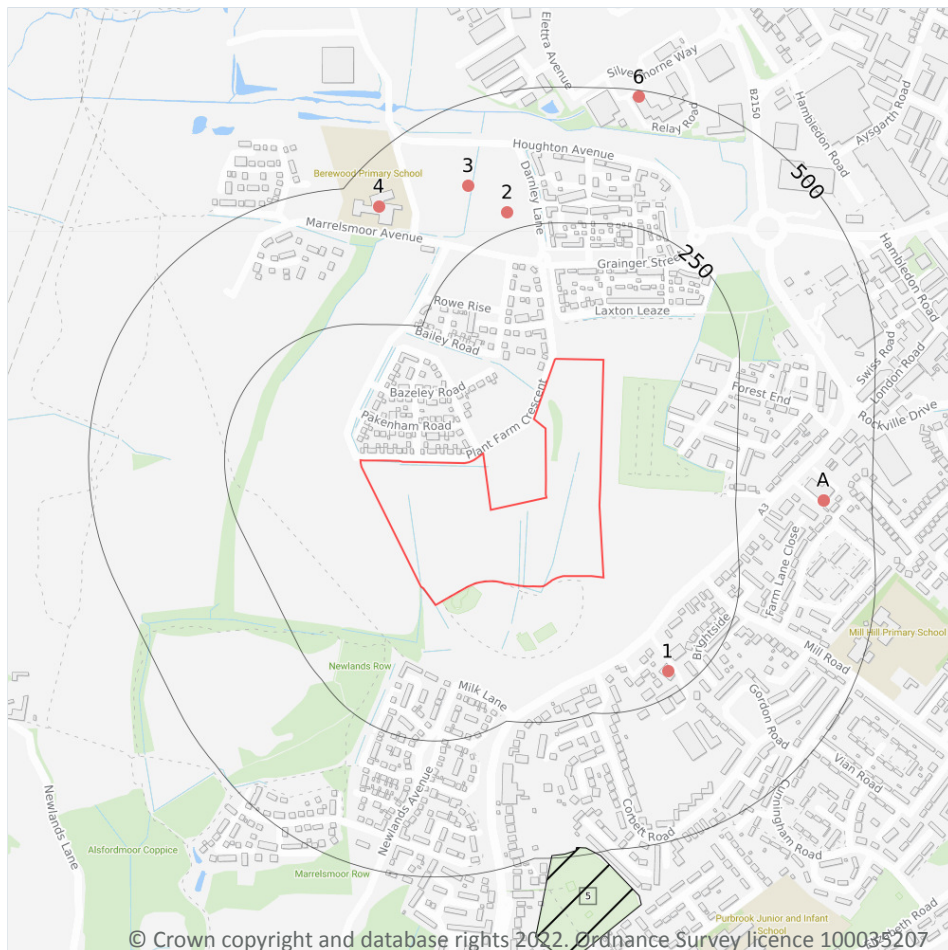
Features are displayed on the Past land use - un-grouped map on **page 19**

ID	Location	Land Use	Date	Group ID
I	437m E	Garage	1965	63250
I	437m E	Garage	1974	61567
I	437m E	Garage	1993	62238
I	438m E	Garage	1984	63371
I	438m E	Garage	1989	63371

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (EA/NRW)
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

1

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.

Features are displayed on the Waste and landfill map on **page 25**

ID	Location	Details		
5	484m S	Site Address: Fielders Park, Purbrook Licence Holder Address: -	Waste Licence: - Site Reference: FHA13 Waste Type: Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: - Licence Surrender: -	Operator: - Licence Holder: - First Recorded - Last Recorded: -

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

7

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.

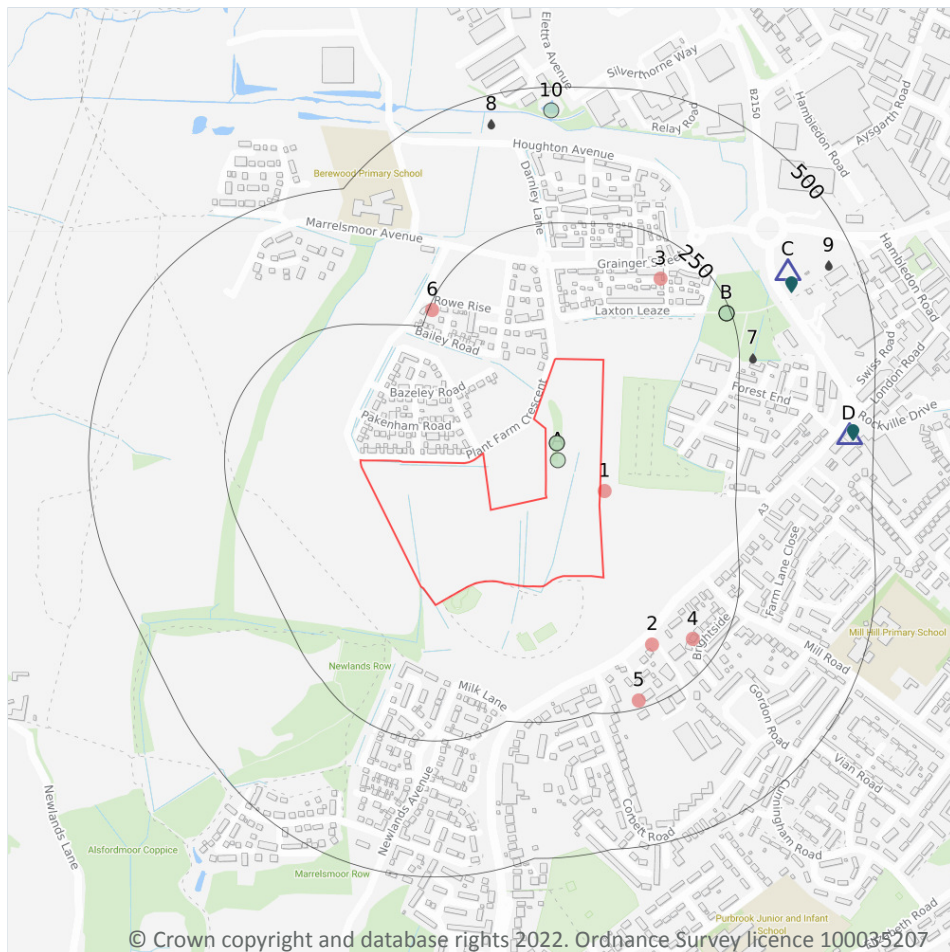
Features are displayed on the Waste and landfill map on **page 25**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	210m SE	TIMBER CENTRE, 154, LONDON ROAD, WATERLOOVILLE, PO7 5SR	WEX123040	Using waste exemption	Not on a farm	Use of waste in construction
2	283m N	Baram on behalf of Bloor Homes Maurepas Way WaterlooVille PO7 7PS	EPR/XF0308KZ /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
3	356m NW	Berewood Development WaterlooVille Hampshire PO7 7PS	EPR/YF0434D M/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
A	410m E	Security House, 212-218 London Road, WaterlooVille, PO7 7AJ	WEX236431	Storing waste exemption	Not on a farm	Storage of waste in secure containers
A	410m E	Security House, 212-218 London Road, WaterlooVille, PO7 7AJ	WEX236431	Storing waste exemption	Not on a farm	Storage of waste in a secure place
4	429m NW	-	WEX263767	Using waste exemption	Not on a farm	Use of waste in construction
6	487m N	MCS Construction Site, Land off Houghton Av., Barewood, WaterlooVille, PO7 7XY	WEX163221	Using waste exemption	Not on a Farm	Use of waste in construction

