

Phase 1 Desk Study and
Preliminary Geoenvironmental Assessment

For a site at

Rose Kiln Hybrid Development, Reading

Undertaken for

Stenprop Industrial 6 Limited

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1.0 INTRODUCTION

Appointment

- 1.1 WML Consulting has been commissioned by Stenprop Industrial 6 Limited to undertake a Phase 1 Desk Study and Preliminary Geoenvironmental Assessment of a site located off Rose Kiln Lane, Reading.

Proposed Development

- 1.2 The preliminary proposals comprise redevelopment of the site to include 11no low rise industrial / commercial units.
- 1.3 The external areas are to be surfaced with hardstanding for access, car parking and service yards. More localised soft landscaping is to be retained or modified along the eastern and western site boundaries.
- 1.4 The currently proposed development option drawing by Pozzoni, is presented in Appendix 01.

Objective

- 1.5 The purpose of the desk study is to collate available geological and environmental data for the site and its environs in order to undertake a preliminary geotechnical and geoenvironmental appraisal and thus inform a site-specific conceptual model.
- 1.6 This enables a preliminary assessment of geo-environmental risks to be undertaken and provides information for the design of a geotechnical and geo-environmental ground investigation.
- 1.7 This follows current recommendations set out in the Environment Agency (EA) Model Procedures for Land Contamination Risk Management, April 2021.

Scope

- 1.8 The desk study has comprised a review of the following information sources:
- British Geological Survey (BGS) 1:50,000 scale, Sheet 268 'Reading' (Solid & Drift editions).
 - BGS Digital Geological Map of Great Britain (DiGMapGB-50; available as a web map service).
 - Coal Authority interactive map viewer (available as a Web Map Service).
 - The site and surrounding area's geological and environmental setting from data presented in the site specific GroundSure Environmental Insight Report (Appendix 03).
 - Historical Ordnance Survey maps as provided by GroundSure (Appendix 03).
 - Review of free public sector information through QGIS viewer licensed under the Open Government Licence v3.0.
 - UKradon Indicative Atlas of radon in England and Wales as provided by UK Health Security Agency.
 - BRE Publication 211 (2015) "Radon: Guidance on Protective Measures for New Buildings".

2.0 SITE SETTING

Description	Comments
Site Address	Rose Kiln Court Rose Kiln Lane Reading RG2 0BY
National Grid Reference	471309E , 172336N
Site Area	0.64 hectares
Site Location	The site is bounded by:- North – Holy Brook with residential houses beyond. East – A33 beyond which generally comprises mixed retail/ commercial units. South – Commercial units. West – Rose Kiln Lane and Holy Brook with mixed residential and retail units beyond.
Site Description	The site comprises a disused two storey office structure located in the northern section was historically used as an office by Thames Water. Three smaller structures located immediately south-west of this, house a generator, electricity sub-station and a gas governor. A second generator was noted in the north-eastern corner of the site. The structures are surrounded by hardstanding comprising a mix of block paving and asphalt formerly used as access and parking. The northern and western section of the site comprise linear landscaping including mature trees and shrubs along the line of Holy Brook, which forms the site boundary, extending roughly from north-east to south-west. More localised soft landscaping, including low lying vegetation and mature trees form the eastern boundary with the A33. A low hedge also demarcates the southern boundary with the adjacent The site is secure with a mix of wooden and metal fencing and accessed from Rose Kiln Lane to the south-west.
Topography	The site reduces slightly in elevation from around 40.25m Above Ordnance Datum (AOD) in the west to 38.77m AOD in the north-east. This is generally commensurate with the surrounding ground conditions. A topographic survey by Greenhatch Group, referenced GH10558, is presented in Appendix 01.

3.0 ENVIRONMENTAL SETTING

3.1 The following sections on the environmental setting of the site are summarised from the GroundSure Enviro Insight Report and a review of the information sources outlined within Section 1.7.

Description	Comments	
Geology (1:10, 000, 1:50,000 scale Map Sheets and digital mapping)	Artificial Deposits	Made ground is noted beneath the site to unknown depths and of unknown provenance.
	Superficial Deposits	Alluvium comprising mainly clay, silt, sand and gravel.
	Solid Strata	Cretaceous Lewes Nodular Chalk Formation, comprising chalks of the Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated).
	Geological Faults	None within 500m.
	BGS Records	3no BGS boreholes within the subject site (SU77SW776, 77 & 80) recorded made ground to depths of between 0.15m and 2.40m below ground level, but based on levels prior to the current development platform. These were locally underlain by clays and peaty clay to depths of between 3.10m and 3.50mbgl. Where present the clay was underlain by loose and medium dense gravel locally with sand bands to between 12.60m and 13.50mbgl. below these depths Grade V chalk extended to around 16.00mbgl before grading into a less weathered Grade III chalk described as medium hard becoming hard, to depths in excess of 20.00mbgl.
Mining and Subsidence	In consideration of the underlying geology, the risk from shallow coal mining activity at the site can be discounted. The Groundsure report noted several dissolution pipes in the underlying chalk, These are formed through the dissolution of soluble rocks such as the chalk. Ground instability can then result from movement of loose material contained within these cavities, often triggered by water. However, the closest are indicated to be located 398m north-west of the site and the risks from dissolution are considered to be low. Localised small scale underground mining is also indicated to have occurred within the surrounding areas, the closest being 30m north-west of the site. However, report noted that the potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered. Therefore, the site is indicated to be risk from non-coal mining activity at the site is also considered very low. The Groundsure report also notes that the site is within an area classified as being at medium risk from compressibility and uneven settlement hazards associated with the Alluvial strata.	
Radon	The site is not in Radon Affected Area as defined by the Health Protection Agency were less than 1% of properties are above the Action Level of exposure.	

Description	Comments	
	Therefore, no radon protection measures are necessary for new structures as described in publication BR211 by the Building Research Establishment.	
Hydrogeology	Superficial Aquifer	Secondary A These comprise permeable soil 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.
	Bedrock Aquifer	Principal Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale.
	Source Protection Zone (SPZ) within 500m	None.
	Groundwater Abstractions within 1km	None.
Hydrology	Surface Water Features within 250m	Holy Brook forming the northern and north-western site boundary with the River Kennet some 90m east.
	Surface Water Abstractions within 750m	None.
Landfill and Waste Management Activity	Active Landfills within 500m	None.
	Historical (Environment Agency (EA)/Local Authority) Landfill within 250m	1no 188m south-east at Waterloo Meadows, accepted inert industrial waste, the dates for filling are not indicated.
	Other Waste Sites within 250m	None.
Industrial Land Use Information	There are 24no potentially contaminative industrial sites recorded within 250m. The nearest and most relevant of these relate to:-	
	Distance (m)	Direction
	0	-
	39	East
	73	South-east
	91 - 116	All directions

Description	Comments		
	125	south	Tank (generic)
	Underground High Pressure Pipelines within 500m		None.
	Petrol Filling Stations within 250m		3no of which the closest 2no are 110m south-west and 162m north-west are obsolete. The closest active PFS is 177m south-west.
Active Environmental Permits, Incidents and Registers	Permits Incidents/Registers		Distance (m)
	IPC Authorisations, Part A(1),		250
	Part A(2) Authorised Activities		250
	Part B IPPC Authorised Activities		250
	List 1 or List 2 Dangerous Substances Inventory Sites		250
	Radioactive Substance Authorisations		250
	Recorded Pollution Incidents		250
	Contaminated Land - Section 78R of the Environmental Protection Act 1990		250
Potential Flood Risk	Detailed assessment of flood risk is outside the scope of this report. However, reference to the EA website and the Groundsure report indicates that the risk of flooding from rivers and the sea (RoFRaS) is currently designated as 'medium' along the northern and north-western site boundaries within the area designated as an Environment Agency Flood Zone 2. The site is indicated on BGS records to be within an area which is considered to have a medium and locally high risk associated with groundwater flooding.		
Environmentally Sensitive Sites	There are no designated environmentally sensitive sites within 250m of the subject site. The site is located within an SSSI impact risk zone where certain proposed developments require further assessment. However, the proposed development does not fall within any of the stated categories.		

Description	Comments
	However, an ecological assessment of the site falls outside of the brief of this report and it is recommended that an ecological specialist be consulted where considered necessary.
Archaeological Information	No archaeological information has been obtained for the purpose of this report. Where considered appropriate, reference should be made to an archaeological consultant in this respect.

4.0 HISTORICAL SETTING

- 4.1 The historical development of the site has been determined by reference to archive Ordnance Survey (OS) map extracts obtained from the GroundSure EnviroInsight Report in Appendix 03.
- 4.2 The earliest map dated 1879 indicates the site to comprise undeveloped land with a northerly flowing surface water feature extending north to south through the extreme eastern section of the site. The drain flowed into the northerly flowing Holy Brook, which also formed the northern and north-western boundary of the site. The River Kennet was also located 90m east of the site at its closest point with rifle range cottages 25m north-west.
- 4.3 The area surrounding the site has historically comprised undeveloped land in rural / agricultural use with localised clay pits and kilns, the closest being 110m north-east and 100m west. By the early 1900's the clay pits and kilns were no longer evident with the area to the north-east developed with residential housing.
- 4.4 By 1912, a railway had been constructed along the eastern site boundary and the drain in the eastern section of the site was no longer evident.
- 4.5 By 1932 the land immediately north of Holy Brook had been developed as the Coley Bathing Place, an open air lido. A preserve works was located 50m south-east with a series of generic tanks were also located to the east of the railway later associated with a depot.
- 4.6 By 1957 the central section of the site had been developed as a works. A drain had also been constructed which extended generally from north-east to south-west across the north-western section of the site. The areas to the north of Holy Brook and north-east of the railway had been developed as unspecified works and depots.
- 4.7 The 1963 plans indicate that a section of the drain had been culverted beneath the north-western corner of the site and the works appeared to have been modified. By this time an additional generic works had been constructed immediately south-west of the site which later included an electricity substation 10m and generic tank 25m and 90m south-west.
- 4.8 Sometime between 1981 and 1986 the railway along the eastern section of the site had been dismantled and Rose Kiln Lane had been constructed to the east after the partial demolition of the adjacent works to the south-west. By this time the lido immediately north was no longer evident and possibly infilled.
- 4.9 The former works appeared to have been cleared and the site redeveloped into its current configuration which includes the generator and electricity sub-station around 1994. During this time the A33 was constructed along the line of the former railway which extends roughly north to south and follows the eastern site boundary.
- 4.10 On the basis of the previous site use, no significant widespread sources of ground contamination are envisaged. However, the potential for more localised contamination associated with historic uses cannot be discounted.
- 4.11 This could include Asbestos Containing Materials (ACM) within existing structures and near surface soils as a result of previous demolition activity.
- 4.12 The in-filling of historic drains with materials of unknown provenance could also provide a source of ground contamination and the potential, albeit low, for the production of landfill gas, if where significant thicknesses of organic soils are encountered.
- 4.13 In addition, due to its age, the soils beneath the electricity sub-station compound in the western section of the site may also contain localised sources of polychlorinated biphenyls (PCBs) historically used in power generation and transmission equipment.

5.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

Introduction

- 5.1 The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site as defined by DEFRA and the EA Model Procedures for Land Contamination Risk Management, April 2021.
- 5.2 The table in Paragraph 5.4 provides a Preliminary Conceptual Model (PCM) which defines the site in terms of a potential contamination linkage, that is, whether a pathway exists between a contamination source and a sensitive environmental receptor (Source-Pathway-Receptor relationship).
- 5.3 The table considers whether a contamination linkage is potentially present or not and provides a preliminary qualitative assessment of risk, based on the information currently available and in accordance with guidance provided in the CIRIA document C552 (2001) Contaminated Land Risk Assessment – A Guide to Good Practice. The risk evaluation process is described further in Appendix 04.
- 5.4 Where a possible linkage is identified, it does not necessarily mean that a significant risk exists, but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

Source	Pathway	Receptor	Probability of Linkage	Comment
The likelihood of widespread and significant ground contamination sources being present at the site due to its past use is considered low although the presence of made ground of unknown provenance and localised sources, including potential hydrocarbons associated with the generators and PCB's within the sub-station cannot be wholly discounted at this stage. The presence of Asbestos Containing Materials (ACM) within made ground cannot be	Direct contact, ingestion of soil, dermal contact, dust exposure pathways.	Current Site Users	Unlikely	The site currently comprises predominately buildings and hard cover with localised areas of soft landscaping. Due to the transient nature of site use, no significant long-term direct exposure scenario is considered likely. Therefore, the risk to current site users is considered LOW .
		Site End Users	Unlikely	The provision of new buildings and hard cover would maintain a break in the direct pollution linkage to a large degree, although an exposure route may remain within any proposed landscaped areas. However, the overall preliminary risk to site end users from direct contact with contaminated ground is considered LOW .
		Construction Workers	Low	Construction workers are unlikely to be exposed to significantly contaminated soils during earthworks and foundation construction. Also, the exposure time will be relatively short with any contamination risks being mitigated by adopting good site working practices including appropriate health and safety measures during the works, thus providing a LOW preliminary risk.

Source	Pathway	Receptor	Probability of Linkage	Comment
wholly discounted at this stage.		Adjacent land users	Low	Contact via wind-blown dust/debris, particularly during the development phase, is possible although the exposure time would be relatively short. The current risk is considered LOW , although this could increase during construction works. Appropriate health and safety measures, including dust suppression, adopted during site construction, will ensure that the risk to adjacent site users remains low.
The presence of widespread and significant soluble and/or liquid and therefore mobile contaminants occurring at the site due to its past use is considered unlikely. However, localised sources cannot be wholly discounted, particularly around the existing sub-station from possible unrecorded leakages/spillages.	Direct downward migration through leaching and/or mobile liquids.	Groundwater	Low	The bedrock underlying the site is classified as a Principal Aquifer. However, in view of the presence of significant mobile contaminants being unlikely across the majority of the site and the lower sensitivity of the intervening Alluvial Deposits, the preliminary risk to groundwater is considered LOW .
	Off-site migration in groundwater or surface water flow.	Surface water	Low	There are 2no surface water features within influencing distance of the site. However, in view of the presence of significant mobile contaminants being unlikely, the preliminary risk to surface water is considered LOW subject to confirmation.
		Groundwater and surface water abstractions	No linkage envisaged	The site is not within an EA Source Protection Zone with no water abstractions within 500m. The risk to groundwater/surface water abstractions is therefore considered VERY LOW .
		Adjacent Properties	Unlikely	No significant sources of mobile contaminants are anticipated beneath the site with little mechanism for significant lateral movement of contaminants to nearby receptors due to the relatively impermeable glacial till. Therefore, the preliminary risk to adjacent properties is considered LOW .
		Ecology	No linkage envisaged	There are no designated ecologically sensitive sites within influencing distance of the subject site. The risk to any recorded sensitive ecology from the site is therefore considered VERY LOW .
The likelihood of volatile contaminants occurring at the site due to its past use is considered low.	Inhalation of harmful vapours (indoor and outdoor airspaces)	Current Site Users	Low	Significant sources of volatile contaminants at the site are not anticipated. In addition, the transient use of the site will minimise the exposure time to any volatile contamination. Therefore the preliminary risk to current site users is assessed as LOW .

Source	Pathway	Receptor	Probability of Linkage	Comment
Although this cannot be fully discounted beneath the generators.		Site End Users	Unlikely	Significant sources of volatile contaminants at the site are not anticipated with future anticipated site occupation being transient in nature. Furthermore, any perceived risk would be mitigated by incorporation of protection measures into any proposed buildings. The preliminary risk from inhalation of indoor/outdoor air is therefore considered LOW .
		Construction Workers	Low	In the unlikely event of construction workers coming into contact with possible volatile compounds, the exposure time will be relatively short. The chronic exposure risk to construction workers, assuming that appropriate health and safety measures will be adopted, is therefore considered LOW .
		Adjacent Properties	Unlikely	Significant sources of volatile contaminants arising from the site's past use are not anticipated. Therefore the preliminary risk to adjacent properties from volatile contaminants at the site is assessed as LOW .
There are no current or closed landfills within influencing distance of the site. Although an infilled Lido is located immediately north of Holy Brook. The presence of ground gas resulting from shallow unrecorded mine workings can be discounted. Infilled drains are recorded within the northern part of the site which could be considered a source of ground gas, although continued gas generation is unlikely.	Emissions from the ground beneath the site collecting in confined spaces and excavations	Construction/ services maintenance workers	Low	The potential for significant volumes of ground gas to migrate from the infilled drains, whilst considered unlikely, cannot be wholly discounted. However, assuming that appropriate health and safety measures will be adopted during construction, the preliminary risk is considered LOW .
	Migration of gases on/off site and collecting in confined spaces on/off site.	Adjoining site users	Unlikely	The potential to generate significant volumes of ground gas beneath the site is considered low. Therefore, the preliminary risk to adjacent properties from the site is considered LOW .
		Current/future site users	Low	The potential for significant volumes of ground gas to migrate from the infilled drains, whilst considered unlikely, cannot be wholly discounted. The preliminary risk is therefore considered LOW although this will need to be confirmed by further, development specific investigations and monitoring.

Source	Pathway	Receptor	Probability of Linkage	Comment
The site is within an area where less than 1% of properties are affected by naturally occurring radon gas.	Natural emissions from the ground collecting in confined spaces within buildings	Site end users	No linkage envisaged	The site is not located in an area where radon protection measures are required. Therefore, the potential risk to site end users is considered VERY LOW .
Chemicals which could prove aggressive to construction materials may be present beneath the site.	Direct contact	Construction concrete, plastic water pipes.	Low	Any risks to construction materials identified after site investigation and assessment will be mitigated as part of the structural design. The perceived risk is therefore considered LOW .

