

## **13 Habitat designations**



## **13.1 Priority Habitat Inventory**

#### Records within 250m

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

Features are displayed on the Habitat designations map on page 126 >

ID	Location	Main Habitat	Other habitats
1	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
2	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)





ID	Location	Main Habitat	Other habitats
3	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
4	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
5	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
6	On site	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
7	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)
11	20m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)
12	20m SE	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
13	41m SE	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
14	53m SE	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
15	75m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)
16	81m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)
17	84m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)
18	84m S	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
19	93m S	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
20	106m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)
21	127m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
22	131m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%); Additional: TORCH (FEP 50%)
23	134m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
25	137m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)







ID	Location	Main Habitat	Other habitats
26	137m SW	No main habitat but additional habitats present	Additional: TORCH (FEP 50%)
А	144m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
27	150m S	Lowland meadows	Overruled by manual validation checks
А	154m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
28	158m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
29	161m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
30	173m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
С	179m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
31	182m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%); Additional: TORCH (FEP 50%)
В	183m SW	Lowland meadows	Main habitat: CFPGM (INV > 50%); LMEAD (INV > 50%, FEP + HLS); Additional: RBEDS (FEP 50%)
D	190m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%); LMEAD (INV > 50%)
D	192m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%); LMEAD (INV > 50%, FEP + HLS); Additional: RBEDS (FEP 50%)
С	192m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
32	202m SW	Coastal and floodplain grazing marsh	Main habitat: CFPGM (INV > 50%)
33	210m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
34	211m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
35	229m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
37	243m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
38	248m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%, ENSIS L1)

This data is sourced from Natural England.







#### 13.2 Habitat Networks

#### **Records within 250m**

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

Features are displayed on the Habitat designations map on page 126 >

ID	Location	Туре	Habitat
10	On site	Network Enhancement Zone 1	Not specified
24	135m S	Habitat Restoration-Creation	Not specified
В	156m SW	Primary Habitat	Lowland meadows
36	242m E	Network Enhancement Zone 1	Not specified

This data is sourced from Natural England.

### 13.3 Open Mosaic Habitat

#### Records within 250m

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

This data is sourced from Natural England.

### **13.4 Limestone Pavement Orders**

#### **Records within 250m**

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

This data is sourced from Natural England.





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## 14 Geology 1:10,000 scale - Availability



### 14.1 10k Availability

#### Records within 500m

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

Features are displayed on the Geology 1:10,000 scale - Availability map on page 130 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SP40NE
2	On site	No coverage	No coverage	No coverage	No coverage	NoCov

This data is sourced from the British Geological Survey.







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



## 14.2 Artificial and made ground (10k)

#### Records within 500m

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

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on page 131 >

ID	Location	LEX Code	Description	Rock description
1	451m NE	WGR-VOID	Worked Ground (Undivided)	Void

This data is sourced from the British Geological Survey.







## Geology 1:10,000 scale - Superficial



## 14.3 Superficial geology (10k)

#### Records within 500m

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on page 132 >

ID	Location	LEX Code	Description	Rock description
1	On site	ALV-CZ	Alluvium - Silty Clay	Clay, Silty
3	447m NE	SURA-XSV	Summertown-radley Sand And Gravel Member - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.







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### 14.4 Landslip (10k)

Records within 500m

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on page 132 >

ID	Location	LEX Code	Description	Rock description
2	On site	SLIP-UKNOWN	Landslide Deposits	Unknown/unclassified Entry







Ref: GS-VXZ-ISE-8WE-3DP Your ref: PO24-0667 Grid ref: 444611 209162

## Geology 1:10,000 scale - Bedrock



## 14.5 Bedrock geology (10k)

#### Records within 500m

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on page 134 >

ID	Location	LEX Code	Description	Rock age
1	On site	OXWW- MDST	Oxford Clay Formation And West Walton Formation (undifferentiated) - Mudstone	Oxfordian Age - Callovian Age
2	117m S	TECY-SDST	Temple Cowley Member - Sandstone	Oxfordian Age
3	172m SE	TECY-SDST	Temple Cowley Member - Sandstone	Oxfordian Age







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ID	Location	LEX Code	Description	Rock age
4	310m SE	KTON-STMD	Kingston Formation - Sandstone And Mudstone	Oxfordian Age
5	459m E	STFD-LMST	Stanford Formation - Limestone	Oxfordian Age

This data is sourced from the British Geological Survey.