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ 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

6

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 28**

ID	Location	Company	Address	Activity	Category
1	8m E	Electricity Sub Station	Hampshire, PO7	Electrical Features	Infrastructure and Facilities
2	152m SE	Electricity Sub Station	Hampshire, PO7	Electrical Features	Infrastructure and Facilities
3	182m NE	Electricity Sub Station	Hampshire, PO7	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
4	199m SE	Innovate Projects Ltd	16, Brightside, Waterlooville, Hampshire, PO7 7BA	Building and Component Suppliers	Construction Services
5	235m S	Tank	Hampshire, PO7	Tanks (Generic)	Industrial Features
6	243m W	Electricity Sub Station	Hampshire, PO7	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	2
----------------------------	----------

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 28**

ID	Location	Company	Address	LPG	Status
C	377m NE	ASDA	Maurepass Way, Waterlooville, Hampshire, PO7 7XR	No	Open
D	454m E	SHELL	222, London Road, Rockville Drive, Waterlooville, Hampshire, PO7 7AA	No	Open

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

2

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 28**

ID	Location	Address	Details	
C	371m E	ASDA Stores Ltd, ASDA WaterlooVille, Portland Road, WaterlooVille, PO7 7XR	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
D	460m E	Shell UK Ltd, 222 London Road, WaterlooVille, PO7 7AA	Process: Unloading of Petrol into Storage at Service Stations 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

3

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 28**

ID	Location	Address	Details	
7	273m E	FOREST END, WATERLOOVILLE HAMPSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: P00032 Permit Version: 1 Receiving Water: FRESHWATER RIVER	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 27/03/1985 Effective Date: 27/03/1985 Revocation Date: 23/08/1999
8	447m N	BRAMBLES FARM, WATERLOOVILLE HAMPSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01167 Permit Version: 1 Receiving Water: FRESHWATER RIVER	Status: REVOKED UNDER EPR 2010 Issue date: 07/09/1982 Effective Date: 07/09/1982 Revocation Date: 27/12/2016
9	448m NE	WEST QUADRANT, HAMBLEDON RD/LONDON RD, WATERLOOVILLE HAMPSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: N01251 Permit Version: 1 Receiving Water: FRESHWATER RIVER	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 06/12/1978 Effective Date: 06/12/1978 Revocation Date: 31/03/1997

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

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

7

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 28**

ID	Location	Details	
A	On site	Incident Date: 24/07/2001 Incident Identification: 18736 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Effects on Humans	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
A	On site	Incident Date: 07/09/2001 Incident Identification: 29602 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
A	On site	Incident Date: 07/09/2001 Incident Identification: 29602 Pollutant: Sewage Materials Pollutant Description: Other Sewage Material	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	241m E	Incident Date: 22/06/2001 Incident Identification: 10749 Pollutant: Inert Materials and Wastes:Sewage Materials Pollutant Description: Other Inert Material or Waste:Crude Sewage	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	241m E	Incident Date: 22/06/2001 Incident Identification: 10749 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
B	241m E	Incident Date: 22/06/2001 Incident Identification: 10749 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)



ID	Location	Details	
10	456m N	Incident Date: 07/06/2002 Incident Identification: 83507 Pollutant: Contaminated Water Pollutant Description: Other Contaminated Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0
----------------------------	----------

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0
----------------------------	----------

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

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

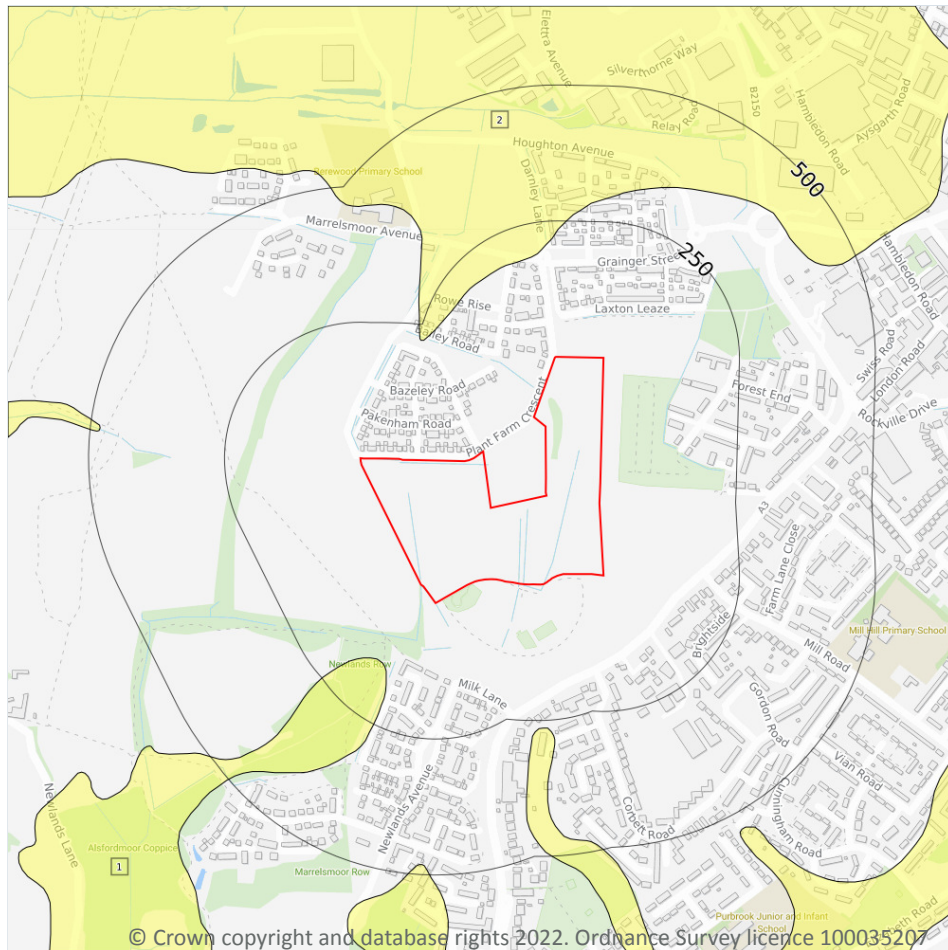
4.21 Pollution inventory radioactive waste

Records within 500m	0
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The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