Preliminary Risk Assessment

- 5.5 Under the proposed development scenario, potential pollution linkages are considered unlikely or low with associated preliminary risks being assessed as very low to low.
- 5.6 The approach at the Phase 1 Desk Study stage is, however, precautionary until such time as uncertainties in the conceptual model can be verified by appropriate site investigation.
- 5.7 Such uncertainties relate, in the main, to contamination associated with historical site use, the potential for hydrocarbons associated with the generators and PCB's within the sub-station. The presence of ACM and asbestos fibres within existing structures and shallow soils resulting from historical demolition also cannot be discounted at this stage.
- 5.8 To a lesser degree, risks of ground gas from underlying organic soils and infilled drains also cannot be discounted at this stage.

6.0 PRELIMINARY DEVELOPMENT CONSIDERATIONS

Geotechnical Considerations

Development Consideration	Summary
Ground Obstructions	Existing and historical foundations, ground floor slabs and other buried concrete obstructions associated with current structures should be anticipated and will need to be removed to facilitate proposed foundation construction. Excavation of ground obstructions should be undertaken with due regard to the integrity of adjacent existing structures, roads and services infrastructure.
Earthworks	Unlikely to be significant.
Foundations and Floor Slabs	The presence of relatively deep made ground associated with historic infilled drains and incompetent Alluvial Deposits cannot be discounted with foundations possibly requiring to be locally piled as a result. The choice of foundation options will therefore be subject to detailed ground investigation and assessment.
Soakaways	Due to the anticipated relatively impermeable nature of the underlying natural soils, the use of soakaway drainage may not be feasible. This will need to be confirmed by ground investigation and possible large-scale infiltration testing at detailed drainage design stage.
Potential Culverts	At this stage it is assumed that the former drains / surface watercourses within the site have been infilled. However, this would need to be confirmed as it is possible that such may have been culverted beneath the north-eastern and north-western sections of the site.

Other Considerations

Development Consideration	Summary
Asbestos Survey	It is assumed that no demolition will proceed until an appropriate asbestos survey of the existing buildings has been undertaken and any ACM removed by an appropriately licensed contractor.
Existing Services	The locations of all existing services will need to be accurately determine across the full footprint of the development area. It cannot be ruled out that services may need to be diverted to accommodate the proposed new structure.

Development Consideration	Summary
Electricity Sub-Station and Generators	The proposed development indicates the removal of the existing electricity sub-station and generators, the oldest of which dates back to sometime prior to 1982. It is advised that discussions should be held with the statutory service provider regarding the status of the facilities and particularly whether any equipment potentially containing PCB's could be present and if so if it has been appropriately de-commissioned. Therefore, it cannot be discounted that a degree of ground remediation may be required local to the facilities.

7.0 SUMMARY AND RECOMMENDATIONS

Development Considerations	Comments
Shallow Mining	Very low risk
Natural Dissolution	Low risk
Flood Risk	Locally moderate risk to the north/north-west.
Ground Obstructions	Will be encountered and need to be removed.
Earthworks	No significant level changes anticipated.
Foundations	The requirement locally for piled foundations should not be discounted at this stage. This needs to be confirmed by appropriate ground investigations.
Ground Contamination	Low preliminary risk to be confirmed by ground investigation and chemical analysis.
Hazardous Ground Gas	Low preliminary risk to be confirmed by ground investigation and ground gas monitoring.
Radon	No radon protection measures required.
Soakaway Drainage	Unlikely to be suitable, subject to ground investigation.
Asbestos	No demolition to take place without an asbestos survey and subsequent removal.
Underground Services	A scan survey of underground private and statutory services may be required with any culverts identified and accurate located.
Sub-station / Generators	The proposed development indicates the removal of the existing electricity sub-station and generators. Discussions should be held with the statutory service provider regarding the status and de-commissioning of these facilities. Therefore, it cannot be discounted that a degree of ground remediation may be required local to the facilities.

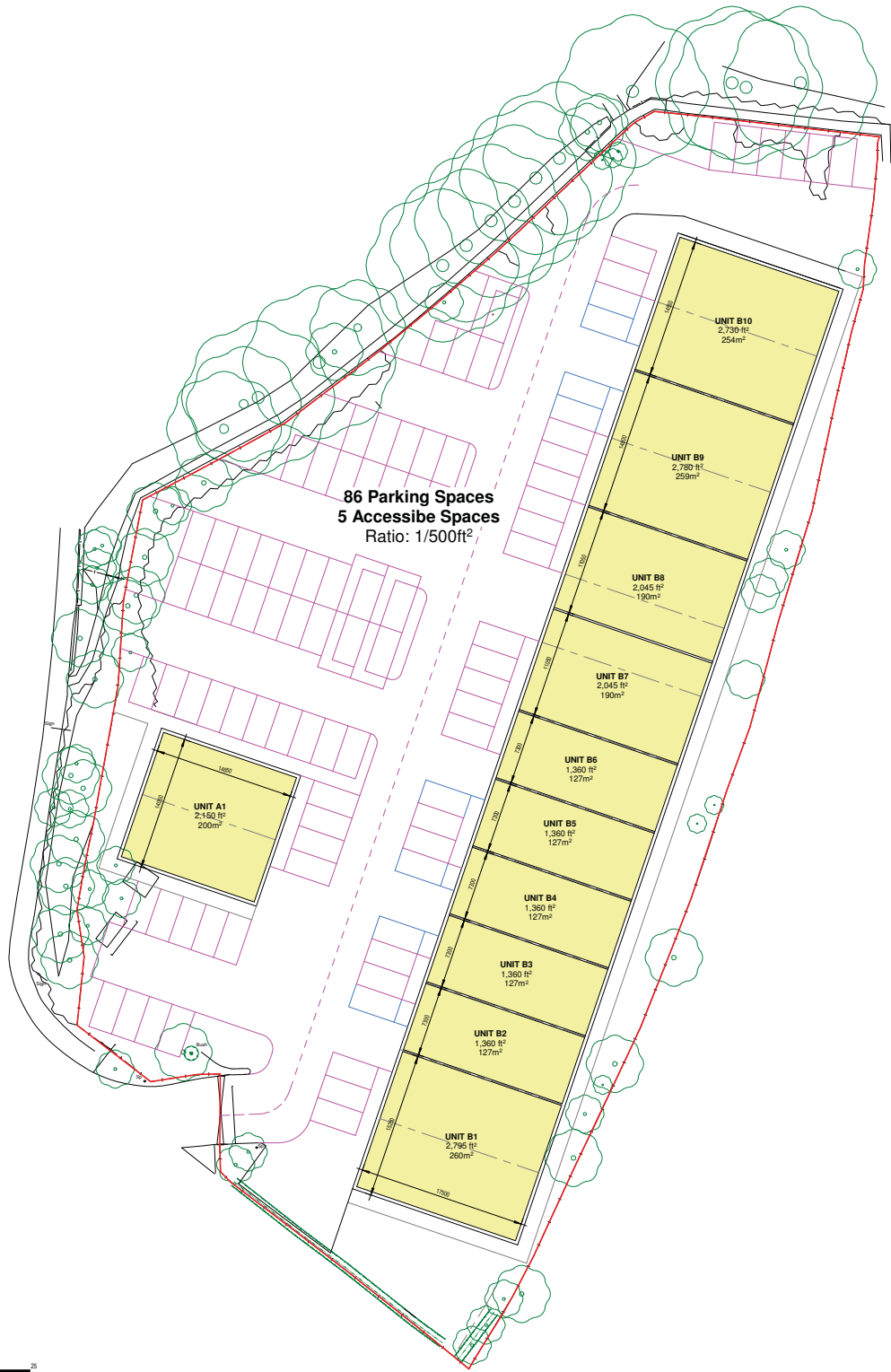
Site Investigation

- 7.1 Site investigations will be necessary to provide information on the physical and chemical ground conditions. This will enable assumptions made in the preliminary site conceptual model to be confirmed or modified so as to assess the actual environmental risks posed by the site.
- 7.2 The investigation will comprise sampling and chemical analysis of the near surface soil and will include analysis for the identification of ACM and asbestos fibres.
- 7.3 Ground investigations will also need to include for the monitoring of ground gas.
- 7.4 Ground investigations will also provide parameters for the design of foundations, floor slabs and external pavements.

- 7.5 Site investigations will be undertaken in accordance with British Standard Institution (BSI), Code of Practice for Ground Investigations – BS5930:2015 and Investigation of Potentially Contaminated Sites – Code of Practice. BS 10175:2011 + A2:2017.

APPENDIX 01

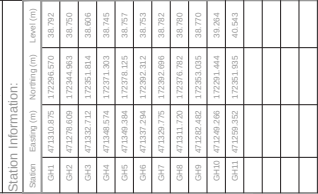
Drawings



86 Parking Spaces
5 Accessible Spaces
Ratio: 1/500ft²



SCHEDULE OF AREAS				GIA
UNIT A1	2,150 ft ²			200 m ²
	Muzz @ 100%			200 m ²
	Total	4,300 ft ²		400 m ²
UNIT B1	2,795 ft ²			260 m ²
	Muzz @ 100%			260 m ²
	Total	5,590 ft ²		520 m ²
UNIT B2	1,360 ft ²			127 m ²
	Muzz @ 100%			127 m ²
	Total	2,720 ft ²		254 m ²
UNIT B3	1,360 ft ²			127 m ²
	Muzz @ 100%			127 m ²
	Total	2,720 ft ²		254 m ²
UNIT B4	1,360 ft ²			127 m ²
	Muzz @ 100%			127 m ²
	Total	2,720 ft ²		254 m ²
UNIT B5	1,360 ft ²			127 m ²
	Muzz @ 100%			127 m ²
	Total	2,720 ft ²		254 m ²
UNIT B6	1,360 ft ²			127 m ²
	Muzz @ 100%			127 m ²
	Total	2,720 ft ²		254 m ²
UNIT B7	2,045 ft ²			190 m ²
	Muzz @ 100%			190 m ²
	Total	4,090 ft ²		380 m ²
UNIT B8	2,045 ft ²			190 m ²
	Muzz @ 100%			190 m ²
	Total	4,090 ft ²		380 m ²
UNIT B9	2,780 ft ²			259 m ²
	Muzz @ 100%			259 m ²
	Total	5,560 ft ²		518 m ²
UNIT B10	2,730 ft ²			254 m ²
	Muzz @ 100%			254 m ²
	Total	5,460 ft ²		508 m ²
TOTAL	42,690 ft ²			3,976 m ²
SITE AREA	1.58 ac			0.64 ha



OS Note: The survey has been submitted to the Distance Survey (OS) National Grid (OSNGR019) via OSMap (SurveyMap) Systems (OSMS) and the OS Active Network (OS AN).

A free OS256 coordinate has been established near to the site centre via a transformation using the OSTN150 B & OS256 SGB Trans-formation models.

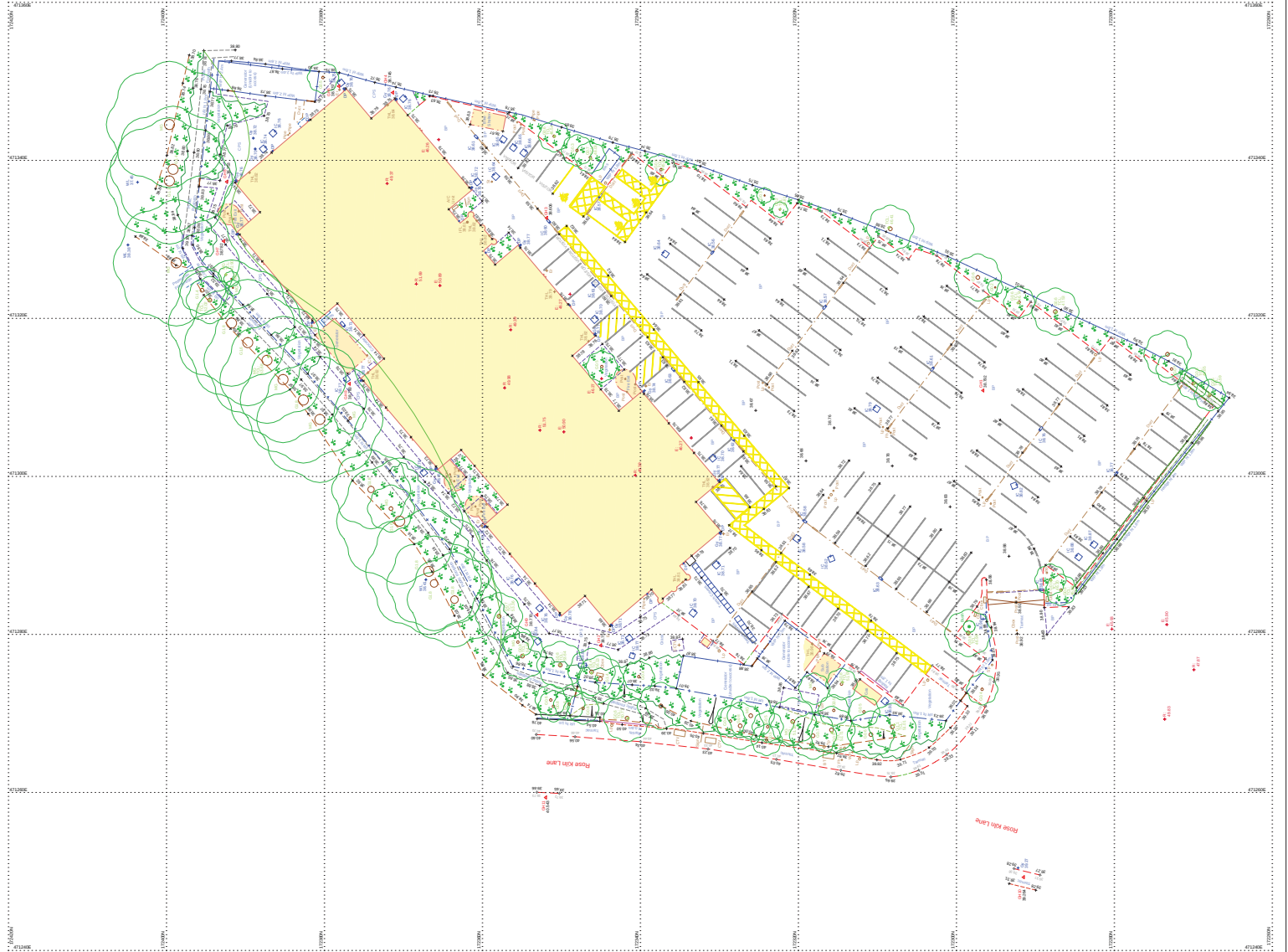
The survey has been correlated to this point and a further one or more OS256 (1:25,000) points established to create a bearing for angle orientation.

Please refer to Survey Station Table to enable stable/precise

Go to www.oup.com and search.

[illegible][illegible]

UNIVERSITY	INDUSTRIALS
PROJECT	Rease Kiln Count Rease Kiln Reading, RG2 0BY
FILE	Topographical Survey
DATE	17/08/21
APP 1/250	OSM 1/250
MR	OSM 1/250
Level datum	Sea level
1/250 or 1:1000	1:1000
plan number	40340
Drawing title	40340, T
Notes	0
Comments	This plan should not be used without the University's permission. It is the property of the University and should not be used for any other purpose. The design and content of this plan should not be used for any other purpose without the permission of the University. It is the property of the University and should not be used for any other purpose. This plan should not be used without the University's permission. It is the property of the University and should not be used for any other purpose.



APPENDIX 02

Site Photographs



Photograph 1
View north-west towards southern end of the existing structure.



Photograph 2
View north along area of car parking in the eastern section of the site.



Photograph 3
View north-west from A33.



Photograph 4
Pedestrian gate into south-western site area with sub-station in the adjacent trees.



Photograph 5
Vehicular access to the south-western site boundary.