## 14.6 Bedrock faults and other linear features (10k)

#### **Records within 500m**

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







## 15 Geology 1:50,000 scale - Availability



### 15.1 50k Availability

#### Records within 500m

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

Features are displayed on the Geology 1:50,000 scale - Availability map on page 136 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW236_witney_v4

This data is sourced from the British Geological Survey.







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



### 15.2 Artificial and made ground (50k)

#### **Records within 500m**

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability. Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on page 137 >

ID	Location	LEX Code	Description	Rock description
1	440m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	454m N	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
3	491m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.







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## 15.3 Artificial ground permeability (50k)

#### **Records within 50m**

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







## Geology 1:50,000 scale - Superficial



## 15.4 Superficial geology (50k)

#### Records within 500m

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on page 139 >

ID	Location	LEX Code	Description	Rock description
1	On site	SURAL-XSV	SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER, LOWER FACET	SAND AND GRAVEL
2	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	30m S	NO-XSV	NORTHMOOR SAND AND GRAVEL MEMBER	SAND AND GRAVEL







ID	Location	LEX Code	Description	Rock description
5	356m NW	NO-XSV	NORTHMOOR SAND AND GRAVEL MEMBER	SAND AND GRAVEL
6	400m N	SURA-XSV	SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER	SAND AND GRAVEL
7	409m NW	SURAU-XSV	SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER, UPPER FACET	SAND AND GRAVEL
8	481m NW	SURAU-XSV	SUMMERTOWN-RADLEY SAND AND GRAVEL MEMBER, UPPER FACET	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

## 15.5 Superficial permeability (50k)

Records within 50	Dm		6	
A qualitative classifi through the unsatur table).	cation of estimated rates rated zone of any superfice	of vertical movement of water fro cial deposits (the zone between th	om the ground surface ne land surface and the water	
Location	Flow type	Maximum permeability	Minimum permeability	
On site	Intergranular	High	Very Low	
On site	Intergranular	High	Very Low	
On site	Intergranular	Very High	High	
On site	Intergranular	Very High	High	
7m NW	Intergranular	High	Very Low	
30m S	Intergranular	Verv High	High	

This data is sourced from the British Geological Survey.

### 15.6 Landslip (50k)

Records within 500m	1

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on page 139 >

ID	Location	LEX Code	Description	Rock description	
3	On site	SLIP-UKNOWN	LANDSLIDE DEPOSITS	UNKNOWN/UNCLASSIFIED ENTRY	
	)		Contact us with any questions at: nfo@groundsure.com ス り1273 257 755	Date: 12 August 2024	(140



This data is sourced from the British Geological Survey.

## **15.7 Landslip permeability (50k)**

## Records within 50m 2

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

Flow type	Maximum permeability	Minimum permeability
Mixed	Very High	Low
Mixed	Very High	Low







Ref: GS-VXZ-ISE-8WE-3DP Your ref: PO24-0667 Grid ref: 444611 209162

## Geology 1:50,000 scale - Bedrock



## 15.8 Bedrock geology (50k)

#### Records within 500m

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 142 >

ID	Location	LEX Code	Description	Rock age
1	On site	OXWW- MDST	OXFORD CLAY FORMATION AND WEST WALTON FORMATION (UNDIFFERENTIATED) - MUDSTONE	CALLOVIAN
2	87m NW	KLS-SDSL	KELLAWAYS SAND MEMBER - SANDSTONE AND SILTSTONE, INTERBEDDED	CALLOVIAN







ID	Location	LEX Code	Description	Rock age
3	115m S	HYB-SDSM	HAZELBURY BRYAN FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE	OXFORDIAN
4	151m SE	HYB-SDSM	HAZELBURY BRYAN FORMATION - SANDSTONE, SILTSTONE AND MUDSTONE	OXFORDIAN
5	173m NW	KLC-MDST	KELLAWAYS CLAY MEMBER - MUDSTONE	CALLOVIAN
6	302m SE	KTON-SDST	KINGSTON FORMATION - SANDSTONE	OXFORDIAN
7	436m SE	STFD-LMST	STANFORD FORMATION - LIMESTONE	OXFORDIAN

This data is sourced from the British Geological Survey.