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

5 Hydrogeology - Superficial aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 35**

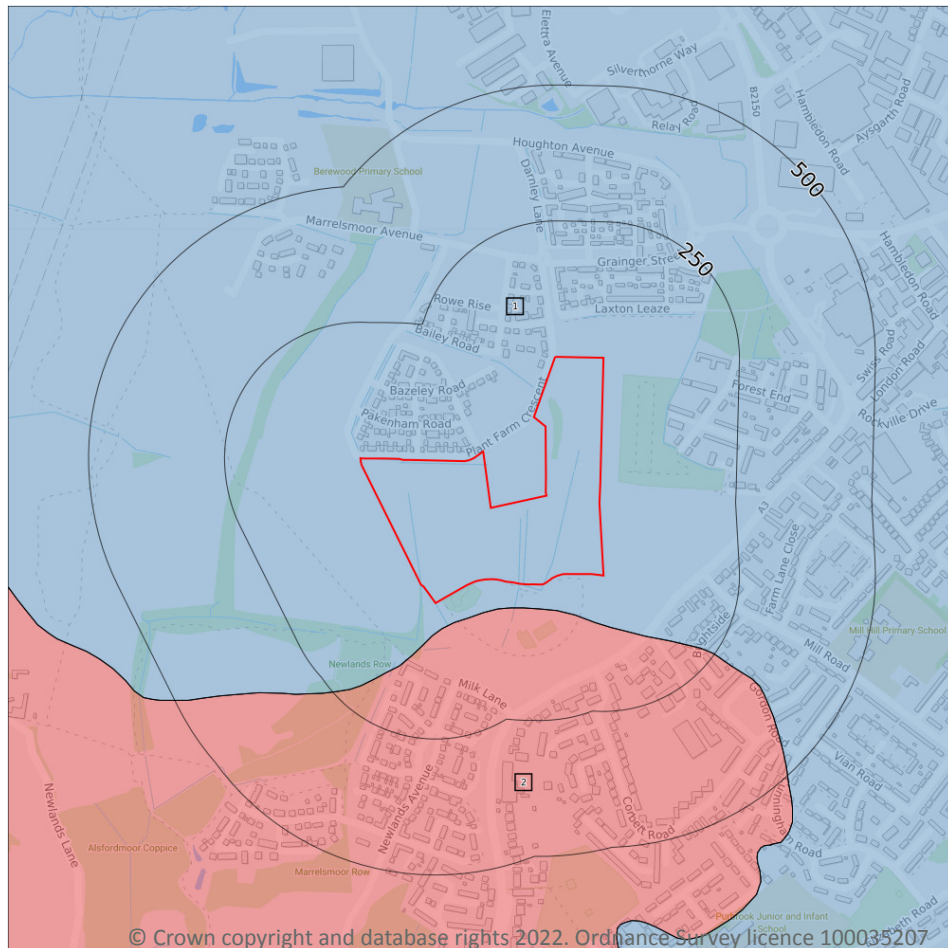
ID	Location	Designation	Description
1	147m SW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	188m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type



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



Bedrock aquifer



- Site Outline
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

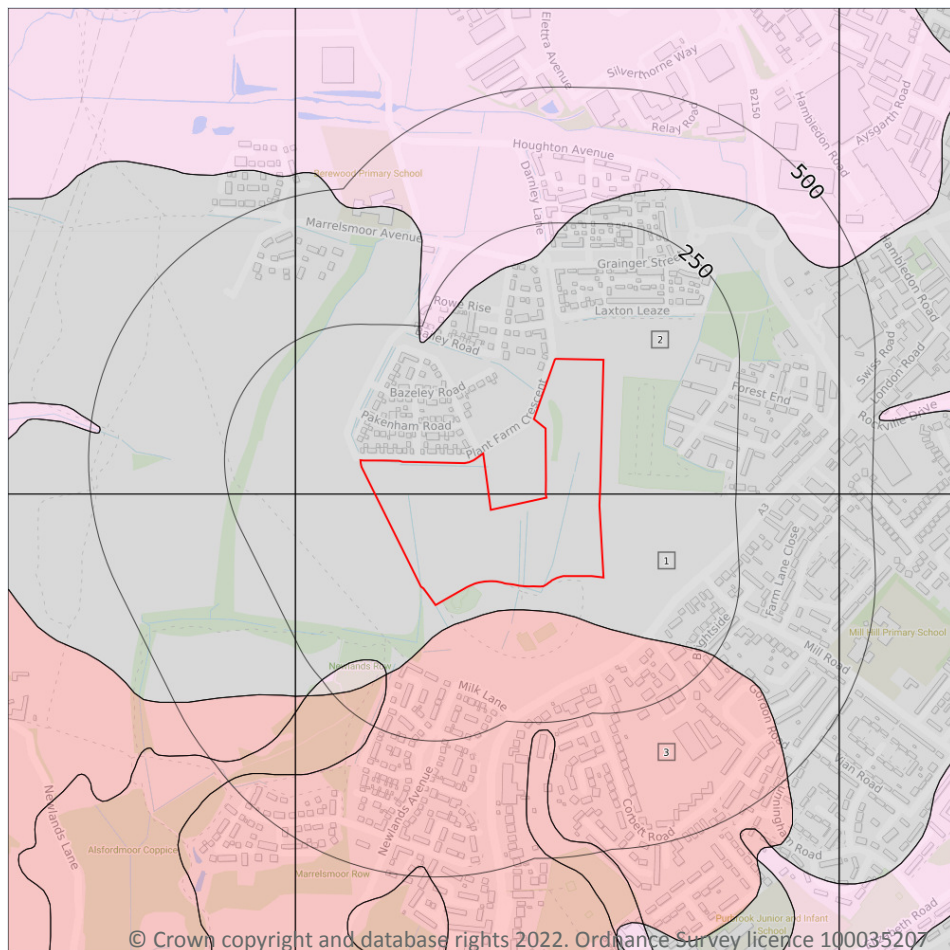
Features are displayed on the Bedrock aquifer map on **page 37**

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	44m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



Groundwater vulnerability



— Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m

3

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

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

Features are displayed on the Groundwater vulnerability map on **page 38**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed
2	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed
3	43m S	Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: High Aquifer type: Secondary Flow mechanism: Mixed