APPENDIX 03

Groundsure Enviro & Geoinsight Report

ROSE KILN LANE, READING, RG2 0HP

Order Details

Date: 04/01/2022
Your ref: 10334G-_Rose_Kiln
Our Ref: HMD-424-8423870
Client: WML Consulting Ltd

Site Details

Location: 471309 172336
Area: 0.64 ha
Authority: [Reading Borough 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>	8	15	38	43	-
18	1.2	<u>Historical tanks</u>	0	10	23	15	-
20	1.3	<u>Historical energy features</u>	0	1	19	16	-
22	1.4	<u>Historical petrol stations</u>	0	0	2	6	-
23	1.5	<u>Historical garages</u>	0	0	2	11	-
23	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
24	2.1	<u>Historical industrial land uses</u>	9	18	51	55	-
29	2.2	<u>Historical tanks</u>	0	12	55	20	-
33	2.3	<u>Historical energy features</u>	0	6	50	28	-
36	2.4	<u>Historical petrol stations</u>	0	0	3	9	-
37	2.5	<u>Historical garages</u>	0	0	6	15	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
39	3.1	Active or recent landfill	0	0	0	0	-
39	3.2	Historical landfill (BGS records)	0	0	0	0	-
40	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
40	3.4	<u>Historical landfill (EA/NRW records)</u>	0	0	1	0	-
40	3.5	Historical waste sites	0	0	0	0	-
40	3.6	Licensed waste sites	0	0	0	0	-
41	3.7	<u>Waste exemptions</u>	0	0	0	12	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
43	4.1	<u>Recent industrial land uses</u>	0	2	22	-	-
45	4.2	<u>Current or recent petrol stations</u>	0	0	3	1	-
45	4.3	Electricity cables	0	0	0	0	-
45	4.4	Gas pipelines	0	0	0	0	-
46	4.5	Sites determined as Contaminated Land	0	0	0	0	-



46	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
46	4.7	Regulated explosive sites	0	0	0	0	-
46	4.8	Hazardous substance storage/usage	0	0	0	0	-
46	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
47	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
47	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	2	8	-
48	4.12	Radioactive Substance Authorisations	0	0	0	0	-
48	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	5	1	-
49	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
50	4.15	Pollutant release to public sewer	0	0	0	0	-
50	4.16	List 1 Dangerous Substances	0	0	0	0	-
50	4.17	List 2 Dangerous Substances	0	0	0	0	-
50	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	6	4	-
51	4.19	Pollution inventory substances	0	0	0	0	-
52	4.20	Pollution inventory waste transfers	0	0	0	0	-
52	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
53	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
55	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
57	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
58	5.4	<u>Groundwater vulnerability- soluble rock risk</u>	Identified (within 0m)				
58	5.5	Groundwater vulnerability- local information	None (within 0m)				
59	5.6	<u>Groundwater abstractions</u>	0	0	0	0	30
66	5.7	<u>Surface water abstractions</u>	0	0	0	0	8
68	5.8	<u>Potable abstractions</u>	0	0	0	0	23
73	5.9	Source Protection Zones	0	0	0	0	-
73	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
74	6.1	<u>Water Network (OS MasterMap)</u>	0	12	5	-	-



76	6.2	<u>Surface water features</u>	0	4	3	-	-
76	6.3	<u>WFD Surface water body catchments</u>	2	-	-	-	-
77	6.4	<u>WFD Surface water bodies</u>	0	1	1	-	-
77	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
78	7.1	<u>Risk of flooding from rivers and the sea</u>	High (within 50m)				
79	7.2	<u>Historical Flood Events</u>	0	0	4	-	-
79	7.3	Flood Defences	0	0	0	-	-
80	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
80	7.5	Flood Storage Areas	0	0	0	-	-
81	7.6	<u>Flood Zone 2</u>	Identified (within 50m)				
82	7.7	<u>Flood Zone 3</u>	Identified (within 50m)				
Page	Section	Surface water flooding					
83	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
85	9.1	<u>Groundwater flooding</u>	High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
86	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
86	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
86	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
86	10.4	Special Protection Areas (SPA)	0	0	0	0	0
87	10.5	National Nature Reserves (NNR)	0	0	0	0	0
87	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
87	10.7	Designated Ancient Woodland	0	0	0	0	0
87	10.8	Biosphere Reserves	0	0	0	0	0
88	10.9	Forest Parks	0	0	0	0	0
88	10.10	Marine Conservation Zones	0	0	0	0	0
88	10.11	Green Belt	0	0	0	0	0
88	10.12	Proposed Ramsar sites	0	0	0	0	0



88	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
89	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
89	10.15	Nitrate Sensitive Areas	0	0	0	0	0
89	10.16	<u>Nitrate Vulnerable Zones</u>	0	0	0	0	2
90	10.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
91	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
92	11.1	World Heritage Sites	0	0	0	-	-
92	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
92	11.3	National Parks	0	0	0	-	-
92	11.4	Listed Buildings	0	0	0	-	-
93	11.5	Conservation Areas	0	0	0	-	-
93	11.6	Scheduled Ancient Monuments	0	0	0	-	-
93	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
94	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
95	12.2	Open Access Land	0	0	0	-	-
95	12.3	Tree Felling Licences	0	0	0	-	-
95	12.4	Environmental Stewardship Schemes	0	0	0	-	-
95	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
96	13.1	<u>Priority Habitat Inventory</u>	0	0	4	-	-
97	13.2	Habitat Networks	0	0	0	-	-
97	13.3	Open Mosaic Habitat	0	0	0	-	-
97	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
98	14.1	<u>10k Availability</u>	Identified (within 500m)				
99	14.2	<u>Artificial and made ground (10k)</u>	1	0	5	4	-
101	14.3	<u>Superficial geology (10k)</u>	1	0	0	4	-



102	14.4	Landslip (10k)	0	0	0	0	-
103	14.5	<u>Bedrock geology (10k)</u>	1	0	3	2	-
104	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
105	15.1	<u>50k Availability</u>	Identified (within 500m)				
106	15.2	<u>Artificial and made ground (50k)</u>	0	0	4	1	-
107	15.3	Artificial ground permeability (50k)	0	0	-	-	-
108	15.4	<u>Superficial geology (50k)</u>	1	0	0	4	-
109	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
109	15.6	Landslip (50k)	0	0	0	0	-
109	15.7	Landslip permeability (50k)	None (within 50m)				
110	15.8	<u>Bedrock geology (50k)</u>	1	0	3	2	-
111	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
111	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
112	16.1	<u>BGS Boreholes</u>	3	2	35	-	-
Page	Section	Natural ground subsidence					
115	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
116	17.2	<u>Running sands</u>	Low (within 50m)				
118	17.3	<u>Compressible deposits</u>	Moderate (within 50m)				
120	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
121	17.5	<u>Landslides</u>	Very low (within 50m)				
123	17.6	<u>Ground dissolution of soluble rocks</u>	High (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
125	18.1	<u>Natural cavities</u>	0	0	0	12	-
127	18.2	<u>BritPits</u>	0	0	7	22	-
132	18.3	<u>Surface ground workings</u>	0	4	26	-	-
134	18.4	Underground workings	0	0	0	0	0
134	18.5	Historical Mineral Planning Areas	0	0	0	0	-



<u>134</u>	<u>18.6</u>	<u>Non-coal mining</u>	0	1	2	17	25
<u>139</u>	<u>18.7</u>	<u>Mining cavities</u>	0	0	1	10	22
<u>141</u>	<u>18.8</u>	<u>JPB mining areas</u>	Identified (within 0m)				
141	18.9	Coal mining	None (within 0m)				
141	18.10	Brine areas	None (within 0m)				
142	18.11	Gypsum areas	None (within 0m)				
142	18.12	Tin mining	None (within 0m)				
142	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<u>143</u>	<u>19.1</u>	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<u>144</u>	<u>20.1</u>	<u>BGS Estimated Background Soil Chemistry</u>	1	1	-	-	-
144	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
144	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
145	21.1	Underground railways (London)	0	0	0	-	-
145	21.2	Underground railways (Non-London)	0	0	0	-	-
146	21.3	Railway tunnels	0	0	0	-	-
<u>146</u>	<u>21.4</u>	<u>Historical railway and tunnel features</u>	3	13	10	-	-
147	21.5	Royal Mail tunnels	0	0	0	-	-
<u>147</u>	<u>21.6</u>	<u>Historical railways</u>	0	1	2	-	-
148	21.7	Railways	0	0	0	-	-
148	21.8	Crossrail 1	0	0	0	0	-
148	21.9	Crossrail 2	0	0	0	0	-
148	21.10	HS2	0	0	0	0	-



Recent aerial photograph



Capture Date: 29/06/2019

Site Area: 0.64ha



Recent site history - 2015 aerial photograph



Capture Date: 20/04/2015

Site Area: 0.64ha



Recent site history - 2013 aerial photograph



Capture Date: 08/07/2013

Site Area: 0.64ha



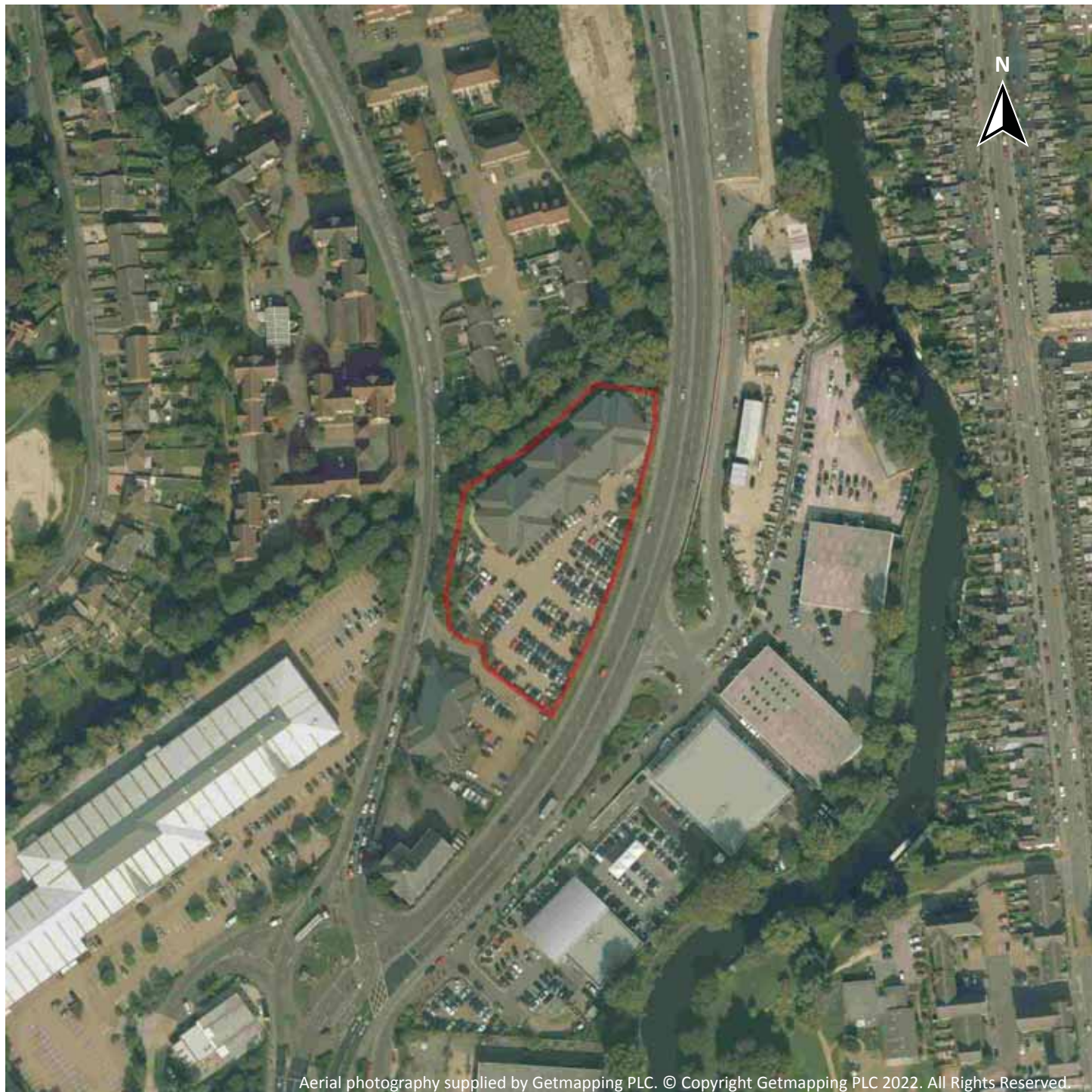
Contact us with any questions at:

info@groundsure.com

08444 159 000

Date: 4 January 2022

Recent site history - 2010 aerial photograph



Capture Date: 22/09/2010

Site Area: 0.64ha



Recent site history - 1999 aerial photograph

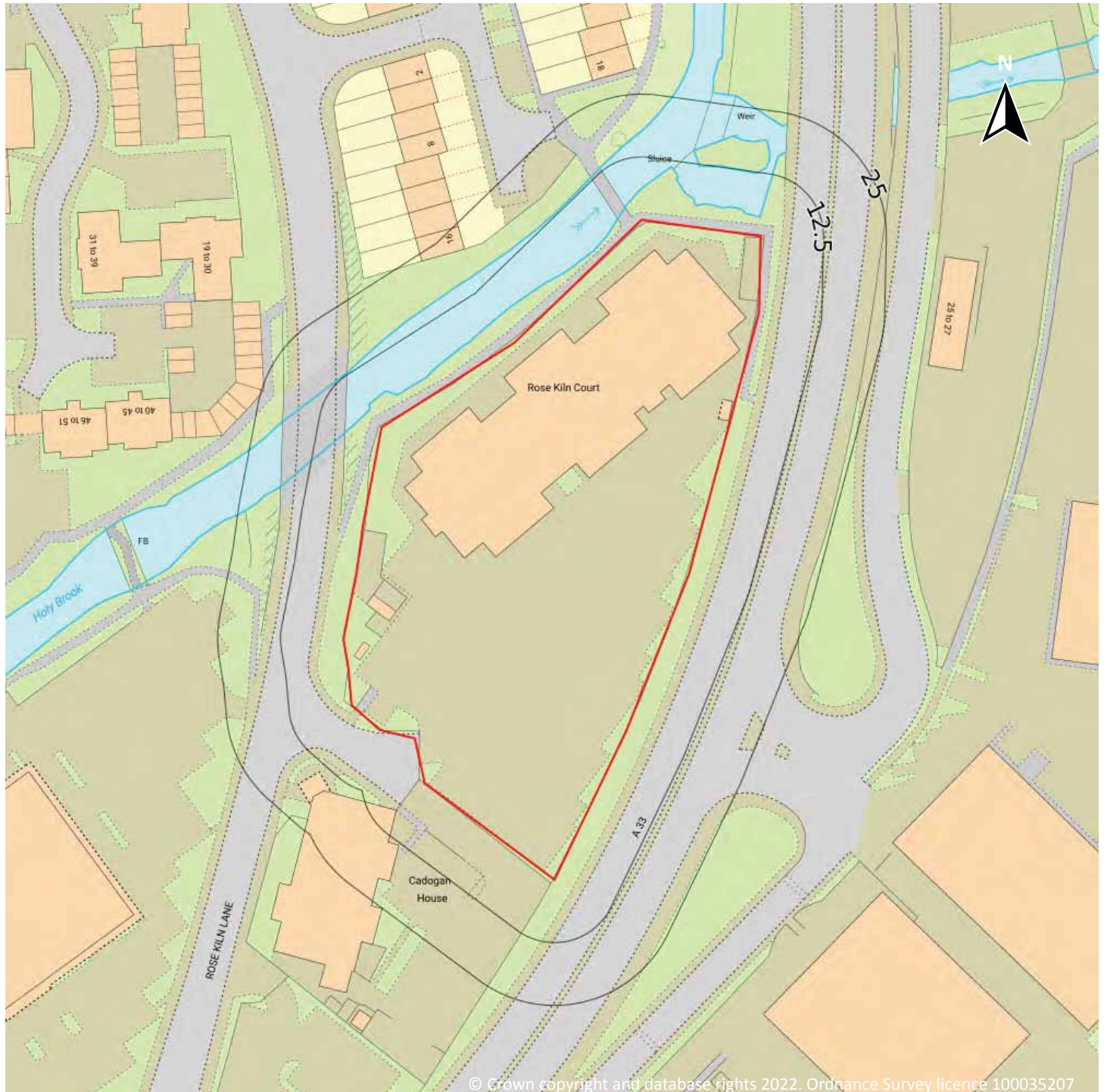


Capture Date: 04/09/1999

Site Area: 0.64ha



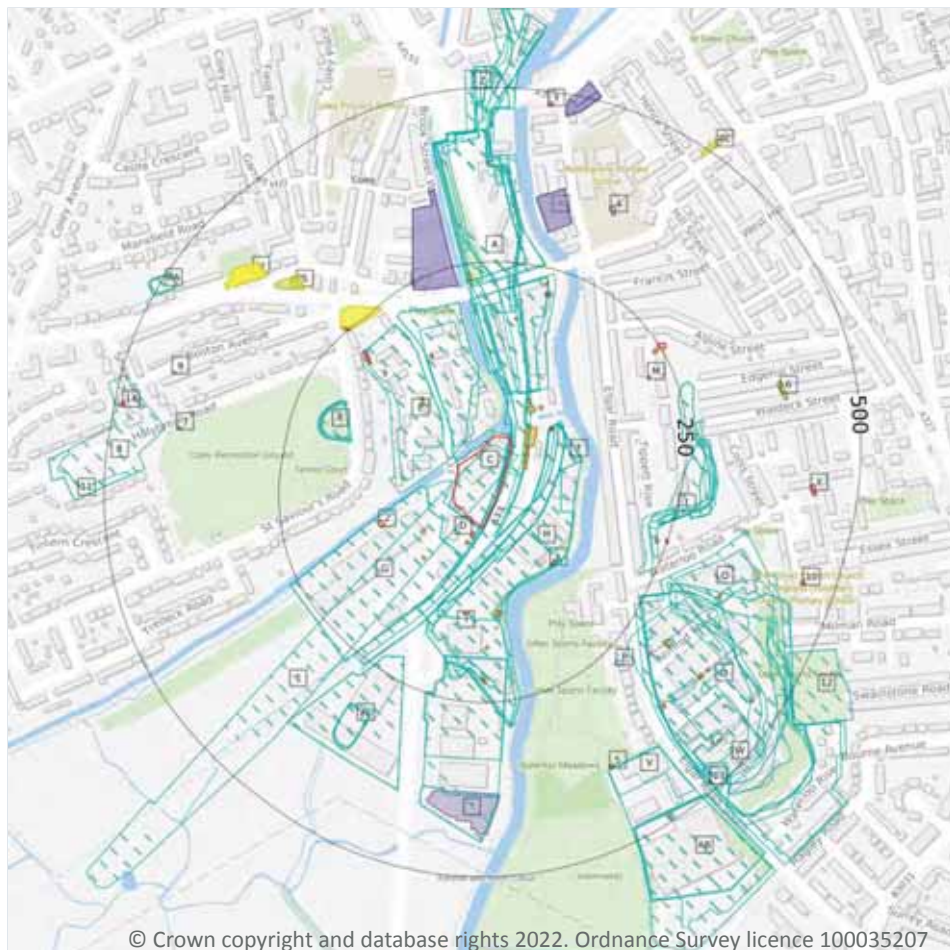
OS MasterMap site plan



Site Area: 0.64ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical petrol stations
- Historical garages

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1.1 Historical industrial land uses