## 15.9 Bedrock permeability (50k)

Records within 50m 3													3									
																	-					

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Low	Very Low
On site	Fracture	Low	Very Low
On site	Fracture	Low	Very Low

This data is sourced from the British Geological Survey.

## 15.10 Bedrock faults and other linear features (50k)

Records within 500m										
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Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.







## **16 Boreholes**



### **16.1 BGS Boreholes**

#### Records within 250m

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

Features are displayed on the Boreholes map on page 144 >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	444580 209260	E12	-	Y	N/A
2	On site	444690 209060	E10	-	Y	N/A







ID	Location	Grid reference	Name	Length	Confidential	Web link
3	On site	444220 209840	E16	-	Y	N/A
4	On site	444775 209415	E22	-	Y	N/A
5	On site	444510 209840	E1	-	Y	N/A
6	On site	444740 209210	E11	-	Y	N/A
7	On site	444575 209725	E21	-	Y	N/A
8	On site	444490 209100	E9	-	Y	N/A
9	On site	444435 209650	E2/89	-	Y	N/A
10	On site	444410 209210	E20	-	Y	N/A
Α	On site	444420 209940	E2	-	Y	N/A
Α	On site	444420 209940	EG1	-	Y	N/A
В	On site	444640 209560	E6	-	Y	N/A
С	On site	444830 209135	E23	-	Y	N/A
В	On site	444660 209560	EG3	-	Υ	N/A
11	2m W	443940 209000	HOWARD TENENS SITE OXFORD ROAD EYNSHAM 3	8.0	Ν	<u>15947227</u> 7
С	3m E	444840 209140	EG4	-	Υ	N/A
12	4m NW	443890 209630	EGARDEN	-	Υ	N/A
D	5m NW	444090 209750	EG8	-	Y	N/A
D	7m NW	444110 209760	E17	-	Υ	N/A
13	16m NW	443546 210263	A40 WITNEY - CASSINGTON DUALLING OXFORDSHIRE 15	12.0	Ν	<u>19511373</u> 7
14	22m NW	443588 210251	A40 WITNEY - CASSINGTON DUALLING OXFORDSHIRE 16	11.5	Ν	<u>19511374</u> 7
15	26m W	444170 209190	E18	-	Υ	N/A
16	34m W	443870 209300	E24	-	Υ	N/A
17	47m NW	443617 210265	A40 WITNEY - CASSINGTON DUALLING OXFORDSHIRE 17	7.0	Ν	<u>19511375</u> 7
18	48m W	444130 209020	HOWARD TENENS SITE OXFORD ROAD EYNSHAM 2	8.0	Ν	15947226 刁
19	54m S	444450 207955	Beacon Hill New Reservoir TP26	-	Y	N/A
20	58m N	444380 210030	E1/98	-	Υ	N/A







ID	Location	Grid reference	Name	Length	Confidential	Web link
21	67m W	444340 209080	E8	-	Y	N/A
22	68m S	444479 208026	Beacon Hill New Reservoir TP27	-	Υ	N/A
23	69m NW	443477 210334	A40 WITNEY - CASSINGTON DUALLING OXFORDSHIRE 14	8.0	Ν	<u>19530557</u> 7
Е	80m S	444997 208059	Beacon Hill New Reservoir CP10	-	Υ	N/A
24	87m W	444290 209040	HOWARD TENENS SITE OXFORD ROAD EYNSHAM 1	8.0	Ν	<u>15947225</u> 7
F	87m S	444967 208062	Beacon Hill New Reservoir TP35	-	Υ	N/A
Е	88m S	445001 208051	Beacon Hill New Reservoir TP33	-	Υ	N/A
25	96m NW	444400 209520	E13	-1.0	Ν	<u>15608409</u> 7
26	97m S	444560 208900	EG5	-	Y	N/A
27	97m NW	443400 210277	A40 WITNEY - CASSINGTON DUALLING OXFORDSHIRE TPN	3.0	Ν	<u>19511396</u> 刁
28	99m N	444725 209650	E3	-	Y	N/A
Е	101m S	445013 208038	Beacon Hill New Reservoir RH10	-	Y	N/A
Е	105m S	444999 208034	Beacon Hill New Reservoir TP34	-	Y	N/A
F	110m S	444955 208042	Beacon Hill New Reservoir RH6	-	Υ	N/A
F	114m S	444934 208051	Beacon Hill New Reservoir RH9	-	Υ	N/A
F	118m S	444939 208043	Beacon Hill New Reservoir CP11	-	Υ	N/A
29	119m SW	444000 208880	EG6	-	Υ	N/A
F	131m S	444932 208031	Beacon Hill New Reservoir TP36	-	Υ	N/A
G	131m S	444966 208014	Beacon Hill New Reservoir CP15A	-	Υ	N/A
G	132m S	444965 208014	Beacon Hill New Reservoir CP15B	-	Υ	N/A
G	133m S	444968 208012	Beacon Hill New Reservoir RH7	-	Υ	N/A
30	139m S	444897 208048	Beacon Hill New Reservoir TP37	-	Υ	N/A
31	144m NW	444290 209380	EYNSHAM WHARF EYNSHAM	6.3	Ν	<u>330044</u> 7
F	144m S	444935 208014	Beacon Hill New Reservoir CP12	-	Υ	N/A
Н	145m S	444990 207995	Beacon Hill New Reservoir TP32	-	Υ	N/A
F	146m S	444937 208011	Beacon Hill New Reservoir OP1	-	Υ	N/A