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

Records on site

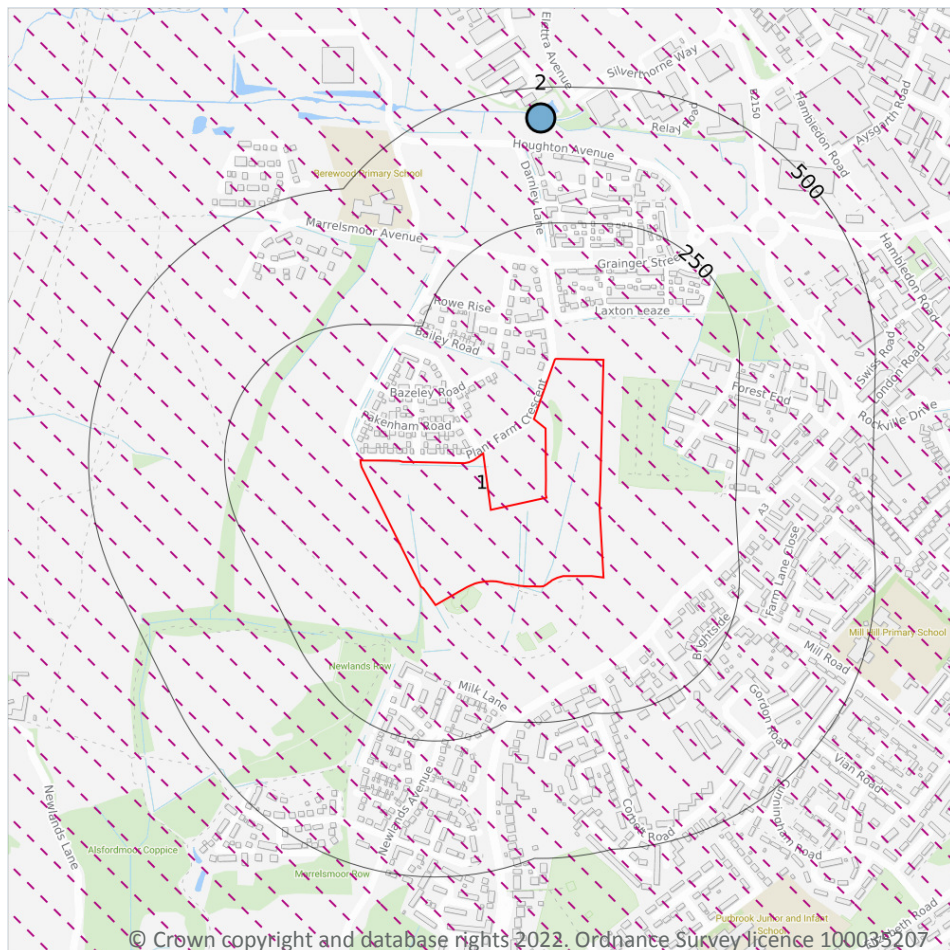
0

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

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



Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- Source Protection Zone 1
Inner catchment
- Source Protection Zone 2
Outer catchment
- Source Protection Zone 3
Total catchment
- Source Protection Zone 4
Zone of Special Interest
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Point features
- 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

0

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.

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



5.7 Surface water abstractions

Records within 2000m

2

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 40**

ID	Location	Details	
2	443m N	Status: Active Licence No: SO/042/0028/014 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: Southern Region Surface Waters Point: RIVER WALLINGTON, WEST OF WATERLOOVILLE Data Type: Point Name: West Waterloooville Developments Limited Easting: 467451 Northing: 109691	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 14/08/2019 Expiry Date: 31/03/2028 Issue No: 1 Version Start Date: 14/08/2019 Version End Date: -
-	1959m NW	Status: Active Licence No: 28/032 Details: Spray Irrigation - Direct Direct Source: Southern Region Surface Waters Point: RIVER WALLINGTON AT FURZELY FARM LAKE, DENMEAD Data Type: Point Name: Sale Easting: 466000 Northing: 110670	Annual Volume (m ³): 3,240 Max Daily Volume (m ³): 36 Original Application No: 169/1102 Original Start Date: 03/10/1991 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2016 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

0

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

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



5.9 Source Protection Zones

Records within 500m

0

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

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m

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.

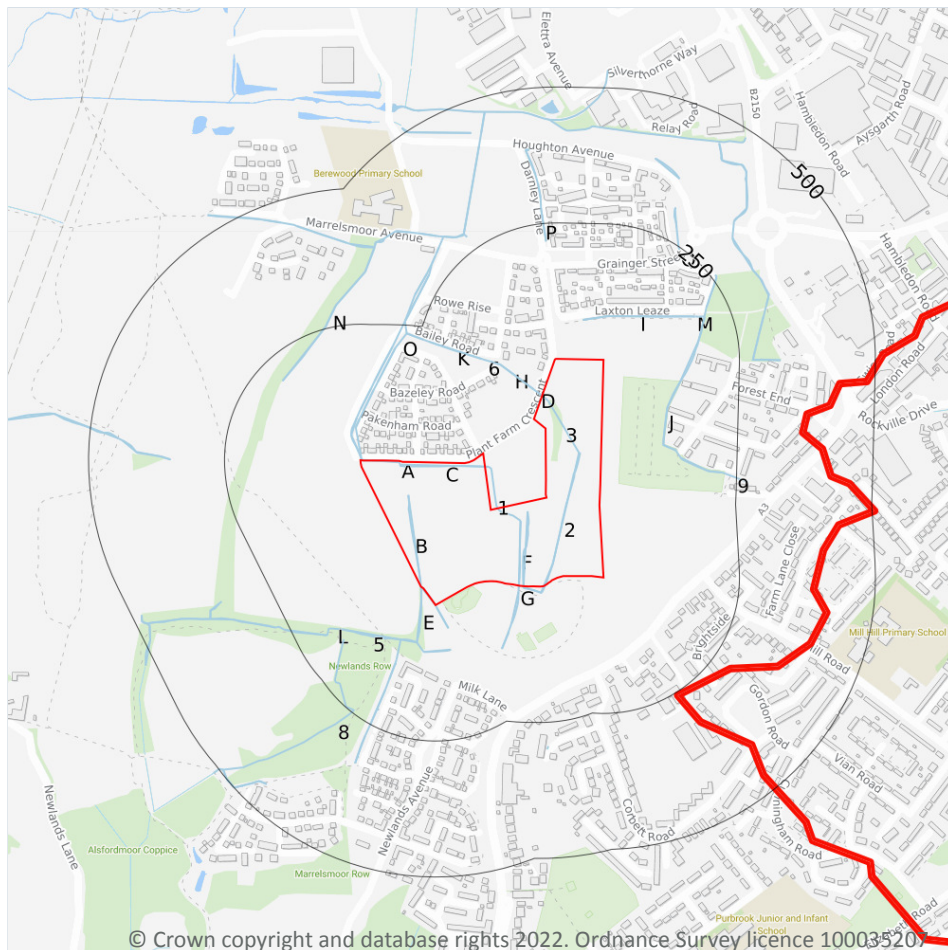
Features are displayed on the Abstractions and Source Protection Zones map on **page 40**

ID	Location	Type	Description
1	On site	1c	Inner catchment within confined aquifer

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



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

69

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 43**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	On site	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
2	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
3	On site	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
A	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
A	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	On site	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
F	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-
A	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	3m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	5m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
G	10m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	11m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	16m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
H	18m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	60m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
G	70m S	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
I	72m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	75m N	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-



ID	Location	Type of water feature	Ground level	Permanence	Name
E	76m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	76m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	78m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	85m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
G	85m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
5	89m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	89m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
A	90m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
A	93m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	110m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
J	113m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	123m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
K	126m 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	129m N	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-
E	130m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	131m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	131m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
A	144m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
A	146m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	160m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
L	164m SW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
8	171m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	180m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
M	185m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
L	185m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
M	187m NE	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
M	192m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
L	194m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
M	202m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
N	204m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
O	207m N	Inland river not influenced by normal tidal action.	Underground	Watercourse may not contain water all year round	-
O	209m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
M	211m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
P	216m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	218m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	219m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
O	221m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
9	224m E	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
O	225m N	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
O	234m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
Q	246m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-
Q	248m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse may not contain water all year round	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

24

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 43**

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 43**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
C	On site	River	Potwell Trib	GB107042016400	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 43**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	882m N	River	Potwell Trib	GB107042016400	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site

0

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.