Records within 500m

104

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

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

ID	Location	Land use	Dates present	Group ID
1	On site	Rifle Range	1898	1872282



ID	Location	Land use	Dates present	Group ID
A	On site	Railway Sidings	1962	1894468
A	On site	Railway Sidings	1938	1907664
A	On site	Railway Sidings	1938	1908437
A	On site	Railway Sidings	1913	1962341
B	On site	Unspecified Works	1977	1914779
B	On site	Industrial Estate	1989 - 1994	1919342
C	On site	Unspecified Works	1971	1898791
A	3m E	Railway Sidings	1933	1904836
D	4m SW	Unspecified Works	1977	1965042
E	16m NW	Unspecified Factory	1971	1953016
C	16m NW	Unspecified Depot	1977	1947927
C	24m NW	Unspecified Depot	1989 - 1994	1956956
D	24m SE	Railway Sidings	1933	1902089
G	28m SW	Unspecified Factory	1977	1859983
G	28m SW	Unspecified Works	1971	1925582
E	34m NW	Unspecified Factory	1977	1964746
H	35m SE	Unspecified Warehouses	1977	1887117
H	35m SE	Unspecified Warehouses	1989 - 1994	1914277
I	36m SE	Unspecified Works	1962	1860422
I	36m SE	Unspecified Commercial/Industrial	1971	1874679
I	43m SE	Preserve Works	1933 - 1938	1967012
I	48m S	Preserves Works	1938	1863483
A	61m N	Unspecified Works	1989 - 1994	1900248
A	65m N	Unspecified Works	1977	1907920
A	65m N	Unspecified Commercial/Industrial	1933 - 1938	1945307
F	79m E	Railway Building	1962	1866741
A	91m N	Railway Building	1938 - 1962	1921607
K	157m W	Unspecified Heap	1938	1959956



ID	Location	Land use	Dates present	Group ID
K	159m W	Unspecified Ground Workings	1938	1892732
K	159m W	Unspecified Ground Workings	1913	1953210
K	161m W	Unspecified Heap	1933	1937415
A	169m N	Unspecified Tank	1913	1858412
A	171m N	Railway Building	1938	1866745
A	177m N	Railway Sidings	1971	1896950
A	177m N	Railway Sidings	1977	1927457
A	179m N	Railway Building	1913	1866742
I	185m S	Unspecified Factory	1989 - 1994	1938208
I	187m S	Unspecified Factory	1977	1961613
I	197m S	Unspecified Ground Workings	1933 - 1938	1899063
I	200m S	Unspecified Heap	1938	1899337
L	207m E	Unspecified Ground Workings	1898	1931792
A	216m N	Goods Depot	1933	1941720
N	216m SW	Unspecified Warehouses	1977	1908293
N	216m SW	Unspecified Warehouses	1989 - 1994	1924878
L	218m E	Unspecified Ground Workings	1962	1941422
L	218m E	Unspecified Ground Workings	1977	1903118
A	221m N	Railway Building	1938	1866752
A	222m N	Goods Depot	1938	1957749
A	225m N	Unspecified Depot	1971	1921180
A	225m N	Unspecified Depot	1977	1966820
L	230m E	Unspecified Ground Workings	1913	1892819
L	230m E	Unspecified Ground Workings	1933 - 1938	1909208
L	235m E	Unspecified Pit	1938	1895631
O	243m SE	Unspecified Works	1962 - 1971	1900346
O	244m SE	Brick and Tile Works	1913	1911222
O	244m SE	Brick and Tile Works	1938	1949525



ID	Location	Land use	Dates present	Group ID
L	244m E	Unspecified Ground Workings	1962 - 1971	1886354
L	244m E	Unspecified Ground Workings	1977	1933175
O	247m SE	Brick and Tile Works	1933	1935116
O	247m SE	Brick and Tile Works	1938	1935514
O	264m SE	Unspecified Works	1977	1939428
P	268m SE	Unspecified Kilns	1898	1873721
A	269m N	Railway Building	1938	1866750
O	271m SE	Unspecified Ground Workings	1898	1949127
P	277m SE	Unspecified Kilns	1898	1873723
Q	280m E	Unspecified Warehouses	1977	1874842
Q	290m SE	Unspecified Ground Workings	1913	1906054
O	296m SE	Unspecified Warehouses	1977	1874841
N	305m SW	Unspecified Heap	1933	1943758
P	309m SE	Unspecified Tank	1913	1892495
P	309m SE	Unspecified Tank	1898	1918659
N	312m SW	Unspecified Heap	1938	1928878
N	313m SW	Unspecified Heap	1938	1897671
A	330m N	Railway Building	1938	1866744
O	347m E	Unspecified Pit	1962	1879441
O	357m SE	Unspecified Kilns	1898	1967223
A	360m N	Goods Depot	1913	1901578
O	362m SE	Unspecified Kilns	1933	1890213
A	363m N	Railway Building	1962	1943677
A	376m N	Railway Building	1913	1935791
T	378m S	Unspecified Works	1977	1917571
T	378m S	Unspecified Works	1989 - 1994	1944470
V	391m SE	Unspecified Works	1989 - 1994	1939605
V	392m SE	Unspecified Works	1977	1938997



ID	Location	Land use	Dates present	Group ID
W	403m SE	Unspecified Works	1989	1938388
O	413m SE	Unspecified Ground Workings	1933 - 1938	1934062
8	422m W	Unspecified Works	1898	1860421
O	424m E	Unspecified Ground Workings	1938	1893171
11	464m W	Unspecified Pit	1898	1879444
12	470m SE	Brick Works	1898	1864676
Z	478m N	Railway Building	1962	1866753
AA	478m NW	Unspecified Heap	1938	1945602
AA	479m NW	Unspecified Pit	1962	1879445
AB	480m SE	Printing Works	1933 - 1938	1944410
AA	480m NW	Unspecified Ground Workings	1933 - 1938	1968105
AB	480m SE	Printing Works	1938	1949791
AB	483m SE	Unspecified Works	1962 - 1971	1894055
AB	483m SE	Unspecified Works	1977	1922783
O	483m SE	Unspecified Ground Workings	1913	1962417
V	490m SE	Unspecified Tank	1933 - 1938	1955713
V	492m SE	Unspecified Tank	1938	1885249
Z	493m N	Railway Buildings	1913	1962923
Z	493m N	Railway Buildings	1938	1963273

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

48

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
F	19m E	Tanks	1932 - 1976	327905
F	20m E	Tanks	1976	310563
F	20m E	Tanks	1976	310565
F	22m E	Tanks	1976	310564
D	28m SW	Unspecified Tank	1996 - 1997	320128
D	30m SW	Unspecified Tank	1976	323772
D	31m SW	Unspecified Tank	1992	313945
D	31m SW	Unspecified Tank	1991	321946
D	31m SW	Unspecified Tank	1987	317799
F	45m NE	Tanks	1976	310567
F	54m NE	Unspecified Tank	1976	305766
D	55m SW	Unspecified Tank	1986 - 1987	313272
F	58m NE	Unspecified Tank	1957 - 1976	323407
D	83m SW	Unspecified Tank	1976	305771
E	100m NW	Unspecified Tank	1987	305770
E	106m NW	Unspecified Tank	1976 - 1987	327163
I	120m S	Unspecified Tank	1932	319624
I	122m S	Unspecified Tank	1957 - 1968	317231
I	123m S	Unspecified Tank	1976 - 1997	315386
C	143m NW	Tanks	1972	310568
I	143m S	Unspecified Tank	1957 - 1968	319205
C	144m NW	Unspecified Tank	1986 - 1991	324354
E	165m NW	Unspecified Tank	1976 - 1987	312696
I	168m S	Unspecified Tank	1957 - 1959	328228
A	169m N	Unspecified Tank	1912	305768
A	194m N	Unspecified Tank	1972	305767
M	213m NE	Unspecified Tank	1981 - 1987	315771
I	215m S	Tanks	1957 - 1968	322718



ID	Location	Land use	Dates present	Group ID
I	216m S	Tanks	1957 - 1963	316191
A	224m N	Tanks	1931	310566
A	225m N	Unspecified Tank	1972 - 1996	323558
A	237m NE	Tank or Trough	1879	320692
A	237m NE	Tank or Trough	1879	321128
P	306m SE	Unspecified Tank	1899	305773
Q	345m E	Unspecified Tank	1932	305765
O	373m SE	Unspecified Tank	1968	320515
O	376m SE	Unspecified Tank	1932 - 1969	317615
O	379m SE	Unspecified Tank	1968 - 1969	321765
6	388m E	Tanks	1879	310561
A	391m N	Tanks	1879	325211
7	399m W	Tanks	1879	310570
9	426m W	Unspecified Tank	1879	305769
O	427m SE	Unspecified Tank	1968 - 1969	325890
W	453m SE	Unspecified Tank	1966 - 1976	319041
W	454m SE	Unspecified Tank	1965	322503
O	456m SE	Tanks	1981	310562
13	485m SE	Unspecified Tank	1932	305774
V	488m SE	Unspecified Tank	1932	305776

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

36

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
D	13m SW	Electricity Substation	1976 - 1997	197673
F	56m E	Electricity Substation	1976 - 1992	211993
F	58m E	Electricity Substation	1996 - 1997	198185
E	100m NW	Electricity Substation	1986	189798
E	100m NW	Electricity Substations	1976	191567
2	104m W	Electricity Substation	1991 - 1997	209654
J	110m SE	Electricity Substation	1976 - 1992	196512
J	110m SE	Electricity Substation	1996 - 1997	212120
I	124m S	Electricity Substation	1987	189799
E	191m NW	Electricity Substation	1969 - 1972	205198
E	192m NW	Electricity Substation	1986	198885
A	208m N	Electricity Substation	1969 - 1991	208858
A	210m N	Electricity Substation	1968 - 1996	206490
L	232m E	Electricity Substation	1968 - 1981	208411
M	237m NE	Electricity Substation	1982	189796
3	244m NW	Electricity Substation	1986 - 1996	197506
M	245m NE	Electricity Substation	1968 - 1982	199112
L	247m E	Electricity Substation	1987	189794
E	248m NW	Electricity Substation	1968 - 1991	197451
E	250m NW	Electricity Substation	1995 - 1996	208703
P	297m SE	Electricity Substation	1981 - 1987	199887
N	315m SW	Electricity Substation	1996	193167
N	315m SW	Electricity Substation	1996	193663
N	315m SW	Electricity Substation	1997	193664
N	316m SW	Electricity Substation	1991	192136
N	316m SW	Electricity Substation	1992	193436
N	316m SW	Electricity Substation	1987	193803
N	316m SW	Electricity Substation	1986	194308



ID	Location	Land use	Dates present	Group ID
O	360m SE	Electricity Substation	1981	189795
5	386m SE	Electricity Substation	1976 - 1996	199173
X	431m E	Electricity Substation	1981	189782
X	435m E	Electricity Substation	1987	189783
W	448m SE	Electricity Substation	1976 - 1993	203877
10	449m E	Electricity Substation	1981 - 1987	203339
Y	479m N	Electricity Substation	1972 - 1996	196763
14	485m W	Electricity Substation	1967 - 1993	203848

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

8

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'.

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

ID	Location	Land use	Dates present	Group ID
E	244m NW	Filling Station	1968	3400
E	244m NW	Filling Station	1969 - 1972	3555
S	335m NW	Filling Station	1968	3435
S	336m NW	Filling Station	1969 - 1972	3493
U	385m NW	Filling Station	1968	3448
U	386m NW	Filling Station	1969 - 1976	3501
U	387m NW	Filling Station	1988	3399
AC	490m NE	Filling Station	1968 - 1969	3508

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

13

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
A	221m N	Garage	1969 - 1972	64162
A	221m N	Garage	1957 - 1968	64630
R	300m N	Garage	1968	62813
R	300m N	Garage	1969 - 1972	65361
S	336m NW	Garage	1957	61416
S	336m NW	Garage	1957	62275
S	350m NW	Garage	1959	62490
4	351m NE	Garage	1972	60824
T	379m S	Garage	1996	60825
Y	468m N	Garage	1957 - 1969	64678
Y	469m N	Garage	1972	61802
Y	469m N	Garage	1957 - 1968	64478
AC	490m NE	Garage	1957	62555

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

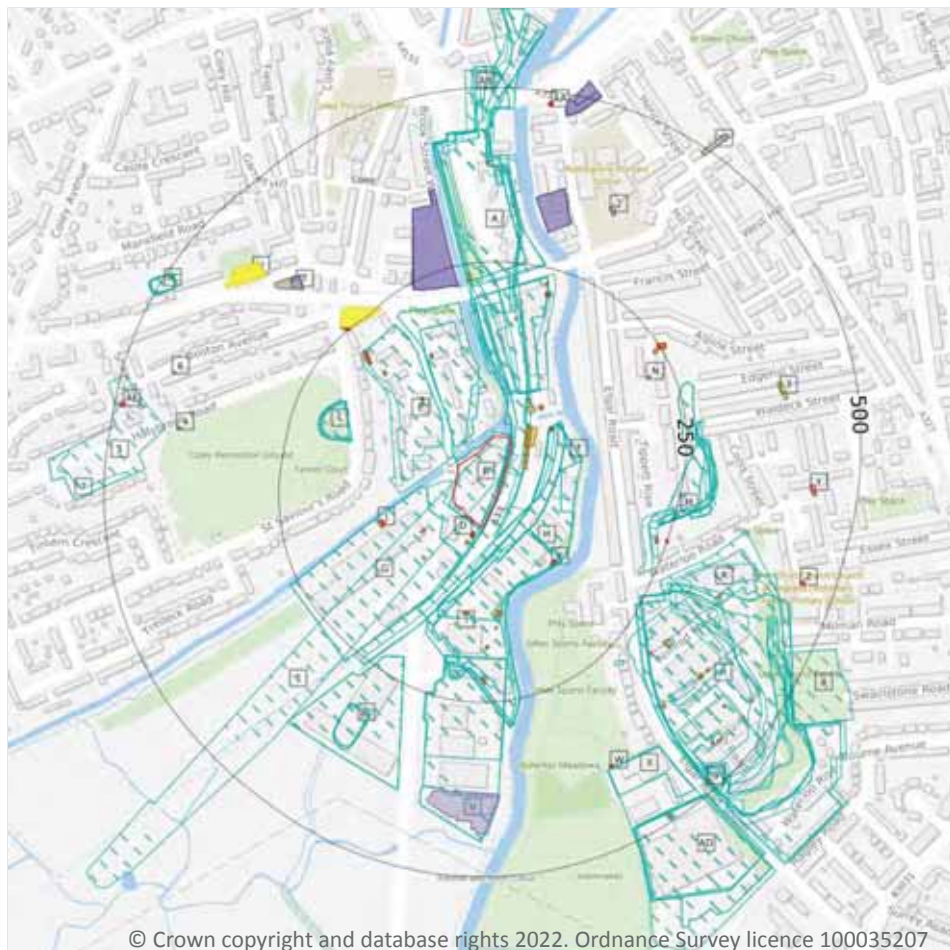
0

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 petrol stations
- Historical garages

2.1 Historical industrial land uses

Records within 500m

133

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

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

ID	Location	Land Use	Date	Group ID
1	On site	Rifle Range	1898	1872282
A	On site	Railway Sidings	1938	1908437
A	On site	Railway Sidings	1913	1962341

ID	Location	Land Use	Date	Group ID
A	On site	Railway Sidings	1962	1894468
A	On site	Railway Sidings	1938	1907664
B	On site	Industrial Estate	1994	1919342
B	On site	Industrial Estate	1989	1919342
B	On site	Unspecified Works	1977	1914779
C	On site	Unspecified Works	1971	1898791
A	3m E	Railway Sidings	1933	1904836
D	4m SW	Unspecified Works	1977	1965042
E	16m NW	Unspecified Factory	1971	1953016
C	16m NW	Unspecified Depot	1977	1947927
C	24m NW	Unspecified Depot	1994	1956956
C	24m NW	Unspecified Depot	1989	1956956
D	24m SE	Railway Sidings	1933	1902089
G	28m SW	Unspecified Factory	1977	1859983
G	28m SW	Unspecified Works	1971	1925582
E	34m NW	Unspecified Factory	1977	1964746
H	35m SE	Unspecified Warehouses	1994	1914277
H	35m SE	Unspecified Warehouses	1989	1914277
H	35m SE	Unspecified Warehouses	1977	1887117
I	36m SE	Unspecified Works	1962	1860422
I	36m SE	Unspecified Commercial/Industrial	1971	1874679
I	43m SE	Preserve Works	1938	1967012
I	47m SE	Preserve Works	1933	1967012
I	48m S	Preserves Works	1938	1863483
A	61m N	Unspecified Works	1994	1900248
A	61m N	Unspecified Works	1989	1900248
A	65m N	Unspecified Works	1977	1907920
A	65m N	Unspecified Commercial/Industrial	1938	1945307



ID	Location	Land Use	Date	Group ID
A	67m N	Unspecified Commercial/Industrial	1933	1945307
F	79m E	Railway Building	1962	1866741
A	91m N	Railway Building	1962	1921607
A	93m N	Railway Building	1938	1921607
L	157m W	Unspecified Heap	1938	1959956
L	157m W	Unspecified Heap	1938	1959956
L	159m W	Unspecified Ground Workings	1938	1892732
L	159m W	Unspecified Ground Workings	1913	1953210
L	161m W	Unspecified Heap	1933	1937415
A	169m N	Unspecified Tank	1913	1858412
A	171m N	Railway Building	1938	1866745
A	177m N	Railway Sidings	1977	1927457
A	177m N	Railway Sidings	1971	1896950
A	179m N	Railway Building	1913	1866742
I	185m S	Unspecified Factory	1994	1938208
I	185m S	Unspecified Factory	1989	1938208
I	187m S	Unspecified Factory	1977	1961613
I	197m S	Unspecified Ground Workings	1933	1899063
I	200m S	Unspecified Heap	1938	1899337
I	200m S	Unspecified Heap	1938	1899337
I	202m S	Unspecified Ground Workings	1938	1899063
M	207m E	Unspecified Ground Workings	1898	1931792
A	216m N	Goods Depot	1933	1941720
O	216m SW	Unspecified Warehouses	1994	1924878
O	216m SW	Unspecified Warehouses	1989	1924878
O	216m SW	Unspecified Warehouses	1977	1908293
M	218m E	Unspecified Ground Workings	1962	1941422
M	218m E	Unspecified Ground Workings	1977	1903118