ID	Location	Grid reference	Name	Length	Confidential	Web link
F	147m S	444926 208016	Beacon Hill New Reservoir RH11	-	Y	N/A
Н	148m S	444991 207992	Beacon Hill New Reservoir CP09	-	Υ	N/A
F	149m S	444928 208013	Beacon Hill New Reservoir CP14B	-	Υ	N/A
F	149m S	444927 208013	Beacon Hill New Reservoir CP14A	-	Υ	N/A
F	154m S	444941 208000	Beacon Hill New Reservoir TP31	-	Υ	N/A
32	160m NW	444250 209400	E15	-1.0	Ν	<u>15608410</u> 刁
33	168m N	444575 210075	EOO/98	-	Υ	N/A
I	183m W	444120 209360	E19	-	Υ	N/A
J	183m S	444970 207960	BEACON HILL OXON 4	-	Υ	N/A
34	183m NW	444120 209560	E4	-	Υ	N/A
35	183m NW	444110 210010	EYNSHAM OXON	4.57	Ν	<u>330918</u> 7
I	197m W	444110 209370	EG7	-	Υ	N/A
J	200m S	444985 207940	Beacon Hill New Reservoir TP28	-	Υ	N/A
К	202m S	444926 207954	Beacon Hill New Reservoir RH8	-	Υ	N/A
К	202m S	444930 207952	Beacon Hill New Reservoir TP29	-	Υ	N/A
J	212m S	444963 207931	Beacon Hill New Reservoir CP13	-	Υ	N/A
36	218m S	444875 207965	Beacon Hill New Reservoir TP30	-	Υ	N/A
37	231m S	445000 207908	Beacon Hill New Reservoir TP13	-	Υ	N/A
L	232m S	444930 207920	BEACON HILL OXON 3	-	Υ	N/A
38	235m NW	443909 210236	A40 WITNEY - CASSINGTON DUALLING OXFORDSHIRE TPP	2.1	Ν	<u>19511397</u> 7
39	235m S	444655 208024	Beacon Hill New Reservoir TP23	-	Υ	N/A
40	241m S	444769 208022	Beacon Hill New Reservoir TP22	-	Υ	N/A
L	249m S	444911 207909	Beacon Hill New Reservoir TP9	-	Υ	N/A
41	249m S	445026 207890	Beacon Hill New Reservoir CP08	_	Y	N/A







## 17 Natural ground subsidence - Shrink swell clays



#### **17.1 Shrink swell clays**

#### **Records within 50m**

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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on page 148 >

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
On site	Moderate	Ground conditions predominantly high plasticity.

This data is sourced from the British Geological Survey.







## Natural ground subsidence - Running sands



### 17.2 Running sands

#### Records within 50m

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

Features are displayed on the Natural ground subsidence - Running sands map on page 149 >

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







Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
On site	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
7m NW	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.
30m S	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.