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

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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

7.2 Historical Flood Events

Records within 250m

0

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

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

7.3 Flood Defences

Records within 250m

0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

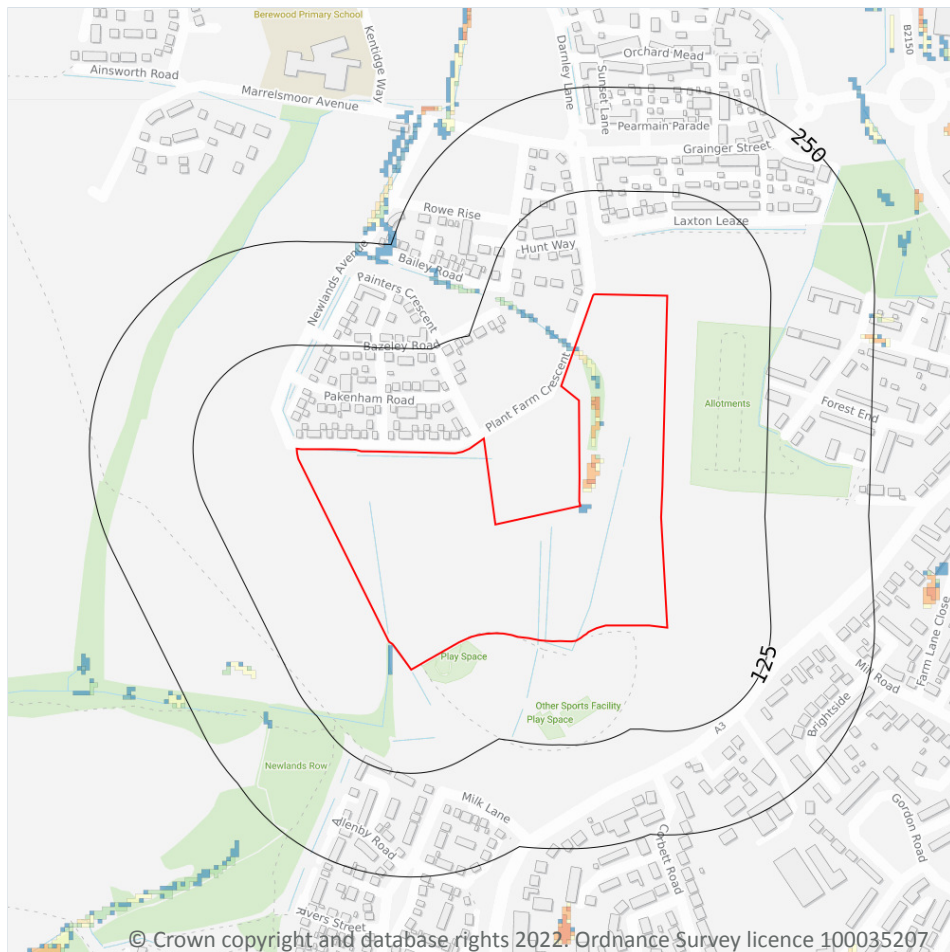
0

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

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



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

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 54**

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.

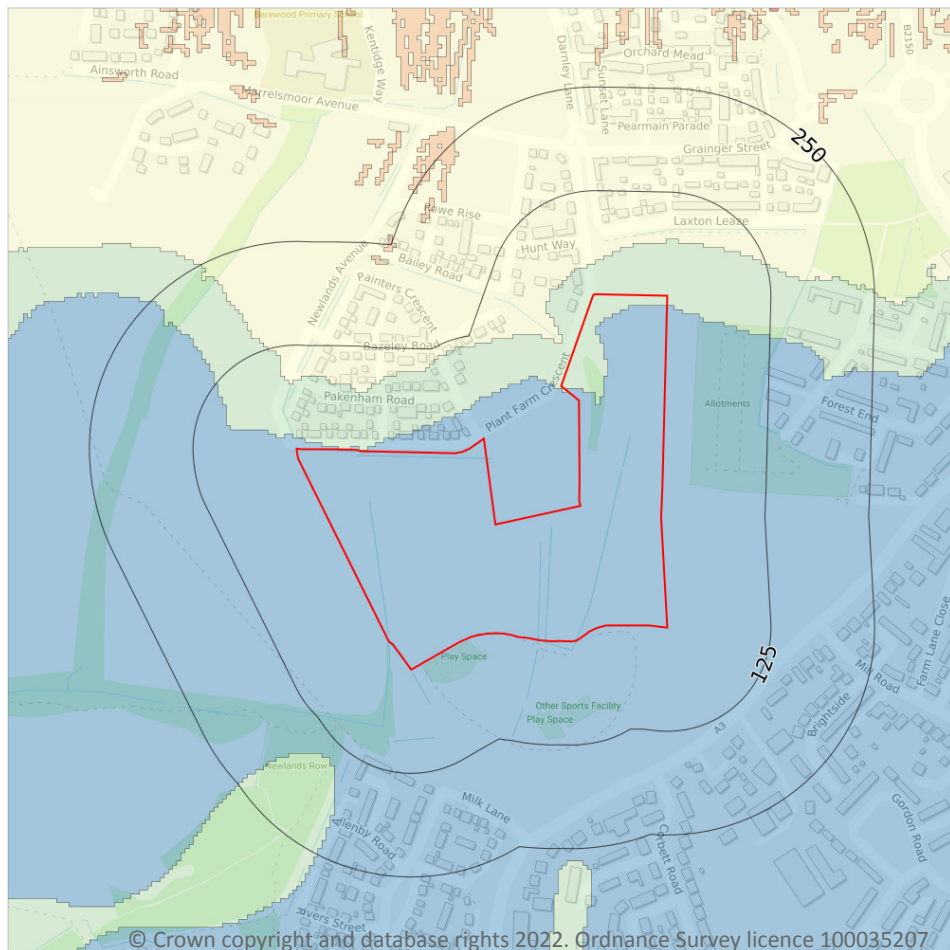
The table below shows the maximum flood depths for a range of return periods for the site.