ID	Location	Land Use	Date	Group ID
A	221m N	Railway Building	1938	1866752
A	222m N	Goods Depot	1938	1957749
A	225m N	Unspecified Depot	1977	1966820
A	225m N	Unspecified Depot	1971	1921180
M	230m E	Unspecified Ground Workings	1938	1909208
M	230m E	Unspecified Ground Workings	1913	1892819
M	232m E	Unspecified Ground Workings	1933	1909208
M	235m E	Unspecified Pit	1938	1895631
M	235m E	Unspecified Pit	1938	1895631
P	243m SE	Unspecified Works	1971	1900346
P	244m SE	Brick and Tile Works	1938	1949525
P	244m SE	Brick and Tile Works	1913	1911222
M	244m E	Unspecified Ground Workings	1977	1933175
M	244m E	Unspecified Ground Workings	1962	1886354
M	244m E	Unspecified Ground Workings	1971	1886354
P	245m SE	Unspecified Works	1962	1900346
P	247m SE	Brick and Tile Works	1933	1935116
P	247m SE	Brick and Tile Works	1938	1935514
P	247m SE	Brick and Tile Works	1938	1935514
P	264m SE	Unspecified Works	1977	1939428
P	268m SE	Unspecified Kilns	1898	1873721
A	269m N	Railway Building	1938	1866750
P	271m SE	Unspecified Ground Workings	1898	1949127
P	277m SE	Unspecified Kilns	1898	1873723
R	280m E	Unspecified Warehouses	1977	1874842
R	290m SE	Unspecified Ground Workings	1913	1906054
P	296m SE	Unspecified Warehouses	1977	1874841
O	305m SW	Unspecified Heap	1933	1943758



ID	Location	Land Use	Date	Group ID
P	309m SE	Unspecified Tank	1913	1892495
P	309m SE	Unspecified Tank	1898	1918659
O	312m SW	Unspecified Heap	1938	1928878
O	313m SW	Unspecified Heap	1938	1897671
O	313m SW	Unspecified Heap	1938	1897671
A	330m N	Railway Building	1938	1866744
P	347m E	Unspecified Pit	1962	1879441
P	357m SE	Unspecified Kilns	1898	1967223
A	360m N	Goods Depot	1938	1957749
A	360m N	Goods Depot	1913	1901578
P	362m SE	Unspecified Kilns	1933	1890213
A	363m N	Railway Building	1962	1943677
A	376m N	Railway Building	1913	1935791
U	378m S	Unspecified Works	1994	1944470
U	378m S	Unspecified Works	1989	1944470
U	378m S	Unspecified Works	1977	1917571
P	380m SE	Unspecified Works	1977	1939428
X	391m SE	Unspecified Works	1994	1939605
X	391m SE	Unspecified Works	1989	1939605
X	392m SE	Unspecified Works	1977	1938997
P	403m SE	Unspecified Works	1989	1938388
P	413m SE	Unspecified Ground Workings	1933	1934062
5	422m W	Unspecified Works	1898	1860421
P	424m E	Unspecified Ground Workings	1938	1893171
P	424m E	Unspecified Ground Workings	1938	1893171
P	429m SE	Unspecified Ground Workings	1938	1934062
7	464m W	Unspecified Pit	1898	1879444
8	470m SE	Brick Works	1898	1864676



ID	Location	Land Use	Date	Group ID
AB	478m N	Railway Building	1962	1866753
AC	478m NW	Unspecified Heap	1938	1945602
AC	478m NW	Unspecified Heap	1938	1945602
AC	479m NW	Unspecified Pit	1962	1879445
AD	480m SE	Printing Works	1933	1944410
AC	480m NW	Unspecified Ground Workings	1938	1968105
AD	480m SE	Printing Works	1938	1949791
AC	481m NW	Unspecified Ground Workings	1933	1968105
AD	482m SE	Printing Works	1938	1944410
AD	483m SE	Unspecified Works	1962	1894055
AD	483m SE	Unspecified Works	1971	1894055
AD	483m SE	Unspecified Works	1977	1922783
P	483m SE	Unspecified Ground Workings	1913	1962417
X	490m SE	Unspecified Tank	1933	1955713
X	491m SE	Unspecified Tank	1938	1955713
X	492m SE	Unspecified Tank	1938	1885249
AB	493m N	Railway Buildings	1938	1963273
AB	493m N	Railway Buildings	1913	1962923

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

87

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

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

ID	Location	Land Use	Date	Group ID
F	19m E	Tanks	1932	327905
F	20m E	Tanks	1976	310563



ID	Location	Land Use	Date	Group ID
F	20m E	Tanks	1976	310565
F	20m E	Tanks	1976	327905
F	22m E	Tanks	1976	310564
D	28m SW	Unspecified Tank	1996	320128
D	28m SW	Unspecified Tank	1997	320128
D	30m SW	Unspecified Tank	1976	323772
D	31m SW	Unspecified Tank	1992	313945
D	31m SW	Unspecified Tank	1991	321946
D	31m SW	Unspecified Tank	1987	317799
F	45m NE	Tanks	1976	310567
F	54m NE	Unspecified Tank	1976	305766
D	55m SW	Unspecified Tank	1987	313272
D	55m SW	Unspecified Tank	1986	313272
F	58m NE	Unspecified Tank	1957	323407
F	58m NE	Unspecified Tank	1976	323407
F	58m NE	Unspecified Tank	1963	323407
F	58m NE	Unspecified Tank	1959	323407
F	58m NE	Unspecified Tank	1968	323407
F	58m NE	Unspecified Tank	1957	323407
D	83m SW	Unspecified Tank	1976	305771
E	100m NW	Unspecified Tank	1987	305770
E	106m NW	Unspecified Tank	1976	327163
E	106m NW	Unspecified Tank	1987	327163
E	106m NW	Unspecified Tank	1986	327163
I	120m S	Unspecified Tank	1932	319624
I	122m S	Unspecified Tank	1959	317231
I	122m S	Unspecified Tank	1968	317231
I	122m S	Unspecified Tank	1957	317231



ID	Location	Land Use	Date	Group ID
I	122m S	Unspecified Tank	1957	317231
I	122m S	Unspecified Tank	1963	317231
I	123m S	Unspecified Tank	1992	315386
I	124m S	Unspecified Tank	1996	315386
I	124m S	Unspecified Tank	1997	315386
I	124m S	Unspecified Tank	1976	315386
I	124m S	Unspecified Tank	1986	315386
C	143m NW	Tanks	1972	310568
I	143m S	Unspecified Tank	1959	319205
I	143m S	Unspecified Tank	1968	319205
I	143m S	Unspecified Tank	1957	319205
I	144m S	Unspecified Tank	1957	319205
I	144m S	Unspecified Tank	1963	319205
C	144m NW	Unspecified Tank	1986	324354
C	144m NW	Unspecified Tank	1991	324354
E	165m NW	Unspecified Tank	1976	312696
E	166m NW	Unspecified Tank	1987	312696
E	166m NW	Unspecified Tank	1986	312696
I	168m S	Unspecified Tank	1959	328228
A	169m N	Unspecified Tank	1912	305768
I	169m S	Unspecified Tank	1957	328228
A	194m N	Unspecified Tank	1972	305767
N	213m NE	Unspecified Tank	1981	315771
N	213m NE	Unspecified Tank	1987	315771
I	215m S	Tanks	1968	322718
I	215m S	Tanks	1957	322718
I	215m S	Tanks	1959	322718
I	216m S	Tanks	1957	316191



ID	Location	Land Use	Date	Group ID
I	216m S	Tanks	1963	316191
A	224m N	Tanks	1931	310566
A	225m N	Unspecified Tank	1986	323558
A	225m N	Unspecified Tank	1991	323558
A	226m N	Unspecified Tank	1972	323558
A	227m N	Unspecified Tank	1995	323558
A	227m N	Unspecified Tank	1996	323558
A	237m NE	Tank or Trough	1879	320692
A	237m NE	Tank or Trough	1879	321128
P	306m SE	Unspecified Tank	1899	305773
R	345m E	Unspecified Tank	1932	305765
P	373m SE	Unspecified Tank	1968	320515
P	376m SE	Unspecified Tank	1969	317615
P	377m SE	Unspecified Tank	1932	317615
P	379m SE	Unspecified Tank	1969	321765
P	379m SE	Unspecified Tank	1968	321765
3	388m E	Tanks	1879	310561
A	391m N	Tanks	1879	325211
A	391m N	Tanks	1879	325211
4	399m W	Tanks	1879	310570
6	426m W	Unspecified Tank	1879	305769
P	427m SE	Unspecified Tank	1968	325890
P	428m SE	Unspecified Tank	1969	325890
P	453m SE	Unspecified Tank	1976	319041
P	453m SE	Unspecified Tank	1966	319041
P	454m SE	Unspecified Tank	1965	322503
P	456m SE	Tanks	1981	310562
9	485m SE	Unspecified Tank	1932	305774



ID	Location	Land Use	Date	Group ID
X	488m SE	Unspecified Tank	1932	305776

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	84
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Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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

ID	Location	Land Use	Date	Group ID
D	13m SW	Electricity Substation	1996	197673
D	13m SW	Electricity Substation	1997	197673
D	14m SW	Electricity Substation	1976	197673
D	15m SW	Electricity Substation	1987	197673
D	15m SW	Electricity Substation	1992	197673
D	15m SW	Electricity Substation	1991	197673
F	56m E	Electricity Substation	1987	211993
F	56m E	Electricity Substation	1986	211993
F	57m E	Electricity Substation	1992	211993
F	58m E	Electricity Substation	1996	198185
F	58m E	Electricity Substation	1997	198185
F	58m E	Electricity Substation	1976	211993
E	100m NW	Electricity Substation	1986	189798
E	100m NW	Electricity Substations	1976	191567
J	104m W	Electricity Substation	1996	209654
J	104m W	Electricity Substation	1997	209654
J	105m W	Electricity Substation	1992	209654
J	105m W	Electricity Substation	1991	209654
K	110m SE	Electricity Substation	1996	212120



ID	Location	Land Use	Date	Group ID
K	110m SE	Electricity Substation	1997	212120
K	110m SE	Electricity Substation	1987	196512
K	110m SE	Electricity Substation	1986	196512
K	110m SE	Electricity Substation	1992	196512
K	110m SE	Electricity Substation	1991	196512
K	112m SE	Electricity Substation	1976	196512
I	124m S	Electricity Substation	1987	189799
E	191m NW	Electricity Substation	1972	205198
E	191m NW	Electricity Substation	1969	205198
E	192m NW	Electricity Substation	1986	198885
A	208m N	Electricity Substation	1986	208858
A	208m N	Electricity Substation	1991	208858
A	209m N	Electricity Substation	1972	208858
A	209m N	Electricity Substation	1969	208858
A	210m N	Electricity Substation	1968	206490
A	210m N	Electricity Substation	1995	206490
A	210m N	Electricity Substation	1996	206490
M	232m E	Electricity Substation	1981	208411
M	232m E	Electricity Substation	1969	208411
M	232m E	Electricity Substation	1968	208411
N	237m NE	Electricity Substation	1982	189796
Q	244m NW	Electricity Substation	1986	197506
Q	244m NW	Electricity Substation	1991	197506
Q	244m NW	Electricity Substation	1995	197506
Q	244m NW	Electricity Substation	1996	197506
N	245m NE	Electricity Substation	1969	199112
N	246m NE	Electricity Substation	1979	199112
N	246m NE	Electricity Substation	1982	199112



ID	Location	Land Use	Date	Group ID
N	246m NE	Electricity Substation	1968	199112
M	247m E	Electricity Substation	1987	189794
E	248m NW	Electricity Substation	1968	197451
E	249m NW	Electricity Substation	1972	197451
E	249m NW	Electricity Substation	1969	197451
E	249m NW	Electricity Substation	1986	197451
E	249m NW	Electricity Substation	1991	197451
E	250m NW	Electricity Substation	1995	208703
E	250m NW	Electricity Substation	1996	208703
P	297m SE	Electricity Substation	1981	199887
P	297m SE	Electricity Substation	1987	199887
O	315m SW	Electricity Substation	1996	193167
O	315m SW	Electricity Substation	1996	193663
O	315m SW	Electricity Substation	1997	193664
O	316m SW	Electricity Substation	1987	193803
O	316m SW	Electricity Substation	1986	194308
O	316m SW	Electricity Substation	1992	193436
O	316m SW	Electricity Substation	1991	192136
P	360m SE	Electricity Substation	1981	189795
W	386m SE	Electricity Substation	1996	199173
W	386m SE	Electricity Substation	1976	199173
Y	431m E	Electricity Substation	1981	189782
Y	435m E	Electricity Substation	1987	189783
P	448m SE	Electricity Substation	1990	203877
P	448m SE	Electricity Substation	1993	203877
Z	449m E	Electricity Substation	1981	203339
P	449m SE	Electricity Substation	1976	203877
Z	450m E	Electricity Substation	1987	203339



ID	Location	Land Use	Date	Group ID
AA	479m N	Electricity Substation	1986	196763
AA	479m N	Electricity Substation	1991	196763
AA	480m N	Electricity Substation	1972	196763
AA	481m N	Electricity Substation	1995	196763
AA	481m N	Electricity Substation	1996	196763
AE	485m W	Electricity Substation	1968	203848
AE	485m W	Electricity Substation	1967	203848
AE	487m W	Electricity Substation	1988	203848
AE	487m W	Electricity Substation	1993	203848

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

12

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'.

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

ID	Location	Land Use	Date	Group ID
E	244m NW	Filling Station	1968	3400
E	244m NW	Filling Station	1972	3555
E	244m NW	Filling Station	1969	3555
T	335m NW	Filling Station	1968	3435
T	336m NW	Filling Station	1972	3493
T	336m NW	Filling Station	1969	3493
V	385m NW	Filling Station	1968	3448
V	386m NW	Filling Station	1976	3501
V	386m NW	Filling Station	1969	3501
V	387m NW	Filling Station	1988	3399
AF	490m NE	Filling Station	1969	3508



ID	Location	Land Use	Date	Group ID
AF	490m NE	Filling Station	1968	3508

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	21
----------------------------	-----------

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

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

ID	Location	Land Use	Date	Group ID
A	221m N	Garage	1972	64162
A	221m N	Garage	1969	64162
A	221m N	Garage	1957	64630
A	222m N	Garage	1968	64630
A	222m N	Garage	1957	64630
A	222m N	Garage	1959	64630
S	300m N	Garage	1972	65361
S	300m N	Garage	1968	62813
S	300m N	Garage	1969	65361
T	336m NW	Garage	1957	61416
T	336m NW	Garage	1957	62275
T	350m NW	Garage	1959	62490
2	351m NE	Garage	1972	60824
U	379m S	Garage	1996	60825
AA	468m N	Garage	1969	64678
AA	469m N	Garage	1972	61802
AA	469m N	Garage	1957	64678
AA	469m N	Garage	1968	64478
AA	469m N	Garage	1957	64478

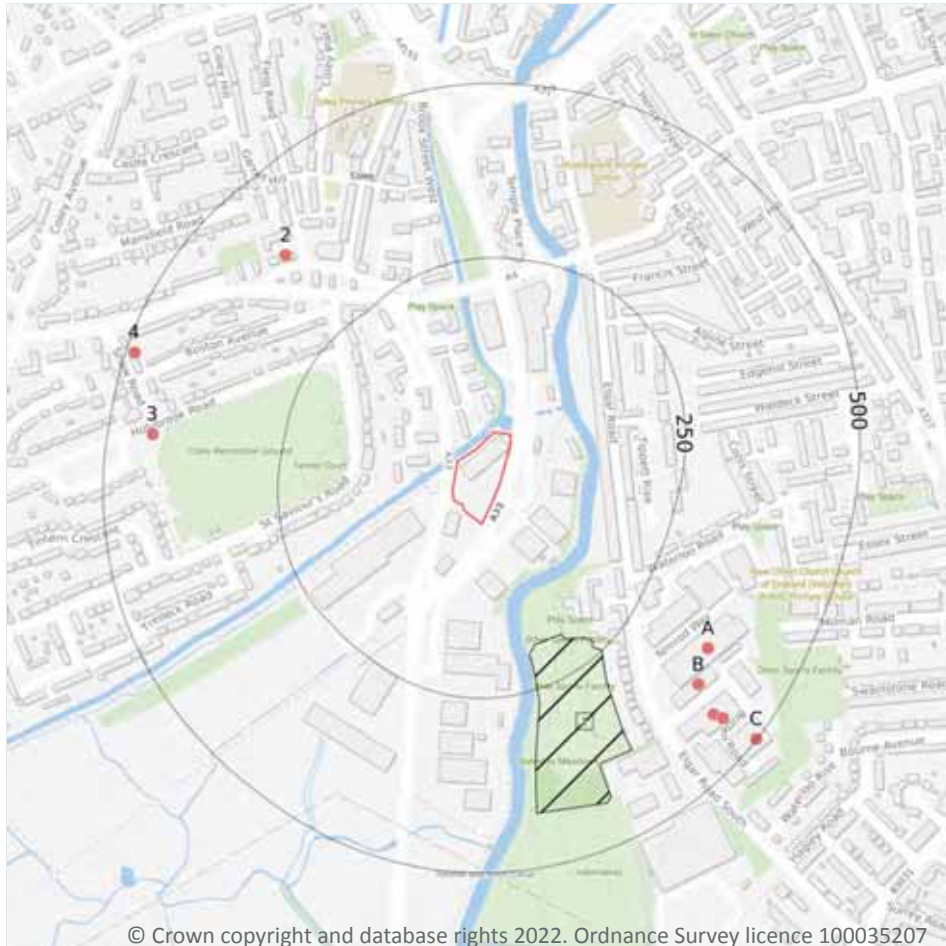


ID	Location	Land Use	Date	Group ID
AA	469m N	Garage	1959	64478
AF	490m NE	Garage	1957	62555

