

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
18	87	NW	Circle Reading Hospital	471255 170488	100, Drake Way, Reading, RG2 0NE	Hospitals	Health Practitioners and Establishments
19E	89	S	E S L Europe	471384 170291	8, Commercial Road, Reading, RG2 0QZ	Colours, Chemicals and Water Softeners and Supplies	Industrial Products
20	90	N	Electricity Sub Station	471390 170508	RG2	Electrical Features	Infrastructure and Facilities
21E	92	S	Works	471385 170289	RG2	Unspecified Works Or Factories	Industrial Features
22	98	SE	Warehouse	471457 170332	RG2	Container and Storage	Transport, Storage and Delivery
23	101	E	Depot	471476 170378	RG2	Container and Storage	Transport, Storage and Delivery
24F	103	E	Works	471484 170406	RG2	Unspecified Works Or Factories	Industrial Features
25	104	SW	Depot	471240 170299	RG2	Container and Storage	Transport, Storage and Delivery
26F	105	E	James White Group Engineering Ltd	471486 170408	Commercial Road, Reading, RG2 0RU	Metalworkers Including Blacksmiths	Construction Services
27	106	S	Factory	471319 170276	RG2	Unspecified Works Or Factories	Industrial Features
28	122	SE	Works	471457 170293	RG2	Unspecified Works Or Factories	Industrial Features
29G	122	S	Sharpsmart	471361 170258	6, Commercial Road, Reading, RG2 0QZ	Medical Waste Disposal Services	Health Support Services
30G	122	S	Europcar	471362 170258	6-8, Commercial Road, Reading, RG2 0QZ	Vehicle Hire and Rental	Hire Services
31G	122	S	Alamo Rent A Car	471362 170258	6-8, Commercial Road, Reading, RG2 0QZ	Vehicle Hire and Rental	Hire Services
32	125	E	Warehouse	471490 170340	RG2	Container and Storage	Transport, Storage and Delivery
33	129	NE	Works	471489 170490	RG2	Unspecified Works Or Factories	Industrial Features
34H	129	SE	Warehouse	471485 170317	RG2	Container and Storage	Transport, Storage and Delivery
35J	130	E	Tank	471511 170403	RG2	Tanks (Generic)	Industrial Features
36H	131	SE	Warehouse	471478 170303	RG2	Container and Storage	Transport, Storage and Delivery
37	132	W	Tank	471172 170369	RG2	Tanks (Generic)	Industrial Features
38I	135	S	Electricity Sub Station	471326 170247	RG2	Electrical Features	Infrastructure and Facilities
39I	136	S	Tank	471334 170246	RG2	Tanks (Generic)	Industrial Features
40K	147	S	Tank	471368 170233	RG2	Tanks (Generic)	Industrial Features
41J	151	E	Tank	471532 170399	RG2	Tanks (Generic)	Industrial Features
42K	155	S	Junk Collectors	471389 170226	7-8, Bennet Road, Reading, RG2 0QX	Recycling, Reclamation and Disposal	Recycling Services

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
43	156	W	Tank	471147 170374	RG2	Tanks (Generic)	Industrial Features
44K	157	S	Tank	471369 170223	RG2	Tanks (Generic)	Industrial Features
45	160	S	HSS Hire Service Group Ltd	471391 170221	Unit 2 7 Bennet Road, Reading, RG2 0QX	Construction and Tool Hire	Hire Services
46	162	S	GAP Group Ltd	471299 170220	11, Bennet Road, Reading, RG2 0QZ	Construction and Tool Hire	Hire Services
47	167	W	Works	471139 170349	RG2	Unspecified Works Or Factories	Industrial Features
48	168	SE	Blade Motorcycles	471451 170232	Unit 1 Prosper Park, Bennet Road, Reading, RG2 0QX	New Vehicles	Motoring
49M	171	S	Meadee Flooring	471250 170219	Unit 5 Attenborough House 15, Bennet Road, Reading, RG2 0QX	Construction Completion Services	Construction Services
50L	173	W	Cooper Reading B M W	471143 170464	Drake Way, Reading, RG2 0GH	New Vehicles	Motoring
51L	173	W	Cooper Mini Reading	471143 170464	Drake Way, Reading, RG2 0GH	New Vehicles	Motoring
52	182	W	Vinyl Graphics Ltd	471121 170387	Unit 1, Smallmead Road, Reading, RG2 0QS	Signs	Industrial Products
53M	182	S	Electricity Sub Station	471236 170213	RG2	Electrical Features	Infrastructure and Facilities
54	190	NW	Electricity Sub Station	471211 170582	RG2	Electrical Features	Infrastructure and Facilities
55	193	S	Pumping Station	471230 170204	RG2	Water Pumping Stations	Industrial Features
56	206	NE	Factory	471558 170526	RG2	Unspecified Works Or Factories	Industrial Features
57	214	NE	Electricity Sub Station	471511 170589	RG2	Electrical Features	Infrastructure and Facilities
58	216	S	Fenn Motor Works	471420 170169	Unit 2 Bennet Court, Bennet Road, Reading, RG2 0QX	Vehicle Repair, Testing and Servicing	Repair and Servicing
59	218	W	Electricity Sub Station	471087 170355	RG2	Electrical Features	Infrastructure and Facilities
60	219	S	Reflex	471445 170173	Unit 1 Bennet Court, Bennet Road, Reading, RG2 0QX	Electronic Equipment	Industrial Products
61	222	SE	Electricity Sub Station	471485 170189	RG2	Electrical Features	Infrastructure and Facilities
62	229	S	Thrifty Car & Van Rental	471286 170153	20-22, Bennet Road, Reading, RG2 0QX	Vehicle Hire and Rental	Hire Services
63	238	S	Renault Trucks South	471378 170142	Bennet Road, Reading, RG2 0QX	Vehicle Repair, Testing and Servicing	Repair and Servicing
64	241	W	Outfall	471069 170441	RG2	Waste Storage, Processing and Disposal	Infrastructure and Facilities
65	243	SE	Tank	471594 170281	RG2	Tanks (Generic)	Industrial Features
66	246	N	iDwarf Ltd	471387 170664	4, Gweal Avenue, Reading, RG2 0FW	Baking and Confectionery	Foodstuffs