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 Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

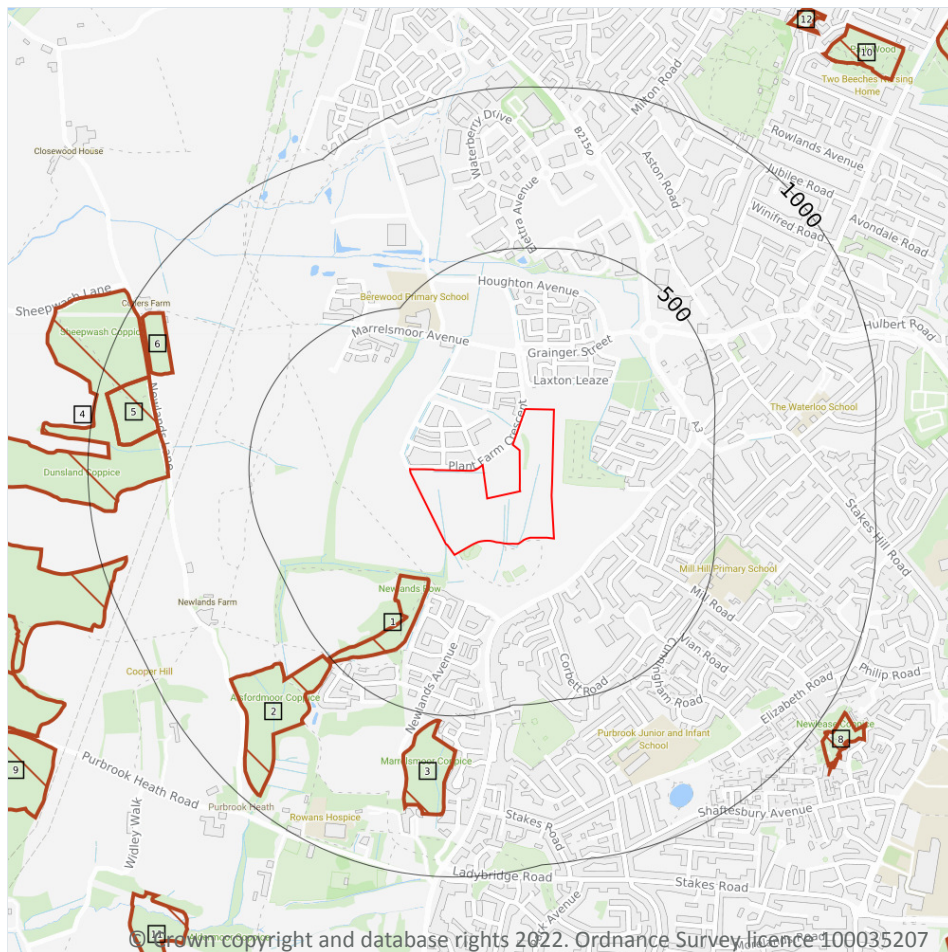
Moderate

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

Features are displayed on the Groundwater flooding map on **page 56**

This data is sourced from Ambient Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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



10.6 Local Nature Reserves (LNR)

Records within 2000m

0

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

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

10.7 Designated Ancient Woodland

Records within 2000m

24

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

Features are displayed on the Environmental designations map on **page 57**

ID	Location	Name	Woodland Type
1	112m SW	Alsfordmoor Coppice	Ancient & Semi-Natural Woodland
2	512m SW	Alsfordmoor Coppice	Ancient & Semi-Natural Woodland
3	517m S	Unknown	Ancient & Semi-Natural Woodland
4	751m W	Sheepwash/tattle/dunsland	Ancient & Semi-Natural Woodland
5	789m W	Sheepwash/tattle/dunsland	Ancient Replanted Woodland
6	795m W	Sheepwash/tattle/dunsland	Ancient Replanted Woodland
7	922m W	Sheepwash/tattle/dunsland	Ancient & Semi-Natural Woodland
8	1035m SE	Unknown	Ancient & Semi-Natural Woodland
9	1370m SW	Sheepwash/tattle/dunsland	Ancient & Semi-Natural Woodland
10	1385m NE	Unknown	Ancient & Semi-Natural Woodland
11	1393m SW	Unknown	Ancient & Semi-Natural Woodland
12	1403m NE	Unknown	Ancient & Semi-Natural Woodland
13	1582m NE	The Queens Inclosure	Ancient Replanted Woodland
-	1588m SW	Sheepwash/tattle/dunsland	Ancient Replanted Woodland
-	1598m W	Sheepwash/tattle/dunsland	Ancient Replanted Woodland
-	1620m SE	Unknown	Ancient & Semi-Natural Woodland



ID	Location	Name	Woodland Type
-	1692m NW	Unknown	Ancient & Semi-Natural Woodland
-	1715m SE	Unknown	Ancient Replanted Woodland
19	1736m SE	Unknown	Ancient & Semi-Natural Woodland
-	1832m SE	Unknown	Ancient Replanted Woodland
-	1924m W	Sheepwash/tattle/dunsland	Ancient Replanted Woodland
-	1930m SE	Unknown	Ancient & Semi-Natural Woodland
-	1979m E	Unknown	Ancient & Semi-Natural Woodland
-	1983m S	Purbrock Park Wood	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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

10.9 Forest Parks

Records within 2000m

0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

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

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



10.11 Green Belt

Records within 2000m

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

2

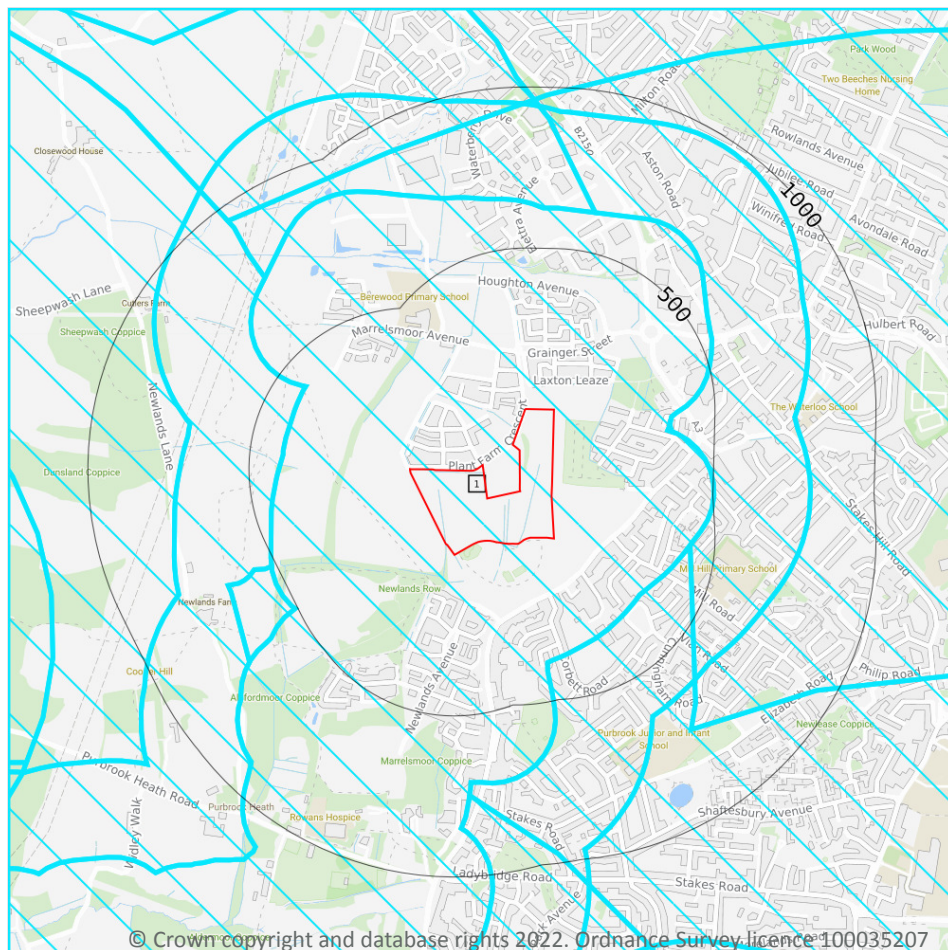
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	Chichester,Langstone and Portsmouth Harbours Eutrophic NVZ (TraC)	Eutrophic Water	2	Existing
1733m NE	Hampshire Chalk	Groundwater	143	Existing