## Natural ground subsidence - Compressible deposits



### **17.3 Compressible deposits**

#### **Records within 50m**

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

Features are displayed on the Natural ground subsidence - Compressible deposits map on page 151 >

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







Location	Hazard rating	Details
7m NW	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.







## Natural ground subsidence - Collapsible deposits



### **17.4 Collapsible deposits**

#### **Records within 50m**

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

Features are displayed on the Natural ground subsidence - Collapsible deposits map on page 153 >

Location	Hazard rating	Details
On site	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
7m NW	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.







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## Natural ground subsidence - Landslides



### **17.5 Landslides**

#### **Records within 50m**

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

Features are displayed on the Natural ground subsidence - Landslides map on page 155 >

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







Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
On site	Moderate	Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.
8m S	High	Slope instability problems almost certainly present and may be active. Significant constraint on land use.
25m S	Moderate	Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.







## Natural ground subsidence - Ground dissolution of soluble rocks



### **17.6 Ground dissolution of soluble rocks**

#### **Records within 50m**

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 157** >

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.







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## **18 Mining and ground workings**



#### 18.1 BritPits

#### **Records within 500m**

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

Features are displayed on the Mining and ground workings map on page 159 >







ID	Location	Details	Description
I	145m NW	Name: Eynsham Road Gravel Pit Address: CASSINGTON, Oxfordshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
S	475m N	Name: Eynsham Road Gravel Pit Address: CASSINGTON, Oxfordshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

## 18.2 Surface ground workings

Records within 250m	46
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Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

#### Features are displayed on the Mining and ground workings map on page 159 >

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Sewage Works	1972	1:10000
2	On site	Pond	1876	1:10560
Α	On site	Pond	1956	1:10560
Α	On site	Pond	1972	1:10000
Α	On site	Pond	1922	1:10560
Α	On site	Pond	1988	1:10000
Α	On site	Pond	1914	1:10560
В	3m S	Sludge Beds	1972	1:10000
В	3m S	Sludge Beds	1988	1:10000
С	5m W	Unspecified Wharf	1900	1:10560
D	7m W	Unspecified Wharf	1922	1:10560
Е	8m W	Sewage Works	1914	1:10560







ID	Location	Land Use	Year of mapping	Mapping scale
Е	8m W	Sewage Works	1914	1:10560
С	9m W	Unspecified Wharf	1876	1:10560
Е	9m W	Sewage Works	1922	1:10560
4	21m W	Disused Sewage Tanks	1988	1:10000
С	28m W	Unspecified Wharf	1900	1:10560
F	48m W	Pond	1972	1:10000
F	48m W	Pond	1988	1:10000
D	84m W	Unspecified Wharf	1956	1:10560
D	85m W	Unspecified Wharf	1914	1:10560
D	85m W	Unspecified Wharf	1914	1:10560
G	108m SW	Unspecified Wharf	1914	1:10560
G	108m SW	Unspecified Wharf	1914	1:10560
G	109m SW	Unspecified Wharf	1922	1:10560
Н	109m S	Unspecified Heap	1914	1:10560
Н	109m S	Unspecified Heap	1914	1:10560
Н	111m S	Unspecified Heap	1922	1:10560
I	121m NW	Old Gravel Pit	1956	1:10560
J	125m SE	Unspecified Heap	1968	1:10560
J	151m S	Covered Reservoir	1972	1:10000
5	165m NE	Cuttings	1876	1:10560
К	172m N	Unspecified Wharf	1955	1:10560
К	173m N	Unspecified Wharf	1900	1:10560
К	174m N	Unspecified Wharf	1922	1:10560
К	174m N	Unspecified Wharf	1914	1:10560
К	174m N	Unspecified Wharf	1914	1:10560
К	199m N	Unspecified Wharf	1900	1:10560
К	201m N	Unspecified Wharf	1876	1:10560
L	203m N	Old Canal	1922	1:10560







ID	Location	Land Use	Year of mapping	Mapping scale
L	205m N	Old Canal	1914	1:10560
Μ	210m N	Canal	1876	1:10560
К	215m N	Old Canal	1980	1:10000
6	216m W	Pond	1876	1:10560
7	222m N	Old Canal	1900	1:10560
8	231m N	Pond	1876	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

## **18.3 Underground workings**

Records within 1000m	0
Historical land uses identified from Ordnance Survey mapping that indicate the presence of undergr	ound
workings e.g. mine shafts.	