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site:

0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

5.2 Superficial Ground and Drift Geology

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

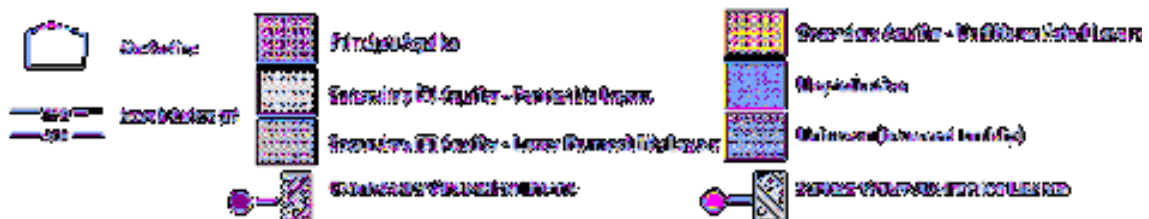
Lex Code	Description	Rock Type
LC-XCZS	LONDON CLAY FORMATION	CLAY, SILT AND SAND
LMBE-XCZS	LAMBETH GROUP	CLAY, SILT AND SAND

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

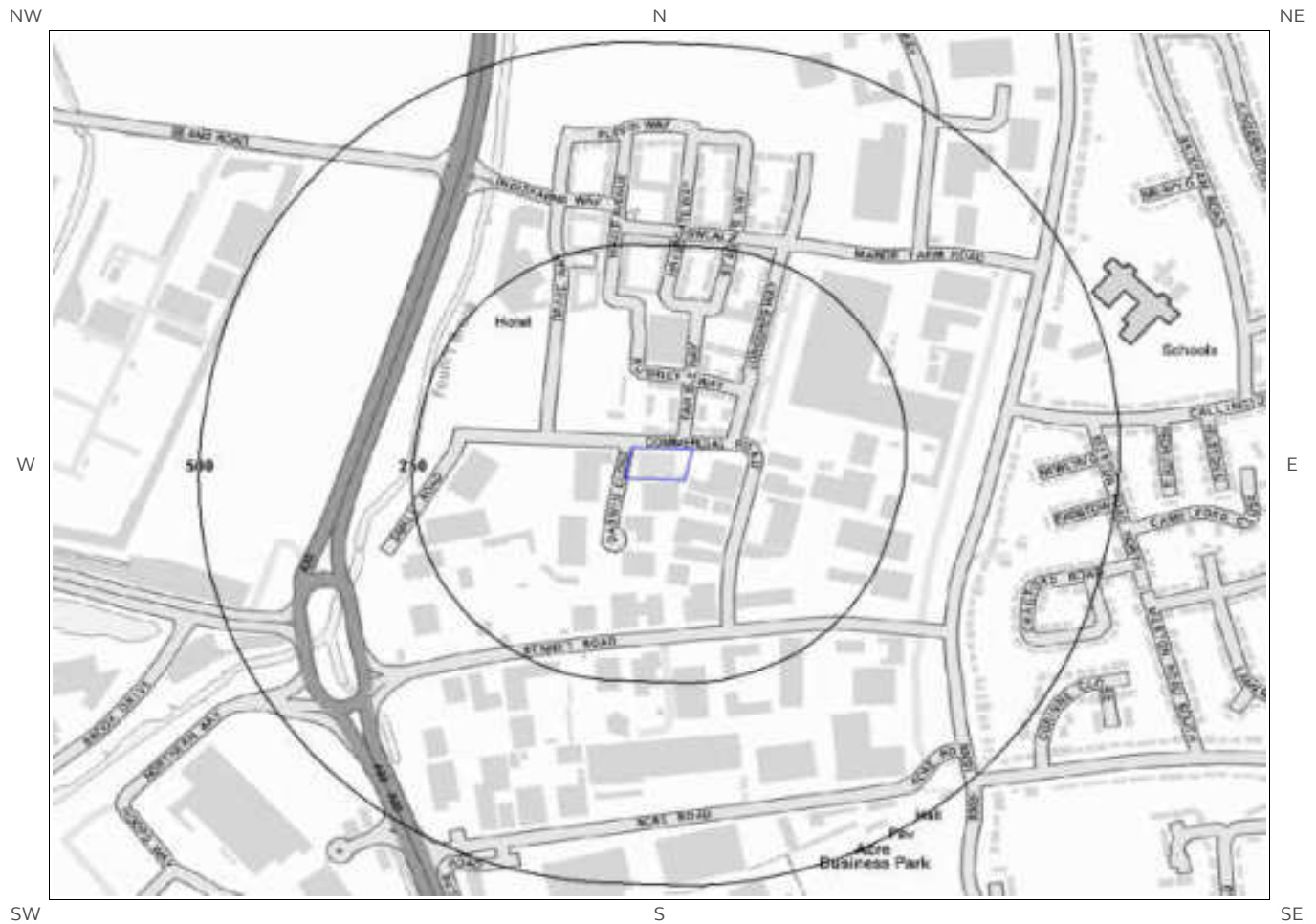
6b. Aquifer Within Bedrock Geology and Abstraction Licenses