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 63**

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	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

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

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

0

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



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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

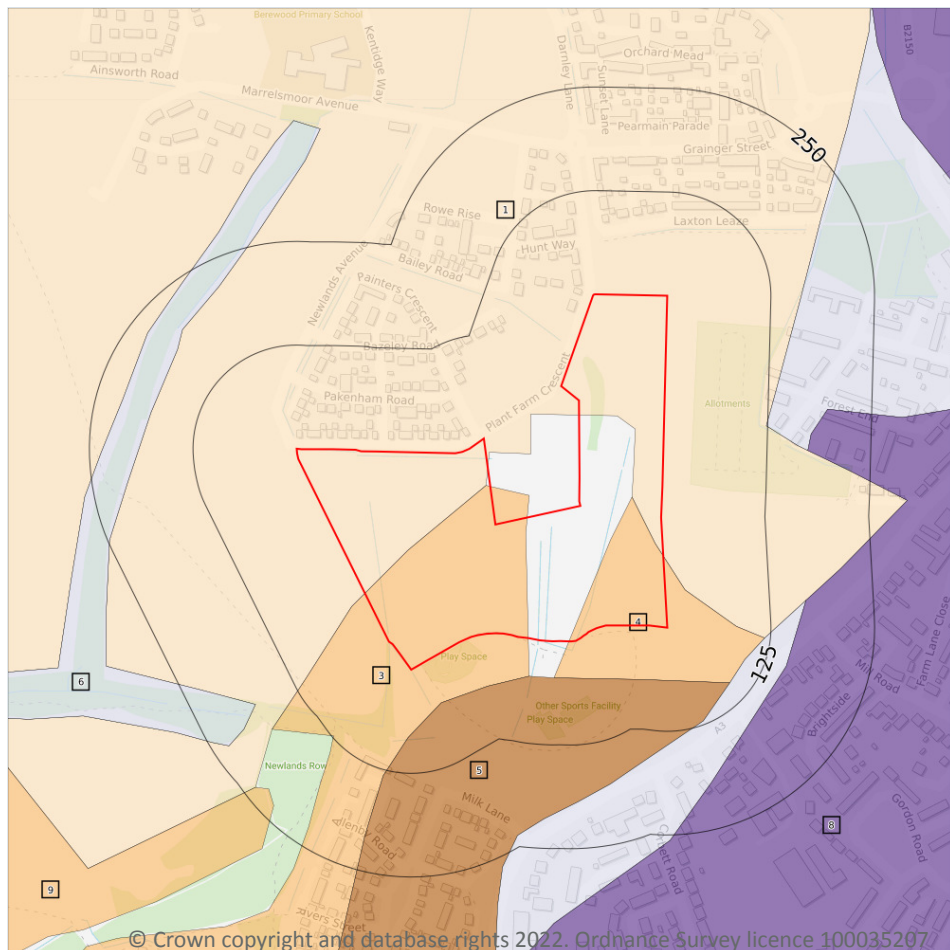
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Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, 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

7

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

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

ID	Location	Classification	Description
1	On site	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

ID	Location	Classification	Description
3	On site	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
4	On site	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
5	44m S	Grade 2	Very good quality agricultural land. Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.
6	99m SE	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.
8	146m SE	Urban	-
9	224m SW	Grade 3a	Good quality agricultural land. Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m

0

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

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



12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

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



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

5

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

Features are displayed on the Habitat designations map on **page 70**

ID	Location	Main Habitat	Other habitats
1	72m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	112m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	163m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	182m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
5	186m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0
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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
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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.

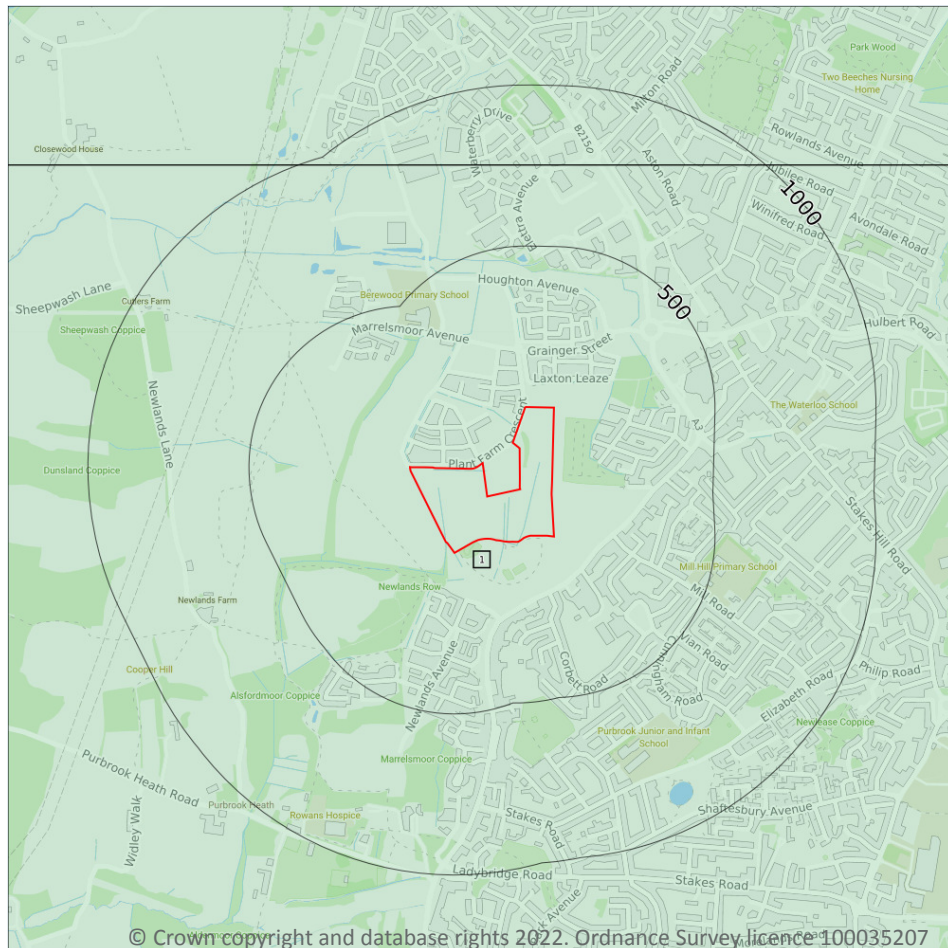
13.4 Limestone Pavement Orders

Records within 250m	0
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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 72**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SU60NE

This data is sourced from the British Geological Survey.