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 39**

ID	Location	Details		
1	188m SE	Site Address: Waterloo Meadows, Reading, Berkshire Licence Holder Address: -	Waste Licence: - Site Reference: TP0154, RDG8 Waste Type: Inert, Industrial 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

12

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 39**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	369m SE	Nimrod Industrial Estate Unit 4 Nimrod Way READING RG2 0EB	EPR/PF0504TH /A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
A	369m SE	Wilson Elec Unit 4 Nimrod Way Berks rg2 0eb	EPR/DF0935E D/A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
2	384m NW	Creek Common Northney Road Hampshire PO11 0NG	EPR/BE5042LU /A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Burning waste in the open
B	386m SE	7, ROBERT CORT INDUSTRIAL ESTATE, BRITTEN ROAD, READING, RG2 0AU	WEX159450	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
B	386m SE	7, ROBERT CORT INDUSTRIAL ESTATE, BRITTEN ROAD, READING, RG2 0AU	WEX159450	Storing waste exemption	Not on a Farm	Storage of waste in secure containers
B	429m SE	Robert Cort Industrial Estate 10 Britten Road READING RG2 0AU	EPR/MF0537R N/A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
3	437m W	-	WEX216124	Using waste exemption	Not on a farm	Use of waste in construction
B	444m SE	-	WEX242663	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	444m SE	-	WEX242663	Storing waste exemption	Not on a farm	Storage of waste in secure containers
4	489m W	Garage, 03 Shaw Road, Reading, RG1 6JX	EA/EPR/VP395 3KW/A001	Treating waste exemption	Not on a farm	Repair or refurbishment of WEEE
C	499m SE	UNIT 15, THE HAYES TRADING ESTATE, FOLKES ROAD, STOURBRIDGE, DY9 8RG	WEX098792	Storing waste exemption	Not on a farm	Storage of waste in secure containers

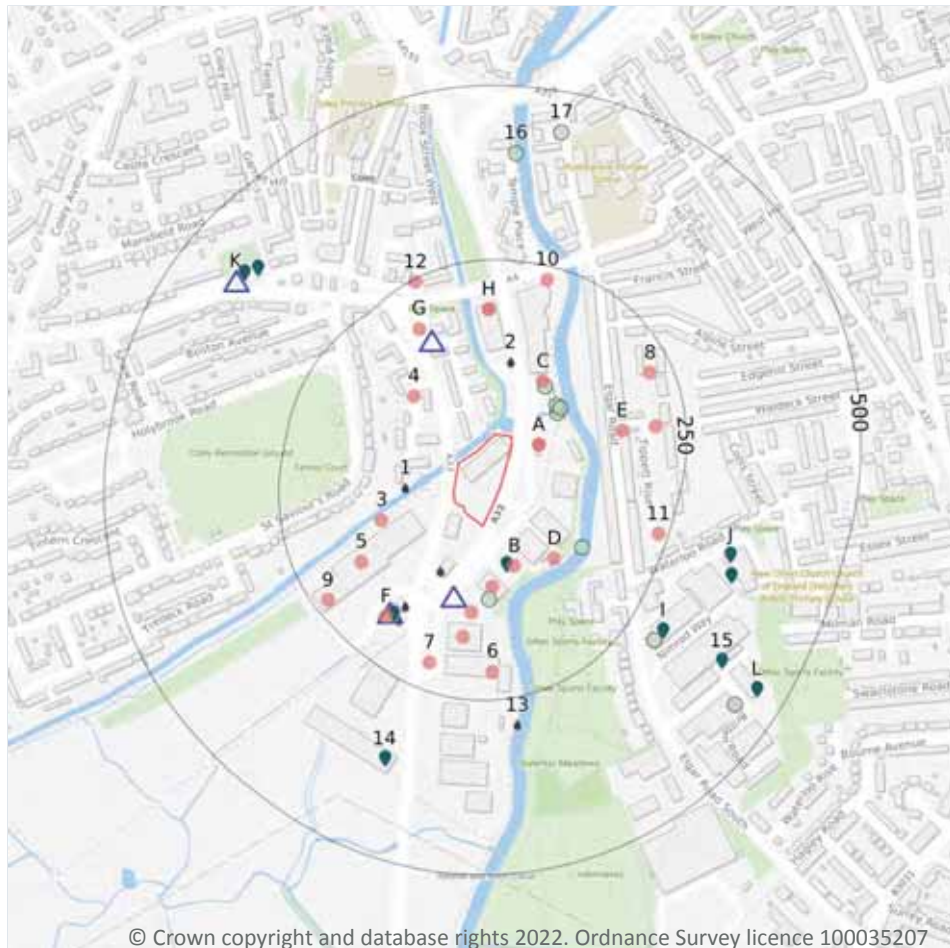


ID	Location	Site	Reference	Category	Sub-Category	Description
C	499m SE	UNIT 15, THE HAYES TRADING ESTATE, FOLKES ROAD, STOURBRIDGE, DY9 8RG	WEX098792	Storing waste exemption	Not on a farm	Storage of waste in a secure place

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

24

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 43**

ID	Location	Company	Address	Activity	Category
A	39m E	W L M G	25-27, Rose Kiln Lane, Reading, Berkshire, RG2 0JZ	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	39m E	W L M G	25-27, Rose Kiln Lane, Reading, Berkshire, RG2 0JZ	New Vehicles	Motoring
B	73m SE	Brammer	Unit 3, Rose Kiln Lane, Reading, Berkshire, RG2 0JZ	General Purpose Machinery	Industrial Products



ID	Location	Company	Address	Activity	Category
B	89m S	Marshall Skoda Reading	Marshall Skoda, Rose Kiln Lane, Reading, Berkshire, RG2 0JZ	New Vehicles	Motoring
C	91m NE	Electricity Sub Station	Berkshire, RG2	Electrical Features	Infrastructure and Facilities
3	108m W	Electricity Sub Station	Berkshire, RG2	Electrical Features	Infrastructure and Facilities
D	112m SE	Electricity Sub Station	Berkshire, RG2	Electrical Features	Infrastructure and Facilities
4	116m NW	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
B	125m S	Tank	Berkshire, RG2	Tanks (Generic)	Industrial Features
E	158m E	Whitehouse Studios Ltd	79, Elgar Road, Reading, Berkshire, RG2 0DH	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
5	159m SW	Bensons for Beds	Rose Kiln Lane, Reading, Berkshire, RG2 0SN	Beds and Bedding	Consumer Products
B	161m S	Eden Reading Hyundai	Unit 2, Rose Kiln Lane, Reading, Berkshire, RG2 0JZ	New Vehicles	Motoring
H	179m N	Lok'n Store Ltd	251, A33 Relief Road, Reading, Berkshire, RG2 0RR	Container and Storage	Transport, Storage and Delivery
H	179m N	Jordans Autocare	251, A33 Relief Road, Reading, Berkshire, RG2 0RR	Vehicle Parts and Accessories	Motoring
G	187m NW	Pumping Station	Berkshire, RG1	Water Pumping Stations	Industrial Features
F	187m SW	BP Service Station	Reading Rose Kiln Service Station, Rose Kiln Lane, Reading, Berkshire, RG2 0HP	Petrol and Fuel Stations	Road and Rail
E	206m E	Electricity Sub Station	Berkshire, RG2	Electrical Features	Infrastructure and Facilities
6	209m S	Sixt	Fronting Rose Kiln Lane, Reading, Berkshire, RG2 0JZ	Vehicle Hire and Rental	Hire Services
7	210m S	Electricity Sub Station	Berkshire, RG2	Electrical Features	Infrastructure and Facilities
8	218m NE	Tank	Berkshire, RG1	Tanks (Generic)	Industrial Features
9	230m SW	Bensons for Beds	B1, Reading Link Retail Park, Rose Kiln Lane, Reading, Berkshire, RG2 0SN	Beds and Bedding	Consumer Products



ID	Location	Company	Address	Activity	Category
10	231m N	Tank	Berkshire, RG2	Tanks (Generic)	Industrial Features
11	236m E	Electricity Sub Station	Berkshire, RG2	Electrical Features	Infrastructure and Facilities
12	246m NW	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

4

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 43**

ID	Location	Company	Address	LPG	Status
B	110m SW	OBSOLETE	Reading Road, Reading, Reading, RG8 9NL	Not Applicable	Obsolete
G	162m NW	OBSOLETE	Berkeley Avenue, Reading, Reading, RG1 6JS	Not Applicable	Obsolete
F	180m SW	BP	Rose Kiln Lane, Reading, Reading, RG2 0HP	No	Open
K	412m NW	ESSO	10, Berkeley Avenue, Reading, Reading, RG1 6JE	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

10

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 43**

ID	Location	Address	Details	
B	64m SE	Dw Archer, Rose Kiln Lane, RG2 0JW	Process: Timber Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
F	177m SW	Malthurst Fuels Limited, Malthurst Reading Service Station, Rose Kiln Lane, Reading, RG2 0LJ	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
I	297m SE	Car World Accident Repair Centre Elgar Estate, Preston Road, RG2 0BE	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
J	343m E	Autodex Limited, Unit 2 Elgar Estate, Preston Road, Reading, RG2 0BE	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
J	354m E	Prestige Quality Repair Centre Ltd, Unit 2 Elgar Industrial Estate, Preston Road, Reading, RG2 0BE	Process: Respraying of Road Vehicles Status: Current Permit Permit Type: Part B	Enforcement: Enforcements Notified Date of enforcement: Enforcements Notified Comment: Enforcements Notified



ID	Location	Address	Details	
14	362m SW	Rygor Commercials Ltd, Unit 8/9 Rose Kiln Lane, Reading, RG2 0JJ	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
15	392m SE	Britten Autos, Unit 15-17 Robert Cort Industrial Estate, Britten Road, Reading, RG2 0AU	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
K	400m NW	Save Serv Station (Reading), Berkeley Avenue, Reading, RG1 6JE	Process: Petrol Vapour Recovery Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
K	411m NW	ROC UK Ltd, Berkeley Service Station (Esso), 10 Berkeley Avenue, Reading, Berkshire, RG1 6JT	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
L	455m SE	Sunnyside Autos Limited, Unit 31, Robert Cort Industrial Estate, Britten Road, Reading, RG2 0AU	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

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

6

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 43**



ID	Location	Address	Details	
1	69m W	HOUSING DEVELOPMENT, ROSE KILN LANE, HOUSING DEVELOPMENT ROSE KILN L, ANE READING BERKSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.2920 Permit Version: 1 Receiving Water: HOLY BROOK	Status: REVOKED - UNSPECIFIED Issue date: 01/12/1988 Effective Date: 01/12/1988 Revocation Date: 11/02/1992
B	89m SW	R. C. PRODUCTS, ROSE KILN LANE, REA, R. C. PRODUCTS ROSE KILN LANE, READING BERKS	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.1165 Permit Version: 1 Receiving Water: ALLUVIUM	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 01/09/1986 Effective Date: 01/09/1986 Revocation Date: 01/10/1996
2	105m N	STORAGE YARD, 5/9 BERKELEY AVENUE, STORAGE YARD 5/9 BERKELEY AVENU, E READING BERKSHIRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.2914 Permit Version: 1 Receiving Water: ALLUVIUM	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 01/12/1988 Effective Date: 01/12/1988 Revocation Date: 01/10/1996
F	159m SW	PETROL STATION, ROSE KILN LANE, REA, PETROL STATION ROSE KILN LANE, READING BERKSHIRE	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: CNTM.1317 Permit Version: 1 Receiving Water: COLEY DITCH	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 04/03/1994 Effective Date: 04/03/1994 Revocation Date: 11/08/2009
F	181m SW	FORMER KEE KLAMPS SITE, ROSE KILN L, FORMER KEE KLAMPS SITE ROSE KIL, N LANE READING BERKSHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.2951 Permit Version: 1 Receiving Water: TRIBUTARY OF RIVER KENNET	Status: REVOKED - UNSPECIFIED Issue date: 02/12/1988 Effective Date: 02/12/1988 Revocation Date: 27/06/1991
13	289m S	REAR OF 'TOYS R US' WAREHOUSE, ROSE, REAR OF 'TOYS R US' WAREHOUSE R, OSE KILN LANE READING RG 2 0J, W	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.0664 Permit Version: 1 Receiving Water: RIVER KENNET	Status: REVOKED - UNSPECIFIED Issue date: 17/02/1986 Effective Date: 17/02/1986 Revocation Date: 27/06/1991

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0
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Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

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



4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m

0

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

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

4.17 List 2 Dangerous Substances

Records within 500m

0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

10

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

Features are displayed on the Current industrial land use map on **page 43**

ID	Location	Details	
C	74m NE	Incident Date: 23/11/2001 Incident Identification: 44616 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
C	78m NE	Incident Date: 14/03/2002 Incident Identification: 64039 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

ID	Location	Details	
C	80m NE	Incident Date: 03/04/2002 Incident Identification: 68626 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
C	86m NE	Incident Date: 06/07/2001 Incident Identification: 14409 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)
B	106m S	Incident Date: 07/01/2002 Incident Identification: 50992 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
D	141m SE	Incident Date: 16/07/2003 Incident Identification: 174051 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
I	294m SE	Incident Date: 12/02/2003 Incident Identification: 136455 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
16	404m N	Incident Date: 14/11/2001 Incident Identification: 42787 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
L	441m SE	Incident Date: 25/04/2002 Incident Identification: 74697 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
17	442m N	Incident Date: 13/08/2003 Incident Identification: 181888 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

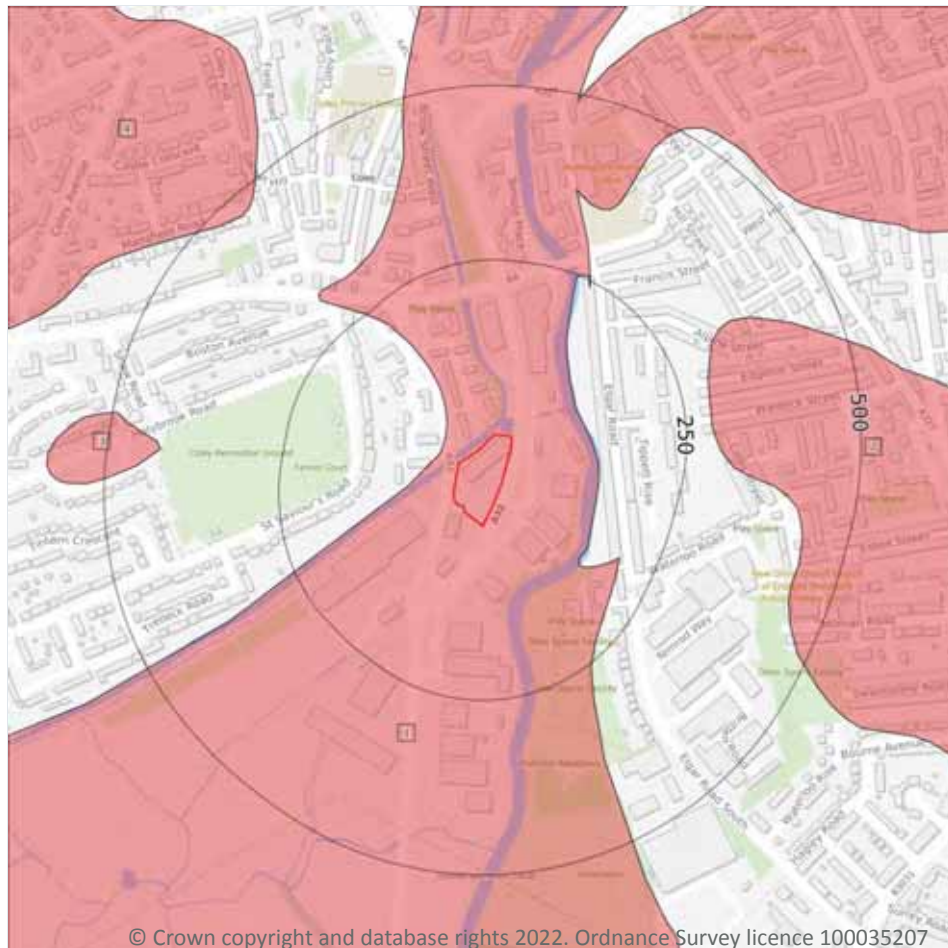
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The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for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

4

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 53**

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	287m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