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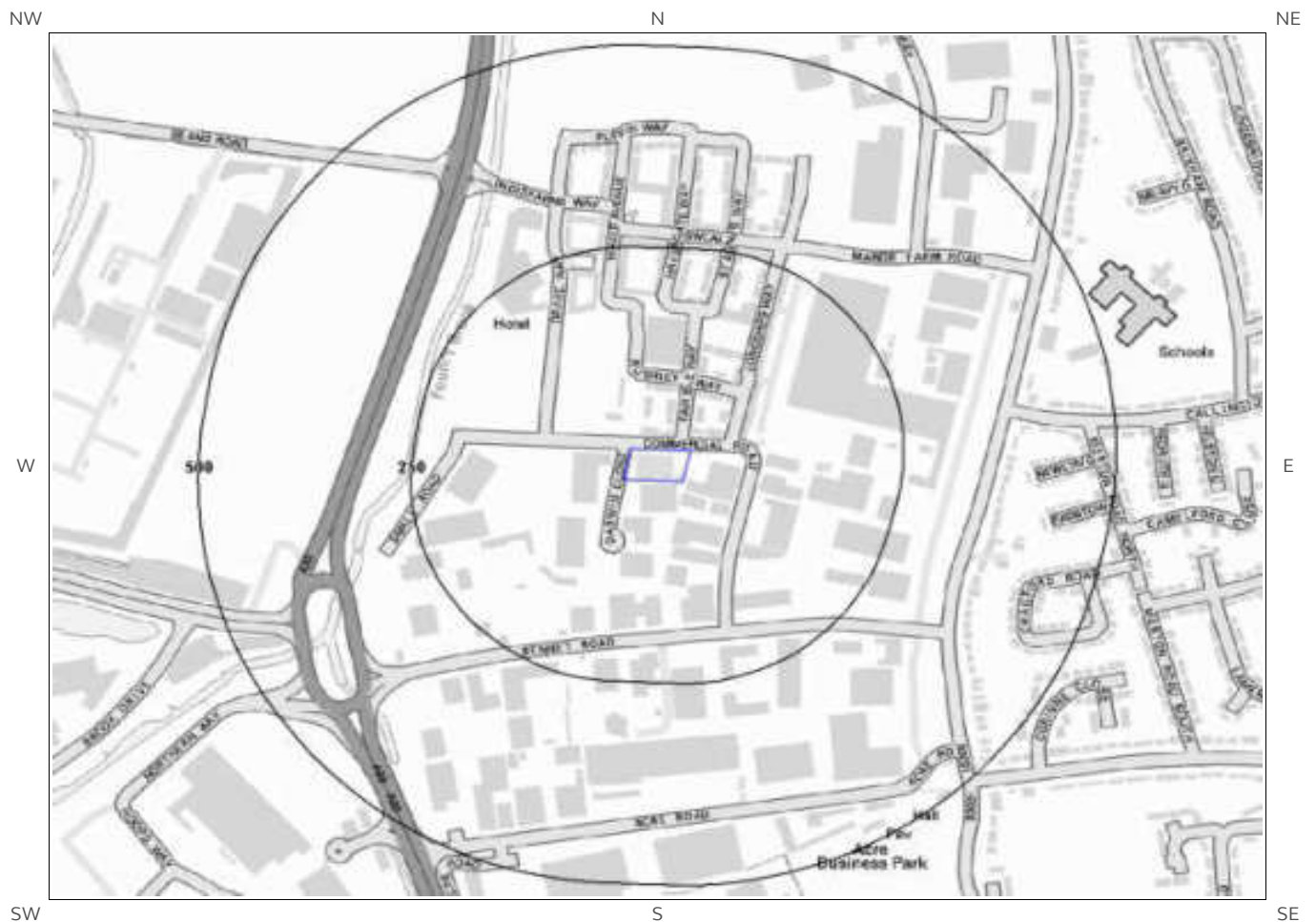
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



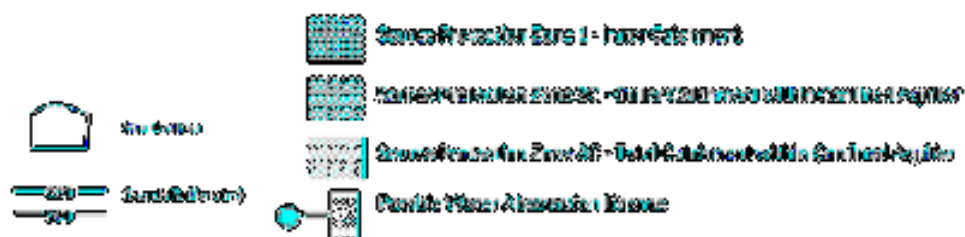
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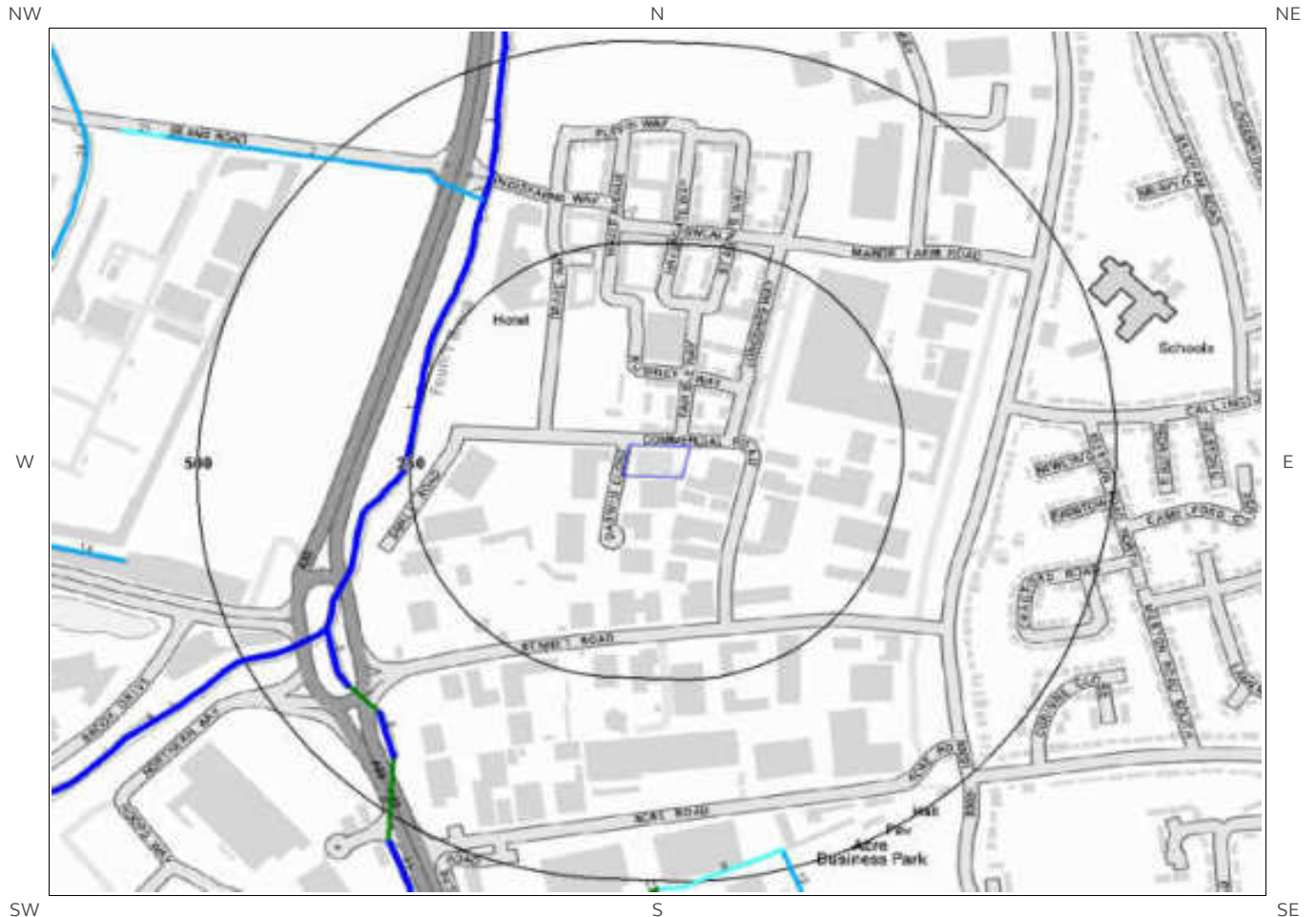
6d. Hydrogeology – Source Protection Zones within confined aquifer