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

14.2 Artificial and made ground (10k)

Records within 500m

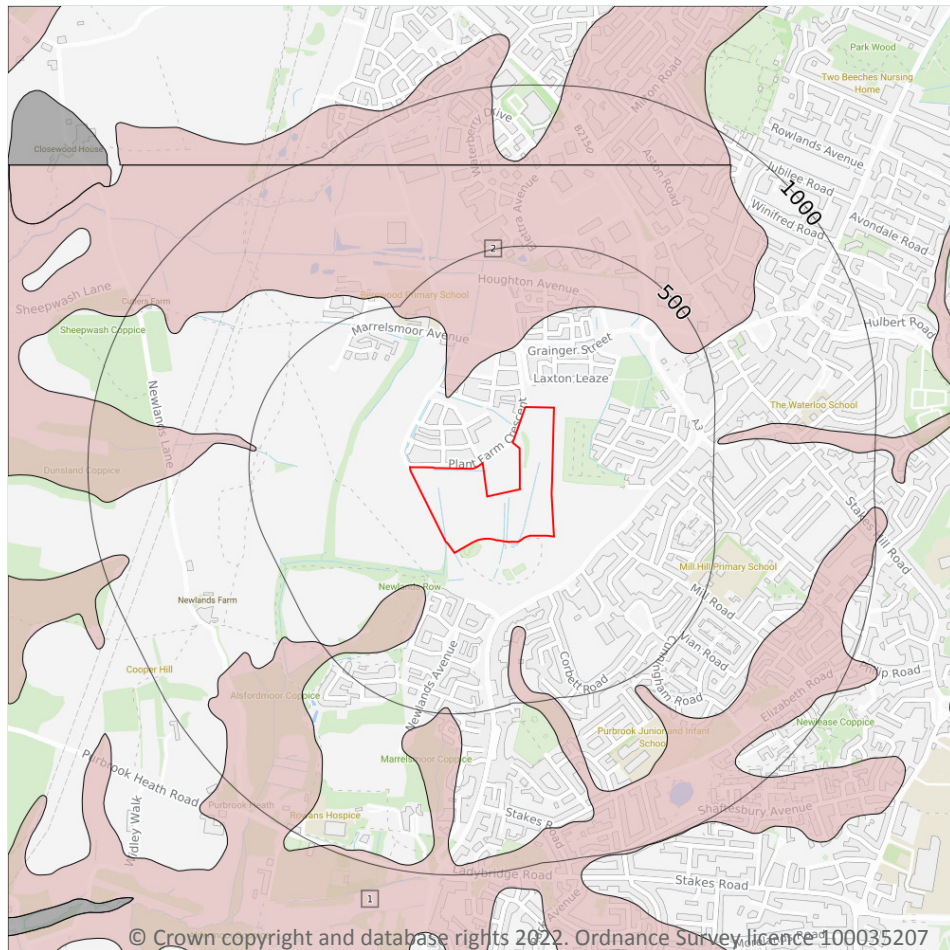
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



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

2

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 74**

ID	Location	LEX Code	Description	Rock description
1	146m SW	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
2	186m N	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

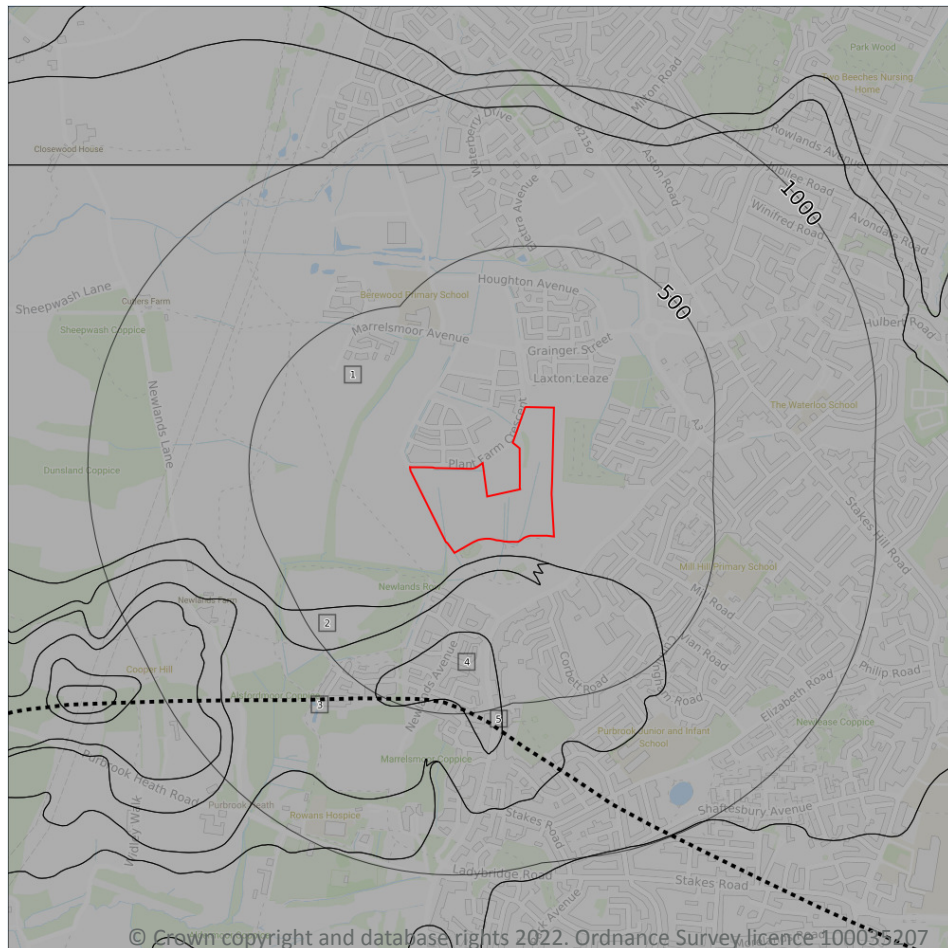
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Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



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 76**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
2	43m S	WTT-SANDU	Wittering Formation - Sand	Lutetian Age - Ypresian Age
3	86m S	WTT-SSCL	Wittering Formation - Sand, Silt And Clay	Lutetian Age - Ypresian Age
4	246m S	WTT-SANDU	Wittering Formation - Sand	Lutetian Age - Ypresian Age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

1

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.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 76**

ID	Location	Category	Description
5	464m S	FOLD_AXIS	Axial plane trace of major syncline

This data is sourced from the British Geological Survey.