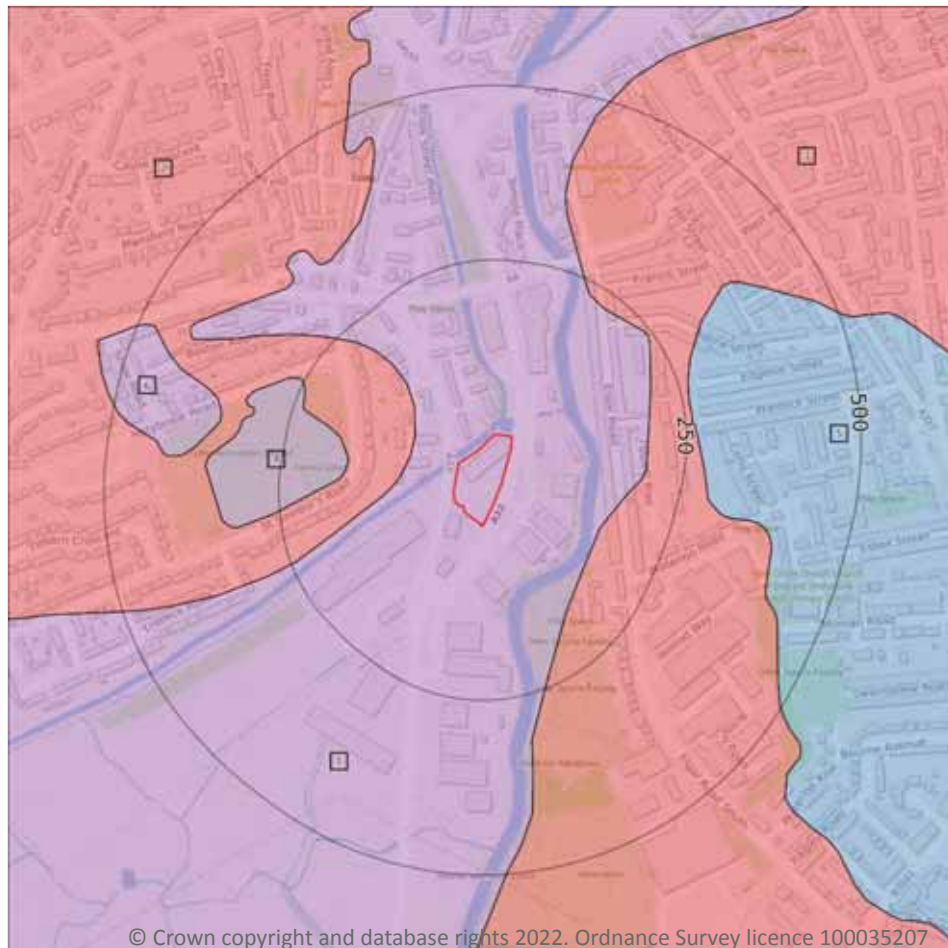


ID	Location	Designation	Description
3	424m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	471m NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



Bedrock aquifer



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

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5.2 Bedrock aquifer

Records within 500m

6

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 55**

ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	70m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

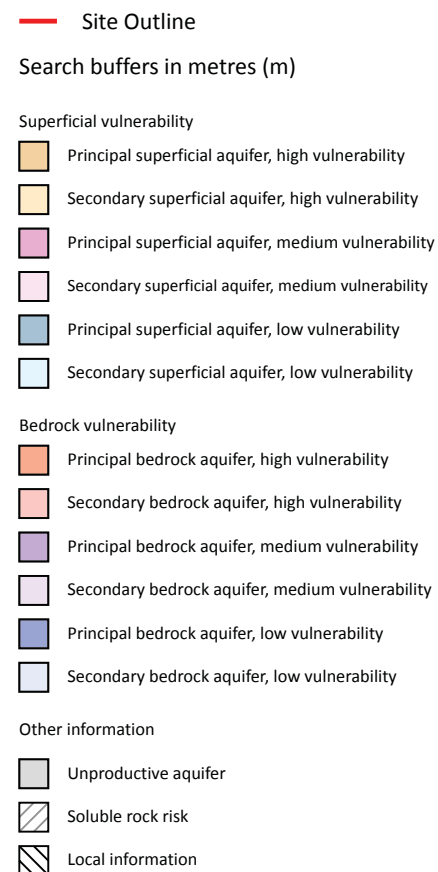
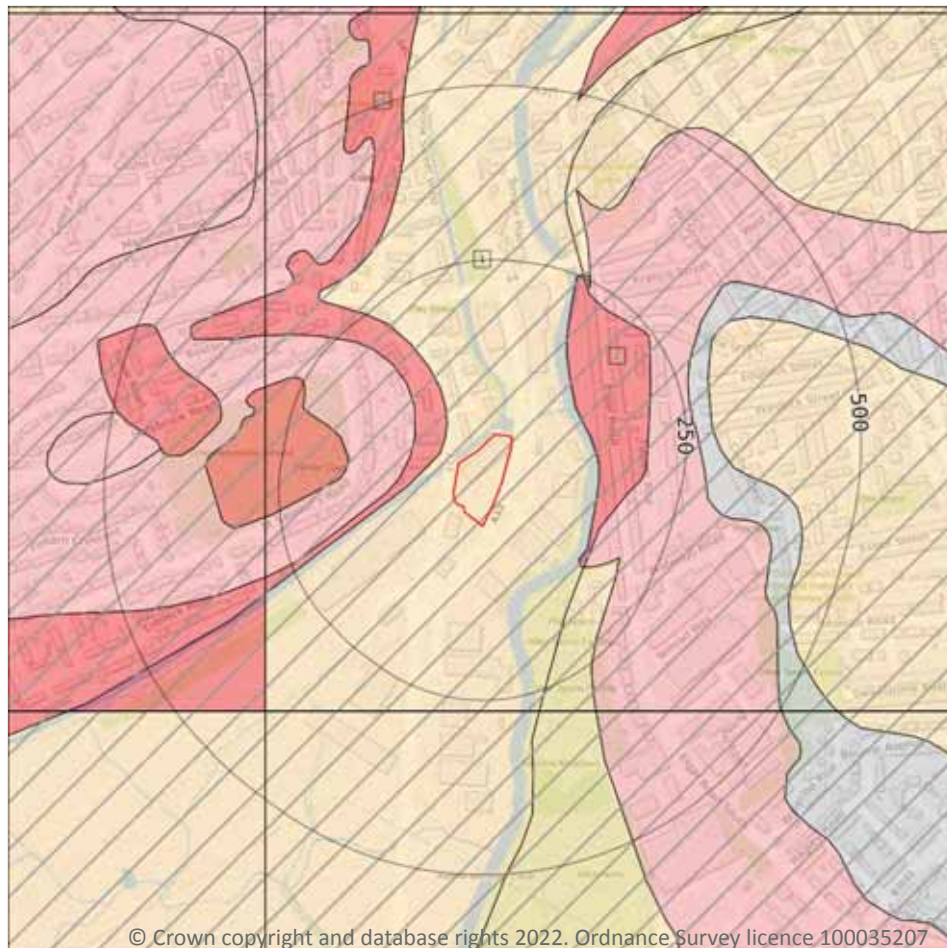


ID	Location	Designation	Description
3	154m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	156m W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
5	259m E	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
6	346m W	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

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

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

Features are displayed on the Groundwater vulnerability map on **page 57**



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures
3	30m NW	Summary Classification: Principal bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
2	Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.	8.0%

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

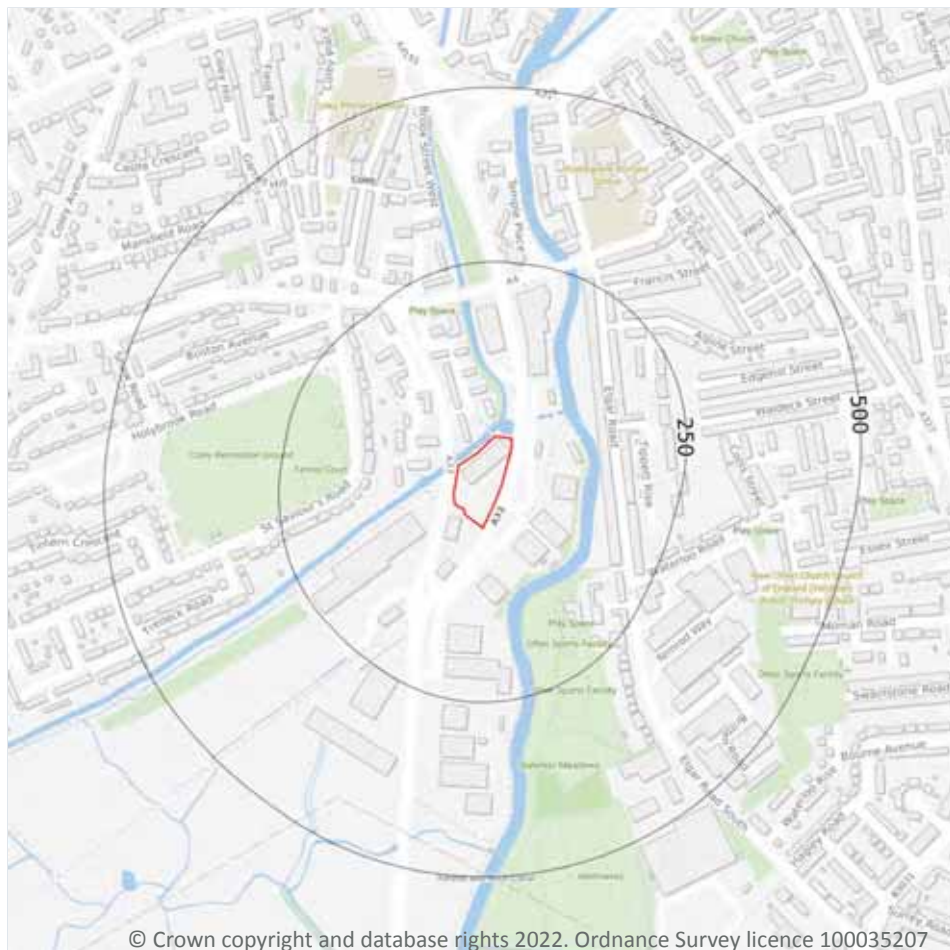
5.5 Groundwater vulnerability- local information

Records on site	0
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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
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

30

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 59**

ID	Location	Details	
-	1110m N	Status: Active Licence No: 28/39/23/0042 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CHEAPSIDE, READING, BERKSHIRE Data Type: Point Name: PRIMARK STORES LIMITED Easting: 471200 Northing: 173500	Annual Volume (m ³): 14,933 Max Daily Volume (m ³): 40.91 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1124m E	Status: Active Licence No: 28/39/22/0521 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: ROYAL BERKSHIRE HOSPITAL Data Type: Point Name: ROYAL BERKSHIRE HOSPITAL Easting: 472400 Northing: 172800	Annual Volume (m ³): 127,750 Max Daily Volume (m ³): 350 Original Application No: - Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 17/01/1992 Version End Date: -
-	1157m S	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'D' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470970 Northing: 171160	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1157m S	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH D' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470970 Northing: 171160	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1161m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'A' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470850 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -



ID	Location	Details	
-	1183m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH A' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470840 Northing: 171180	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1195m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'B' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470770 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1212m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'C' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470680 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1212m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH C' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470680 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1213m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH B' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470770 Northing: 171180	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -



ID	Location	Details	
-	1250m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'G' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470610 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1250m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH G' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470610 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1309m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'H' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470660 Northing: 171130	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1309m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH H' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470660 Northing: 171130	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1412m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'F' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470380 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -



ID	Location	Details	
-	1412m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH F' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470380 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1465m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'E' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470300 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1465m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH E' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470300 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1756m N	Status: Historical Licence No: 28/39/23/0041 Details: Non-Evaporative Cooling Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING, BERKSHIRE Data Type: Point Name: COX & WYMAN LTD Easting: 470900 Northing: 174100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/07/1966 Version End Date: -
-	1756m N	Status: Historical Licence No: 28/39/23/0041 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING, BERKSHIRE Data Type: Point Name: COX & WYMAN LTD Easting: 470900 Northing: 174100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/07/1966 Version End Date: -



ID	Location	Details	
-	1756m N	Status: Active Licence No: 28/39/23/0167 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: MEADOW ROAD, READING, BERKSHIRE Data Type: Point Name: MANROSE MANUFACTURING LTD Easting: 470900 Northing: 174100	Annual Volume (m ³): 90,920 Max Daily Volume (m ³): 727.40 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -
-	1756m N	Status: Active Licence No: 28/39/23/0167 Details: Non-Evaporative Cooling Direct Source: THAMES GROUNDWATER Point: MEADOW ROAD, READING, BERKSHIRE Data Type: Point Name: MANROSE MANUFACTURING LTD Easting: 470900 Northing: 174100	Annual Volume (m ³): 90,920 Max Daily Volume (m ³): 727.40 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -
-	1760m NW	Status: Active Licence No: 28/39/23/0128 Details: Process Water Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING POINT B Data Type: Point Name: HILLIER GROUP OF COMPANIES Easting: 470600 Northing: 174000	Annual Volume (m ³): 6,682 Max Daily Volume (m ³): 27.28 Original Application No: - Original Start Date: 22/01/1975 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1775m W	Status: Historical Licence No: 28/39/22/0266 Details: General use relating to Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: RAILTRACK PROPERTY, SOUTHCOTE, READING Data Type: Point Name: NETWORK RAIL INFRASTR LTD Easting: 469600 Northing: 171700	Annual Volume (m ³): 250035 Max Daily Volume (m ³): 909.22 Original Application No: - Original Start Date: 12/12/1966 Expiry Date: - Issue No: 101 Version Start Date: 03/02/2003 Version End Date: -
-	1776m E	Status: Historical Licence No: 28/39/22/0077 Details: General use relating to Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: WHITEKNIGHTS PARK, READING Data Type: Point Name: UNIVERSITY OF READING Easting: 473000 Northing: 171700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 14/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/04/1993 Version End Date: -



ID	Location	Details	
-	1809m NE	Status: Historical Licence No: 28/39/22/0600 Details: Pollution Remediation Direct Source: THAMES GROUNDWATER Point: FORMER GASWORKS, KENAVON DRIVE, READING (5 BOREHOLES) Data Type: Point Name: M J GLEESON GROUP PLC Easting: 472700 Northing: 173600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 31/07/2000 Expiry Date: 31/08/2001 Issue No: 1 Version Start Date: 31/07/2000 Version End Date: -
-	1814m E	Status: Historical Licence No: 28/39/22/0077 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: WHITEKNIGHTS PARK - READING - BOREHOLE Data Type: Point Name: UNIVERSITY OF READING Easting: 473040 Northing: 171700	Annual Volume (m ³): 240000 Max Daily Volume (m ³): 1032 Original Application No: - Original Start Date: 14/03/1966 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2011 Version End Date: -
-	1856m S	Status: Historical Licence No: 28/39/22/0612 Details: Laundry Use Direct Source: THAMES GROUNDWATER Point: DARWIN CLOSE, WHITLEY, READING, BERKSHIRE Data Type: Point Name: CLEAN LINEN SERVICES LTD Easting: 471360 Northing: 170410	Annual Volume (m ³): 181840 Max Daily Volume (m ³): 655 Original Application No: - Original Start Date: 01/01/2002 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 01/01/2002 Version End Date: -
-	1865m S	Status: Historical Licence No: 28/39/22/0525 Details: Laundry Use Direct Source: THAMES GROUNDWATER Point: DARWIN CLOSE, WHITLEY, READING Data Type: Point Name: CLEAN LINEN SERVICES LTD Easting: 471300 Northing: 170400	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: 31/12/2001 Issue No: 101 Version Start Date: 01/04/2000 Version End Date: -
-	1939m NW	Status: Active Licence No: 28/39/23/0128 Details: Process Water Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING POINT A Data Type: Point Name: HILLIER GROUP OF COMPANIES Easting: 470400 Northing: 174100	Annual Volume (m ³): 6,682 Max Daily Volume (m ³): 27.28 Original Application No: - Original Start Date: 22/01/1975 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -



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

5.7 Surface water abstractions

Records within 2000m

8

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 59**

ID	Location	Details	
-	792m N	Status: Historical Licence No: 28/39/22/0594 Details: Lake & Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: THE ORACLE CENTRE, READING Data Type: Point Name: ORACLE SHOPPING CENTRE LTD Easting: 471590 Northing: 173150	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/2000 Expiry Date: - Issue No: 1 Version Start Date: 16/02/2000 Version End Date: -
-	792m N	Status: Active Licence No: 28/39/22/0594 Details: Lake & Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: ST.GILES STREAM AT THE ORACLE CENTRE, READING Data Type: Point Name: ORACLE SHOPPING CENTRE LTD Easting: 471590 Northing: 173150	Annual Volume (m ³): 737,856 Max Daily Volume (m ³): 2,016 Original Application No: - Original Start Date: 16/02/2000 Expiry Date: - Issue No: 2 Version Start Date: 09/03/2020 Version End Date: -
-	1367m SW	Status: Historical Licence No: 28/39/22/0527 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: FOBNEY FISH FARM INTAKES Data Type: Line Name: ENVIRONMENT AGENCY Easting: 470420 Northing: 171140	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 11/08/1993 Version End Date: -



ID	Location	Details	
-	1367m SW	Status: Historical Licence No: 28/39/22/0527 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: KENNET AND AVON CANAL AT FOBNEY FISH FARM INTAKES Data Type: Line Name: ENVIRONMENT AGENCY Easting: 470420 Northing: 171140	Annual Volume (m ³): 2382154 Max Daily Volume (m ³): 12730 Original Application No: - Original Start Date: 11/08/1993 Expiry Date: - Issue No: 100 Version Start Date: 11/08/1993 Version End Date: -
-	1372m SW	Status: Historical Licence No: 28/39/22/0527 Details: Fish Farm/Cress Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: KENNET AND AVON CANAL AT FOBNEY FISH FARM INTAKES Data Type: Line Name: ENVIRONMENT AGENCY Easting: 470460 Northing: 171130	Annual Volume (m ³): - Max Daily Volume (m ³): 5000 Original Application No: - Original Start Date: 11/08/1993 Expiry Date: 31/03/2011 Issue No: 101 Version Start Date: 10/10/2006 Version End Date: -
-	1465m SW	Status: Historical Licence No: 28/39/22/0435 Details: Potable Water Supply - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: FOBNEY WATERWORKS INTAKE Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470300 Northing: 171200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/04/1977 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1977 Version End Date: -
-	1465m SW	Status: Active Licence No: 28/39/22/0435 Details: Potable Water Supply - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: KENNET AND AVON CANAL AT FOBNEY WATERWORKS INTAKE Data Type: Point Name: Thames Water Utilities Ltd Easting: 470300 Northing: 171200	Annual Volume (m ³): 26,621,933 Max Daily Volume (m ³): 72,737.52 Original Application No: - Original Start Date: 05/04/1977 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1977 Version End Date: -