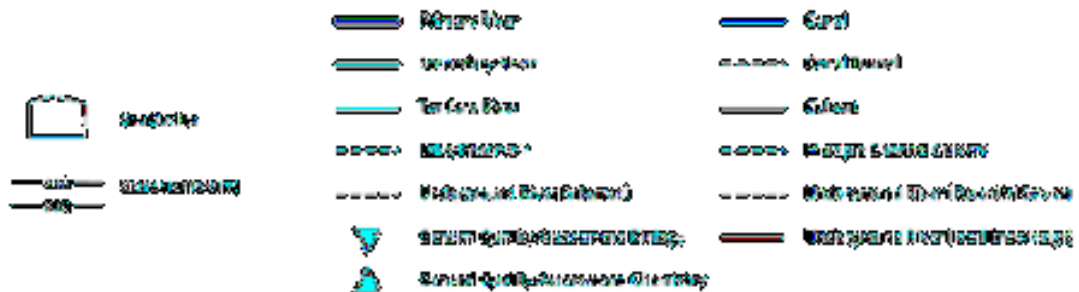
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6e. Hydrology – Detailed River Network and River Quality



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6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	240	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
2	394	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

6.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
3	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
1	34	SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	380	S	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	385	S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

6.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
5	0	On Site	471360 170410	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 Annual Volume (m³): 181840 Max Daily Volume (m³): 655 Original Application No: WRW/A/1085 Original Start Date: 1/1/2002 Expiry Date: 31/3/2017 Issue No: 1 Version Start Date: 1/1/2002 Version End Date:
6	6	W	471300 170400	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 Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: - Expiry Date: 31/12/2001 Issue No: 101 Version Start Date: 1/4/2000 Version End Date:
7A	388	SW	470520 169900	Status: Historical Licence No: 28/39/22/0578 Details: General Use Relating To Secondary Category (Low Loss) Direct Source: Thames Groundwater Point: Madejski Stadium Wellpoints Data Type: Region Name: READING FOOTBALL CLUB PLC Annual Volume (m³): 189734.4 Max Daily Volume (m³): 518.4 Original Application No: WRA/6539 Original Start Date: 8/6/1998 Expiry Date: 30/6/2008 Issue No: 100 Version Start Date: 8/6/1998 Version End Date:
8A	664	SW	470720 170020	Status: Active Licence No: 28/39/22/0644 Details: General Use Relating To Secondary Category (Low Loss) Direct Source: Thames Groundwater Point: Madejski Stadium Complex - 424 Wellpoints Data Type: Region Name: READING FOOTBALL CLUB PLC Annual Volume (m³): 189735 Max Daily Volume (m³): 518.4 Original Application No: WRW/A/1220 Original Start Date: 28/7/2008 Expiry Date: 31/3/2023 Issue No: 1 Version Start Date: 28/7/2008 Version End Date:
Not shown	760	S	471100 169650	Status: Historical Licence No: 28/39/22/0614 Details: Process Water Direct Source: Thames Groundwater Point: Berkshire Brewery - Point 'e' Data Type: Point Name: Heineken UK Ltd Annual Volume (m³): 3000000 Max Daily Volume (m³): 9550 Original Application No: NPS/WR/002635 Original Start Date: 1/1/2002 Expiry Date: 31/12/2011 Issue No: 4 Version Start Date: 23/11/2009 Version End Date:
Not shown	814	NW	470970 171160	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 Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	814	NW	470970 171160	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	893	NW	470840 171180	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	905	NW	470850 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:
Not shown	932	NW	470770 171180	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	948	NW	470770 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:
Not shown	962	NW	470660 171130	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:
Not shown	962	NW	470660 171130	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	1026	NW	470680 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1026	NW	470680 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	1070	NW	470610 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:
Not shown	1070	NW	470610 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	1214	NW	470380 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:
Not shown	1214	NW	470380 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/6/1998 Version End Date:
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: 1/1/2013 Version End Date:
Not shown	1291	SW	470740 169220	Status: Historical Licence No: 28/39/22/0614 Details: Process Water Direct Source: Thames Groundwater Point: Berkshire Brewery Point 'd' Data Type: Point Name: Heineken UK Ltd	Annual Volume (m³): 3000000 Max Daily Volume (m³): 9550 Original Application No: NPS/WR/002635 Original Start Date: 1/1/2002 Expiry Date: 31/12/2011 Issue No: 4 Version Start Date: 23/11/2009 Version End Date:

ID	Distance (m)	Direction	NGR	Details
Not shown	1294	W	470090 169930	Status: Historical Licence No: 28/39/22/0276 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Smallmead Farm, Pingewood Data Type: Point Name: THE PRUDENTIAL ASSUR. COM. LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 9/1/1967 Expiry Date: - Issue No: 101 Version Start Date: 30/7/1999 Version End Date:
Not shown	1327	SW	470700 169200	Status: Historical Licence No: 28/39/22/0556 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Thames Groundwater Point: Berkshire Brewery Point 'd' Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/6342 Original Start Date: - Expiry Date: 31/12/2001 Issue No: 100 Version Start Date: 9/5/2000 Version End Date:
Not shown	1347	S	470890 169100	Status: Historical Licence No: 28/39/22/0614 Details: Process Water Direct Source: Thames Groundwater Point: Berkshire Brewery - Point 'c' Data Type: Point Name: Heineken UK Ltd Annual Volume (m³): 3000000 Max Daily Volume (m³): 9550 Original Application No: NPS/WR/002635 Original Start Date: 1/1/2002 Expiry Date: 31/12/2011 Issue No: 4 Version Start Date: 23/11/2009 Version End Date:
Not shown	1377	S	470800 169100	Status: Historical Licence No: 28/39/22/0556 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Thames Groundwater Point: Berkshire Brewery Point 'c' Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/6342 Original Start Date: - Expiry Date: 31/12/2001 Issue No: 100 Version Start Date: 9/5/2000 Version End Date:
Not shown	1403	S	471130 168990	Status: Historical Licence No: 28/39/22/0614 Details: Process Water Direct Source: Thames Groundwater Point: Berkshire Brewery - Point 'a' Data Type: Point Name: Heineken UK Ltd Annual Volume (m³): 3000000 Max Daily Volume (m³): 9550 Original Application No: NPS/WR/002635 Original Start Date: 1/1/2002 Expiry Date: 31/12/2011 Issue No: 4 Version Start Date: 23/11/2009 Version End Date:
Not shown	1417	W	469900 170180	Status: Active Licence No: 28/39/22/0463 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Pingewood Business Estate, Smallmead Road, Reading Data Type: Point Name: KENNET VALLEY PARK LTD Annual Volume (m³): 6819 Max Daily Volume (m³): 22.73 Original Application No: - Original Start Date: 29/7/1980 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2008 Version End Date:
Not shown	1417	W	469900 170180	Status: Active Licence No: 28/39/22/0463 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Thames Groundwater Point: Pingewood Business Estate, Smallmead Road, Reading Data Type: Point Name: KENNET VALLEY PARK LTD Annual Volume (m³): 6819 Max Daily Volume (m³): 22.73 Original Application No: - Original Start Date: 29/7/1980 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2008 Version End Date:
Not shown	1496	S	471100 168900	Status: Historical Licence No: 28/39/22/0556 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Thames Groundwater Point: Berkshire Brewery Point 'a' Data Type: Point Name: SCOTTISH COURAGE BREWING LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/6342 Original Start Date: - Expiry Date: 31/12/2001 Issue No: 100 Version Start Date: 9/5/2000 Version End Date:

ID	Distance (m)	Direction	NGR	Details
Not shown	1541	S	471320 168840	Status: Historical Licence No: 28/39/22/0601 Details: Make-Up or Top Up Water Direct Source: Thames Groundwater Point: Reading International Business Park Data Type: Point Name: AKELER DEVELOPMENTS LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRW/A/1049 Original Start Date: 10/11/2000 Expiry Date: - Issue No: 1 Version Start Date: 10/11/2000 Version End Date:
Not shown	1790	SW	470300 168900	Status: Historical Licence No: 28/39/22/0166 Details: General Farming & Domestic Direct Source: Thames Groundwater Point: Hartley Court Farm, Three Mile Cross Data Type: Point Name: HEWISON Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/1763/1 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/11/1985 Version End Date:
Not shown	1907	W	469400 170500	Status: Historical Licence No: 28/39/22/0432 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Seb Cottage Lane, Burghfield Data Type: Point Name: SOUTHERN ELECTRICITY BOARD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/1450/38 Original Start Date: 28/7/1976 Expiry Date: - Issue No: 100 Version Start Date: 28/7/1976 Version End Date:

6.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site? Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1004	NW	470420 171140	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 Annual Volume (m³): - Max Daily Volume (m³): - Application No: WRA/5618 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 11/8/1993 Version End Date:
Not shown	1004	NW	470420 171140	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 Annual Volume (m³): 2382154 Max Daily Volume (m³): 12730 Application No: WRA/5618 Original Start Date: 11/8/1993 Expiry Date: - Issue No: 100 Version Start Date: 11/8/1993 Version End Date:
Not shown	1012	NW	470460 171130	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 Annual Volume (m³): 1800000 Max Daily Volume (m³): 5000 Application No: - Original Start Date: 11/8/1993 Expiry Date: 31/3/2011 Issue No: 101 Version Start Date: 10/10/2006 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): - Max Daily Volume (m³): - Application No: S228 Original Start Date: 5/4/1977 Expiry Date: - Issue No: 100 Version Start Date: 5/4/1977 Version End Date:
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): 26621933 Max Daily Volume (m³): 72737.52 Application No: S228 Original Start Date: 5/4/1977 Expiry Date: - Issue No: 100 Version Start Date: 5/4/1977 Version End Date:
Not shown	1412	SW	470200 168600	Status: Active Licence No: 28/39/22/0232 Details: Spray Irrigation - Direct Direct Source: Thames Surface Water - Non Tidal Point: Foudry Brook At Hartley Court Farm Data Type: Line Name: Hewison Farms limited	Annual Volume (m³): 18184 Max Daily Volume (m³): 681.91 Application No: NPS/WR/022694 Original Start Date: 14/11/1966 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2016 Version End Date:
Not shown	1759	SW	469500 168800	Status: Active Licence No: 28/39/22/0232 Details: Spray Irrigation - Direct Direct Source: Thames Surface Water - Non Tidal Point: Burghfield Brook At Hartley Court Farm Data Type: Line Name: Hewison Farms limited	Annual Volume (m³): 18184 Max Daily Volume (m³): 681.91 Application No: NPS/WR/022694 Original Start Date: 14/11/1966 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2016 Version End Date:

6.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distance (m)	Direction	NGR	Details	
Not shown	814	NW	470970 171160	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	814	NW	470970 171160	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	893	NW	470840 171180	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:
Not shown	905	NW	470850 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	932	NW	470770 171180	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:
Not shown	948	NW	470770 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	962	NW	470660 171130	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	962	NW	470660 171130	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:
Not shown	1026	NW	470680 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1026	NW	470680 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1070	NW	470610 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:
Not shown	1070	NW	470610 171230	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1214	NW	470380 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:
Not shown	1214	NW	470380 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): 26621933 Max Daily Volume (m³): 72737.52 Original Application No: S228 Original Start Date: 5/4/1977 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: RG952 Original Start Date: 5/9/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): 1500000 Max Daily Volume (m³): 30000 Original Application No: NPS/WR/008557 Original Start Date: 5/9/1966 Expiry Date: 31/3/2023 Issue No: 101 Version Start Date: Version End Date:
Not shown	1276	NW	470300 171200	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	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: S228 Original Start Date: 5/4/1977 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1417	W	469900 170180	Status: Active Licence No: 28/39/22/0463 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Household Direct Source: Thames Groundwater Point: Pingewood Business Estate, Smallmead Road, Reading Data Type: Point Name: KENNET VALLEY PARK LTD	Annual Volume (m³): 6819 Max Daily Volume (m³): 22.73 Original Application No: - Original Start Date: 29/7/1980 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:
Not shown	1907	W	469400 170500	Status: Historical Licence No: 28/39/22/0432 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Seb Cottage Lane, Burghfield Data Type: Point Name: SOUTHERN ELECTRICITY BOARD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WRA/1450/38 Original Start Date: 28/7/1976 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:

6.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site?

No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site? Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
61	W	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
309	W	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
426	SW	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.

6.9 River Quality

Is there any Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site? Yes

6.9.1 Biological Quality:

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Biological Quality Grade				
					2005	2006	2007	2008	2009
Not shown	771	N	471180 171180	River Name: Foudry Brook Reach: Stratfield Mortimer Stw - Kennet End/Start of Stretch: End of Stretch NGR	B	A	A	A	B
Not shown	771	N	471180 171180	River Name: Kennet Reach: Sulhamstead Stream - Foudry Brook End/Start of Stretch: End of Stretch NGR	A	A	A	A	A

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAH). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
Not shown	771	N	471180 171180	River Name: Kennet Reach: Foudry Brook - Holy Brook End/Start of Stretch: Start of Stretch NGR	B	A	A	A	A
Not shown	771	N	471180 171180	River Name: Kennet Reach: Sulhamstead Stream - Foudry Brook End/Start of Stretch: End of Stretch NGR	A	A	A	A	A
Not shown	1235	NW	470333 171175	River Name: Kennet Reach: Sulhamstead Stream - Foudry Brook End/Start of Stretch: Sample Point NGR	A	A	A	A	A

6.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (6e):

ID	Distance (m)	Direction	Details	
1	252	W	River Name: Foudry Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
2	348	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
3	348	NW	River Name: Foudry Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
4	396	SW	River Name: Foudry Brook Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
5	396	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
6	410	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
7	410	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined

ID	Distance (m)	Direction	Details	
8	442	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
9	475	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10	476	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined

6.11 Surface Water Features

Are there any surface water features within 250m of the study site? Yes

The following surface water records are not represented on mapping:

Distance (m)	Direction
246	W

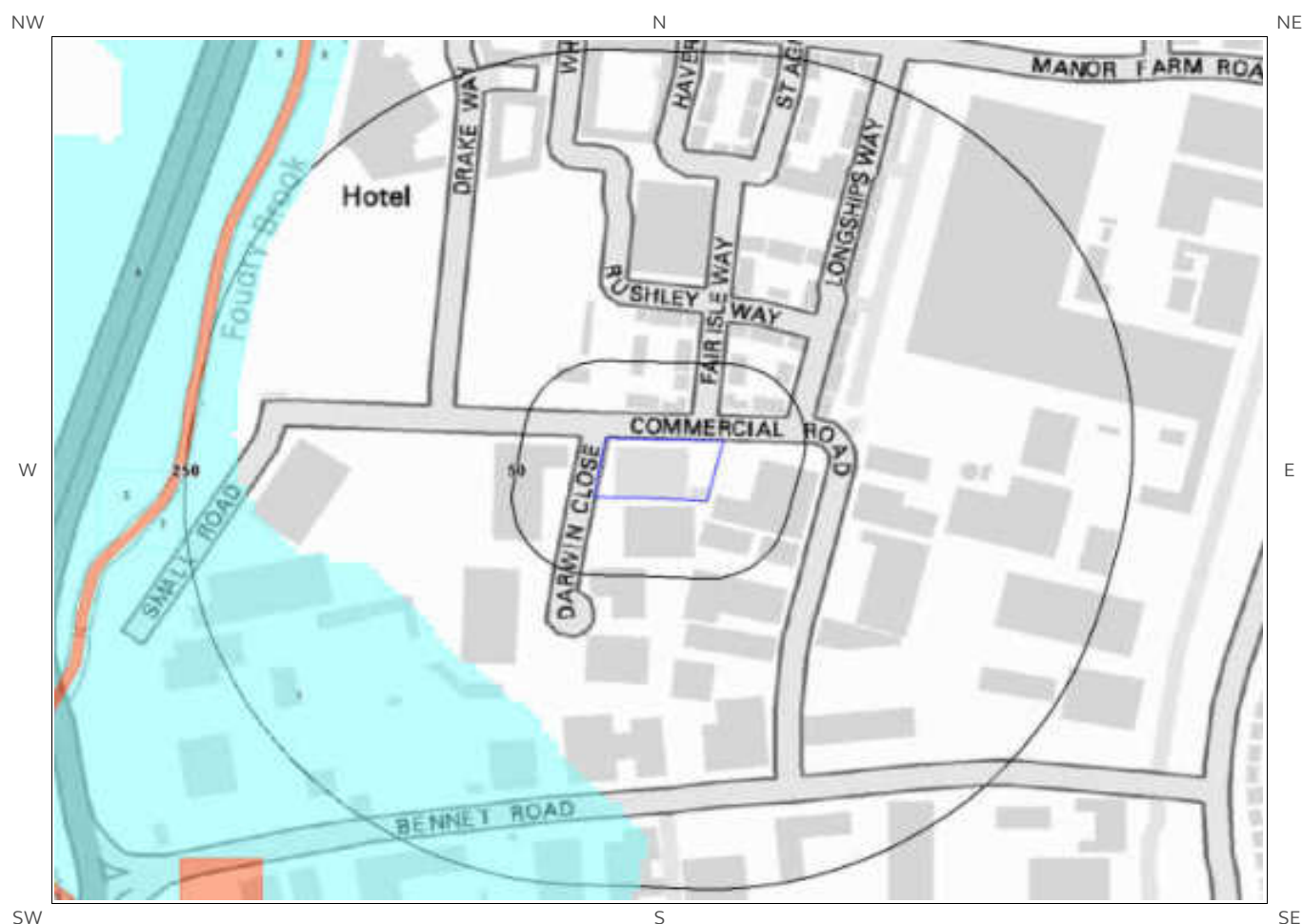
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



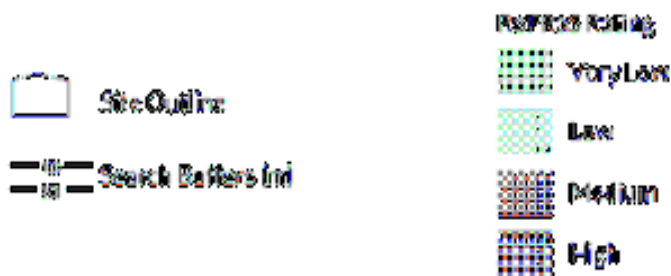
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7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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7 Flooding

7.1 River and Coastal Zone 2 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 2 floodplain? **Yes**

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Type
1	128	SW	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
2C	228	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)
3	228	W	17-Aug-2017	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Is the site within 250m of an Environment Agency/Natural Resources Wales Zone 3 floodplain? **Yes**

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Type
1	239	W	22-Aug-2017	Zone 3 - (Fluvial Models)

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

What is the highest risk of flooding onsite? **Very Low**

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Are there any Flood Defences within 250m of the study site? No
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

7.6 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site? Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding? Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential below Surface

Where potential for groundwater flooding of property situated below ground level is indicated, this means that given the geological conditions there may be a groundwater flooding hazard to basements and other below surface infrastructure. Unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area you need take no further action in relation to groundwater flooding hazard. If there are records of previous incidences of groundwater flooding, then is recommended that other information e.g. rainfall history, property type, and land drainage information in addition to previous records of flooding be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

7.8 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

Moderate

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?

Yes

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

0

Database searched and no data found.

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

2

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
5	1645	SE	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1701	SE	UNKNOWN	Ancient and Semi-Natural Woodland

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

0

Database searched and no data found.

8.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

4

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
1	0	On Site	Existing	DEFRA
2	380	S	Existing	DEFRA
3	1303	W	Existing	DEFRA
4	1358	W	Existing	DEFRA

8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **Groundsure Geo Insight**, available from our **website**. The following information has been found:

9.1.1 Shrink Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site? Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

9.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site? Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site? Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Very low potential for compressible deposits to be present. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

What is the maximum Running Sand** hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

* This indicates an automatically generated 50m buffer and site.

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing

ones as described in publication BR211 by the Building Research Establishment?

No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

10.2 Non-Coal Mining

Are there any Non-Coal Mining areas within 50m of the study site boundary? Yes

The following non-coal mining information is provided by the BGS:

Distance (m)	Direction	Name	Commodity	Assessment of likelihood
0.0	On Site	Not available	Chalk	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered

Past underground mine workings are unlikely. The rock types present in these areas are such that mineral veins may be present on which it is possible that mining has been undertaken and/or it is possible that small scale underground extraction of other materials may have occurred. All such occurrences are likely to be of localised extent and infrequent. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset. However, if in a coalfield area you should still consider a Coal Authority mining search for the area of interest.

10.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No

Guidance: No Guidance Required.