ID	Location	Details	
-	1930m N	Status: Active Licence No: TH/039/0023/022 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER THAMES AT CAVERSHAM WEIR Data Type: Point Name: Reading Hydro CBS Limited Easting: 472072 Northing: 174185	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 19/02/2016 Expiry Date: 31/03/2028 Issue No: 4 Version Start Date: 16/09/2021 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m

23

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 59**

ID	Location	Details	
-	1110m N	Status: Active Licence No: 28/39/23/0042 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CHEAPSIDE, READING, BERKSHIRE Data Type: Point Name: PRIMARK STORES LIMITED Easting: 471200 Northing: 173500	Annual Volume (m ³): 14,933 Max Daily Volume (m ³): 40.91 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	1124m E	Status: Active Licence No: 28/39/22/0521 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: ROYAL BERKSHIRE HOSPITAL Data Type: Point Name: ROYAL BERKSHIRE HOSPITAL Easting: 472400 Northing: 172800	Annual Volume (m ³): 127,750 Max Daily Volume (m ³): 350 Original Application No: - Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 17/01/1992 Version End Date: -



ID	Location	Details	
-	1157m S	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'D' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470970 Northing: 171160	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1157m S	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH D' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470970 Northing: 171160	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1161m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'A' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470850 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1183m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH A' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470840 Northing: 171180	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1195m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'B' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470770 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -



ID	Location	Details	
-	1212m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'C' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470680 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1212m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH C' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470680 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1213m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH B' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470770 Northing: 171180	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1250m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'G' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470610 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1250m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH G' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470610 Northing: 171230	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -



ID	Location	Details	
-	1309m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'H' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470660 Northing: 171130	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1309m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH H' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470660 Northing: 171130	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1412m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'F' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470380 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1412m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH F' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470380 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1465m SW	Status: Historical Licence No: 28/39/22/0435 Details: Potable Water Supply - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: FOBNEY WATERWORKS INTAKE Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470300 Northing: 171200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 05/04/1977 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1977 Version End Date: -



ID	Location	Details	
-	1465m SW	Status: Historical Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION BH 'E' Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 470300 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/06/1998 Version End Date: -
-	1465m SW	Status: Active Licence No: 28/39/22/0435 Details: Potable Water Supply - Direct Direct Source: THAMES SURFACE WATER - NON TIDAL Point: KENNET AND AVON CANAL AT FOBNEY WATERWORKS INTAKE Data Type: Point Name: Thames Water Utilities Ltd Easting: 470300 Northing: 171200	Annual Volume (m ³): 26,621,933 Max Daily Volume (m ³): 72,737.52 Original Application No: - Original Start Date: 05/04/1977 Expiry Date: - Issue No: 100 Version Start Date: 05/04/1977 Version End Date: -
-	1465m SW	Status: Active Licence No: 28/39/22/0132 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: FOBNEY PUMPING STATION 'BH E' Data Type: Point Name: Thames Water Utilities Ltd Easting: 470300 Northing: 171200	Annual Volume (m ³): 1,500,000 Max Daily Volume (m ³): 30,000 Original Application No: - Original Start Date: 05/09/1966 Expiry Date: 31/03/2023 Issue No: 101 Version Start Date: 01/01/2013 Version End Date: -
-	1756m N	Status: Historical Licence No: 28/39/23/0041 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING, BERKSHIRE Data Type: Point Name: COX & WYMAN LTD Easting: 470900 Northing: 174100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/07/1966 Version End Date: -
-	1756m N	Status: Active Licence No: 28/39/23/0167 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: MEADOW ROAD, READING, BERKSHIRE Data Type: Point Name: MANROSE MANUFACTURING LTD Easting: 470900 Northing: 174100	Annual Volume (m ³): 90,920 Max Daily Volume (m ³): 727.40 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -



ID	Location	Details	
-	1814m E	Status: Historical Licence No: 28/39/22/0077 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: WHITEKNIGHTS PARK - READING - BOREHOLE Data Type: Point Name: UNIVERSITY OF READING Easting: 473040 Northing: 171700	Annual Volume (m ³): 240000 Max Daily Volume (m ³): 1032 Original Application No: - Original Start Date: 14/03/1966 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2011 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	0
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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

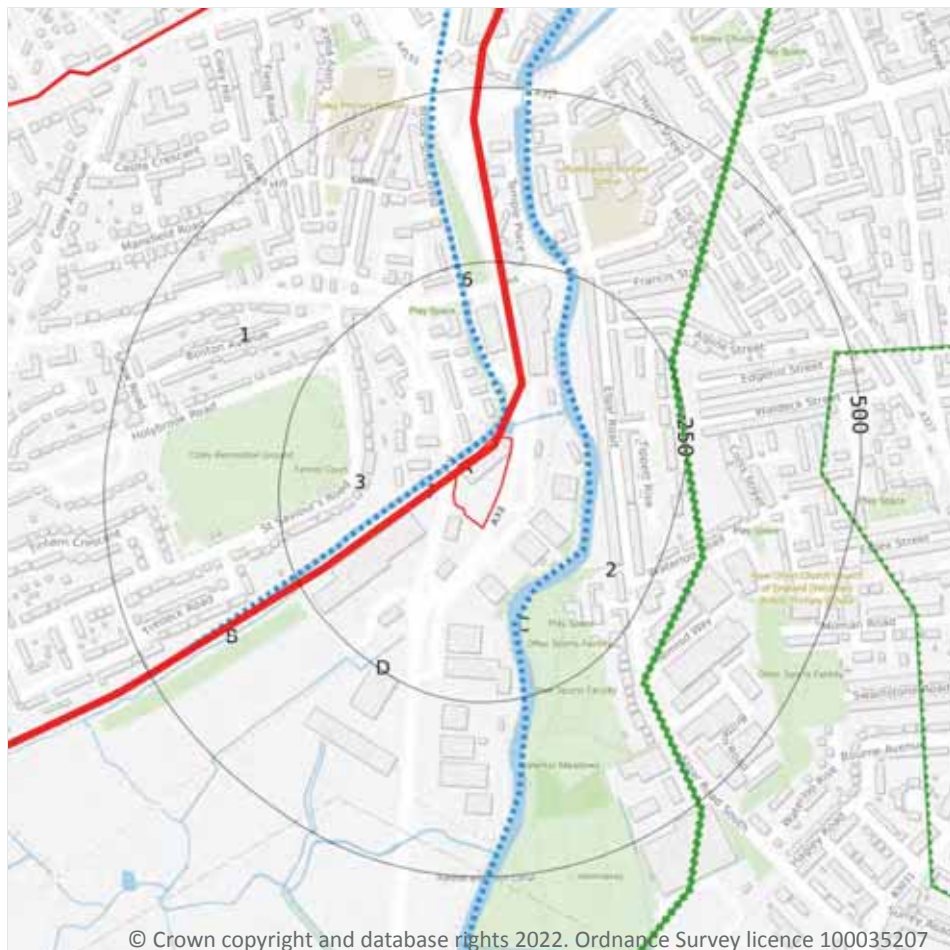
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0
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Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

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

6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

17

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 74**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	7m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook



ID	Location	Type of water feature	Ground level	Permanence	Name
A	7m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook
A	7m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook
A	8m N	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)	Holy Brook
A	20m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	20m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	20m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	22m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook
7	44m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook
B	46m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook
A	47m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	68m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	74m 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
C	93m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Kennet
8	94m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Kennet
D	193m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

7

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 74**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

2

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 74**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Holy Brook	GB106039023141	Kennet	Kennet and Trib
2	On site	River	Lower Kennet (Sheffield Bottom to Reading)	GB106039023140	Kennet	Kennet and Trib

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



6.4 WFD Surface water bodies

Records identified

2

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 74**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
5	8m NW	River	Holy Brook	GB106039023141	Moderate	Fail	Moderate	2019
9	101m E	River	Lower Kennet (Sheffield Bottom to Reading)	GB106039023140	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site

1

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

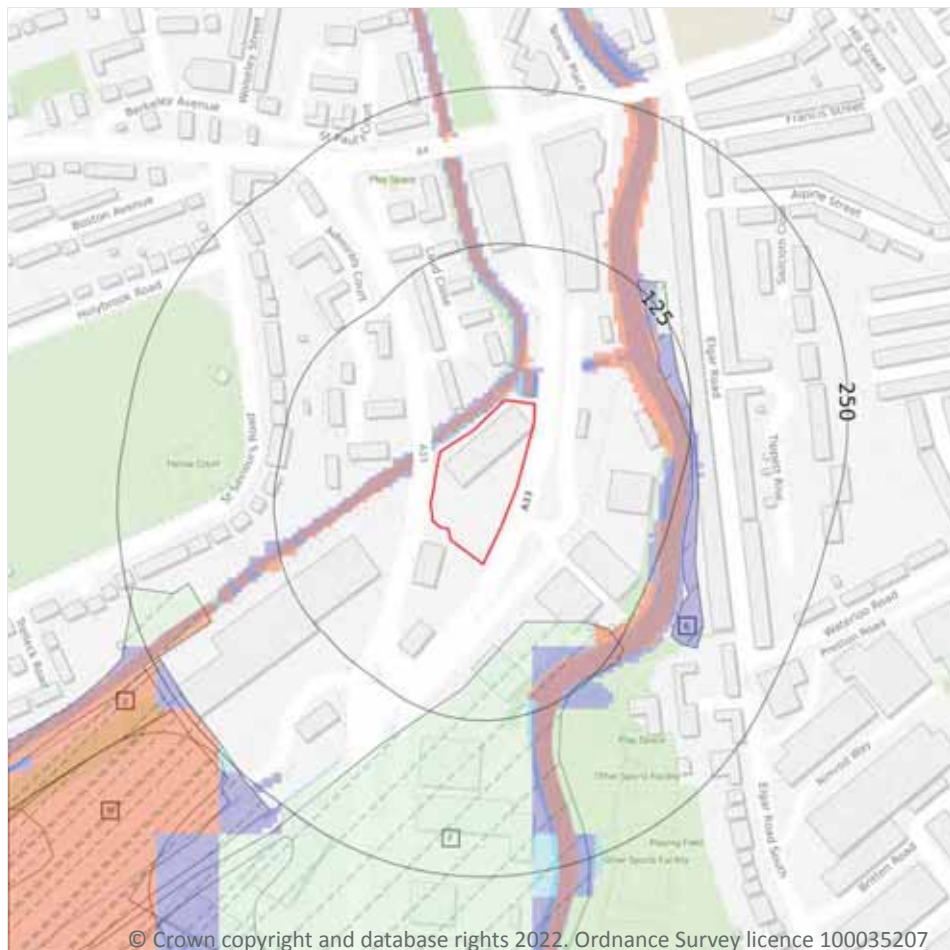
Features are displayed on the Hydrology map on **page 74**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
3	On site	Berkshire Downs Chalk	GB40601G600900	Poor	Poor	Poor	2019

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



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- River and coastal flooding:
- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

17

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

Features are displayed on the River and coastal flooding map on **page 78**



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

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

7.2 Historical Flood Events

Records within 250m	4
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Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

Features are displayed on the River and coastal flooding map on **page 78**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
F	57m SE	06septemberautumn 1992	1992-01-01 1992-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
6	104m E	06januarynewyear20 03	2002-12-23 2003-01-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
J	194m SW	06januarynewyear20 03	2002-12-23 2003-01-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
M	243m SW	06junesummer1971	1971-01-01 1971-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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

7.3 Flood Defences

Records within 250m	0
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Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

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



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

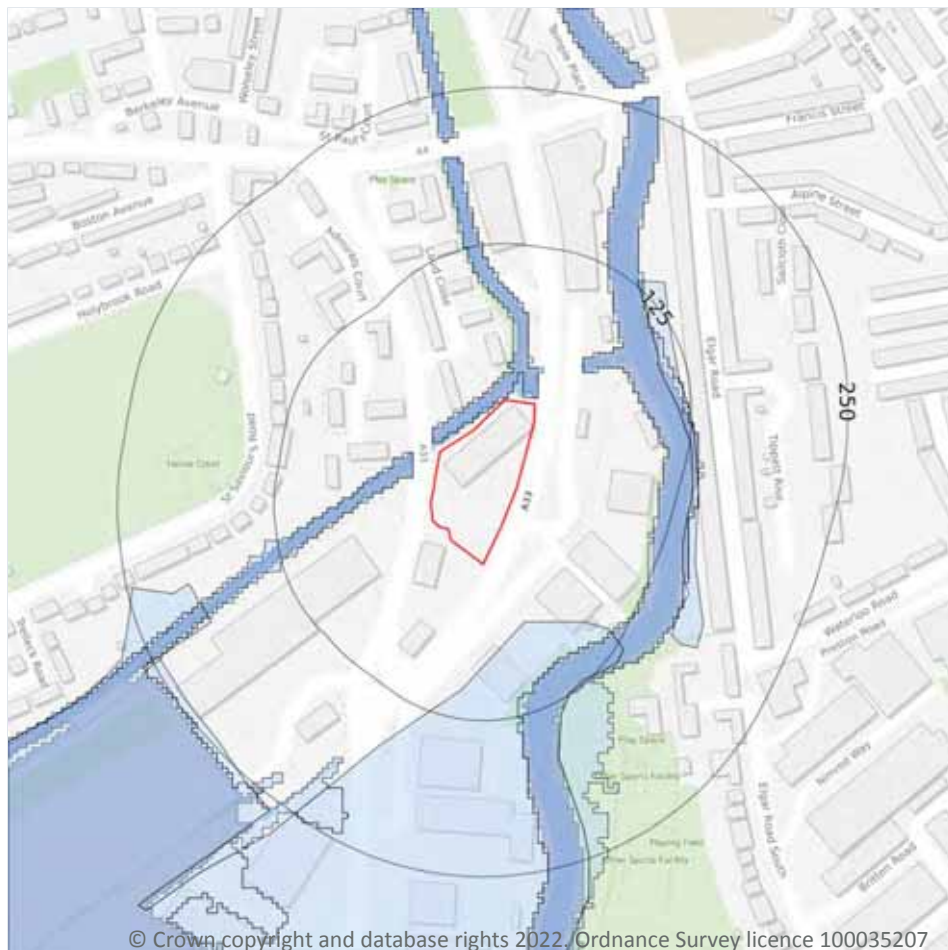
0

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

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



River and coastal flooding - Flood Zones



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

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

Features are displayed on the River and coastal flooding map on **page 78**

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

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



7.7 Flood Zone 3

Records within 50m

1

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

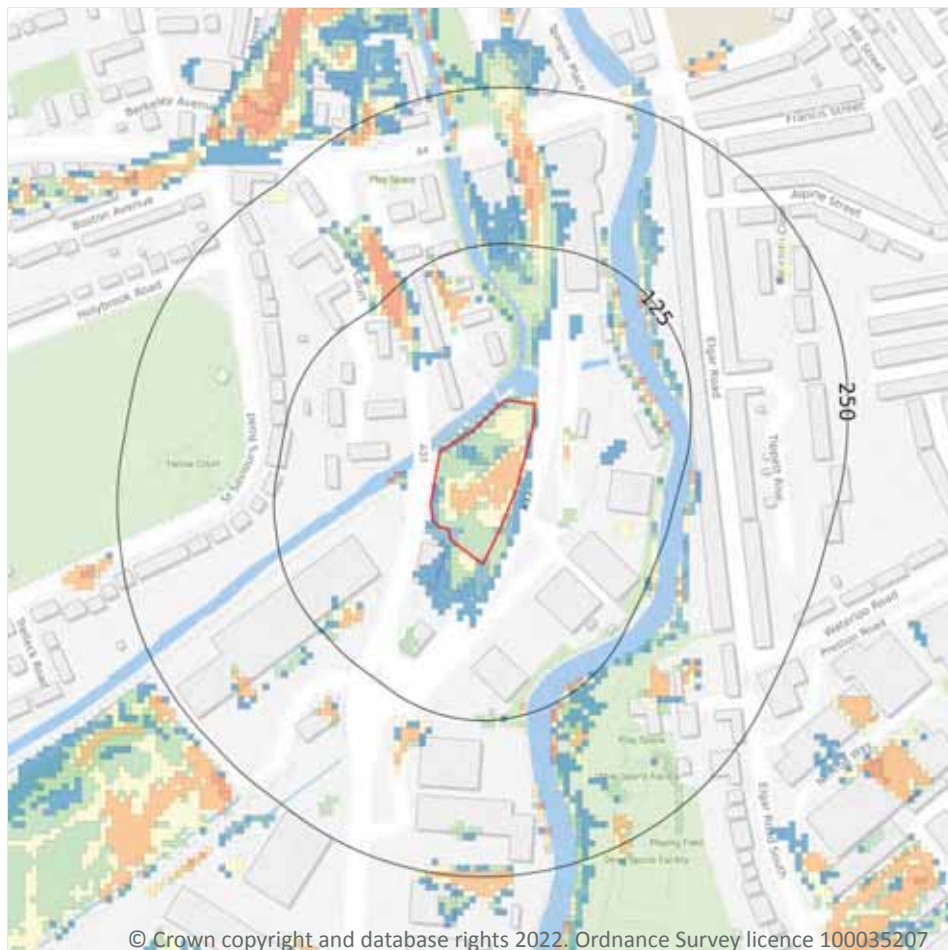
Features are displayed on the River and coastal flooding map on **page 78**

Location	Type
2m N	Zone 3 - (Fluvial Models)

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



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

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

1 in 250 return period

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

1 in 100 return period

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

1 in 30 return period

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

8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.1m - 0.3m

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 83**

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 0.1m and 0.3m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiantal Risk Analytics.