Contact Details

emapsite
Telephone: 0118 9736883
sales@emapsite.com



British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:

Web: www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk



Environment Agency

National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 03708 506 506

Web: www.environment-agency.gov.uk

Email: enquiries@environment-agency.gov.uk



Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe

Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



The Coal Authority

200 Lichfield Lane
Mansfield
Notts NG18 4RG
Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk



Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505



Local Authority

Authority: Reading Borough Council
Phone: 0118 937 3787
Web: <http://beta.reading.gov.uk/>
Address: Civic Offices, Bridge Street, Reading, RG1 2LU

Gemapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444



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<https://www.groundsure.com/terms-and-conditions-sept-2016>

Geo Insight

Address: Darwin Close, Reading,
Date: 21 Sep 2017
Reference: EMS-441100_590937
Client: emapsite



Aerial Photograph Capture date: 11-Jul-2013
Grid Reference: 471342,170401
Site Size: 0.27ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Geology 1:10,000 Scale

1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	Yes
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	No
	1.2.2 Are there any records of landslip within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and Faults	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of faults within 500m of the study site boundary at 1:10,000 scale?	No

Section 2: Geology 1:50,000 Scale

2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	Yes
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	Yes
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	No
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	No
	2.2.3 Are there any records of landslip within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and Faults

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

2.3.2 Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

2.3.3 Are there any records of faults within 500m of the study site boundary?

No

Section 3: Radon

3. Radon

3.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

3.2 Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings

	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	8	0	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	0	0	0	0	5

Section 5: Mining, Extraction & Natural Cavities

	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	0	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	1	0	0	1	4
5.4 Non-Coal Mining*	1	0	0	1	0
5.5 Non-Coal Mining Cavities	0	0	0	0	2
5.5 Natural Cavities	0	0	0	0	0

Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Moderate				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Negligible				
6.4 Compressible Deposits	Very Low				
6.5 Collapsible Deposits	Very Low				
6.5 Running Sand	Very Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	0	1	11		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	1	1	0		
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	0	0	2	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

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Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	Some deposits are mapped	Full	Full	No coverage
2	380.0	Some deposits are mapped	Full	Full	No coverage
3	1303.0	Some deposits are mapped	Full	Full	No coverage
4	1358.0	Some deposits are mapped	Full	Full	No coverage

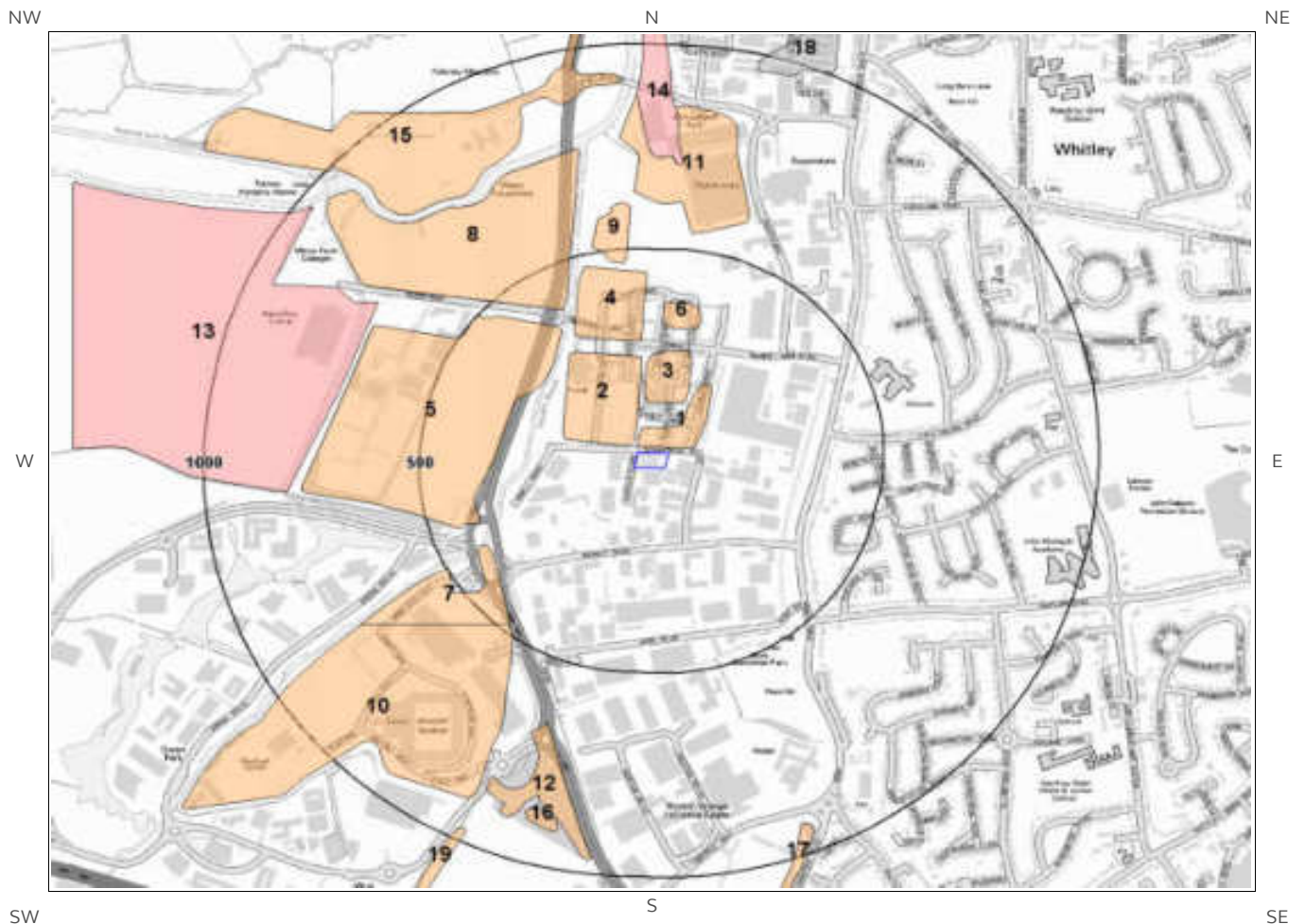
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

1 Geology (1:10,000 scale).

1.1 Artificial Ground Map (1:10,000 scale)



Artificial Ground Legend

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