This is data is sourced from Ordnance Survey/Groundsure.

### **18.4 Underground mining extents**

Records within 500m	0
This data identifies underground mine workings that could present a potential risk, including adits ar	id seam

workings. These features have been identified from BGS Geological mapping and mine plans sourced from

This data is sourced from Groundsure.

### **18.5 Historical Mineral Planning Areas**

the BGS and various collections and sources.

**Records within 500m** 

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

Features are displayed on the Mining and ground workings map on page 159 >

ID	Location	Site Name	Mineral	Туре	Planning Status	Planning Status Date
3	17m N	Eynsham	Sand and gravel	Surface mineral working	Application	Not available





ID	Location	Site Name	Mineral	Туре	Planning Status	Planning Status Date
Q	410m N	Eynsham Road	Sand and gravel	Surface mineral working	Valid	9/6/47
S	418m N	Eynsham Road	Sand and gravel	Surface mineral working	Valid	9/6/47
Т	460m N	Eynsham Road	Sand and gravel	Surface mineral working	Valid	9/6/47

This data is sourced from the British Geological Survey.

### **18.6 Non-coal mining**

Records within 1000m	0
The potential for historical non-coal mining to have affected an area. The assessment is drawn from e	expert
knowledge and literature in addition to the digital geological map of Britain. Mineral commodities ma	ay be

divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

#### **18.7 JPB mining areas**

#### Records on site

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

This data is sourced from Johnson Poole and Bloomer.

## 18.8 The Coal Authority non-coal mining

#### **Records within 500m**

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.





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#### **18.9 Researched mining**

#### Records within 500m

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

#### 18.10 Mining record office plans

Records within 500m

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

#### 18.11 BGS mine plans

#### Records within 500m

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

### 18.12 Coal mining

**Records on site** 

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

This data is sourced from the Coal Authority.

## 18.13 Brine areas

#### **Records on site**

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





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

#### 18.14 Gypsum areas

# Records on site

#### Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

## 18.15 Tin mining

Records on site

#### Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

## 18.16 Clay mining

**Records on site** 

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

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







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## **19 Ground cavities and sinkholes**

#### **19.1 Natural cavities**

#### **Records within 500m**

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

This data is sourced from Stantec UK Ltd.

#### **19.2 Mining cavities**

#### Records within 1000m

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

This data is sourced from Stantec UK Ltd.

#### **19.3 Reported recent incidents**

#### Records within 500m

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

### **19.4 Historical incidents**

#### **Records within 500m**

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.







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This data is sourced from Groundsure.

### **19.5 National karst database**

#### Records within 500m

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.







## 20 Radon



### 20.1 Radon

#### **Records on site**

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The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on page 168 >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None







This data is sourced from the British Geological Survey and UK Health Security Agency.







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## 21 Soil chemistry

## 21.1 BGS Estimated Background Soil Chemistry

#### **Records within 50m**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmiu m	Chromium	Nickel
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg



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Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmiu m	Chromium	Nickel
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	200 - 300 mg/kg	120 - 240 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
On site	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
7m NW	25 - 35 mg/kg	No data	200 - 300 mg/kg	120 - 240 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
7m NW	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg







Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmiu m	Chromium	Nickel
8m N	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
13m SE	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
13m SE	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
13m SE	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
13m SE	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
22m W	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
22m W	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
22m W	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
22m W	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
30m S	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
31m NW	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
31m S	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 - 30 mg/kg
31m S	25 - 35 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

## 21.2 BGS Estimated Urban Soil Chemistry

#### Records within 50m

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

This data is sourced from the British Geological Survey.



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### 21.3 BGS Measured Urban Soil Chemistry

#### **Records within 50m**

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







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## 22 Railway infrastructure and projects



### 22.1 Underground railways (London)

#### **Records within 250m**

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

This data is sourced from publicly available information by Groundsure.

#### 22.2 Underground railways (Non-London)

#### **Records within 250m**

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





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This data is sourced from publicly available information by Groundsure.

### 22.3 Railway tunnels

# Records within 250m

#### Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

## 22.4 Historical railway and tunnel features

Records	within	250m				1
			 	 -		

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

Features are displayed on the Railway infrastructure and projects map on page 174 >

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1956	10560

This data is sourced from Ordnance Survey/Groundsure.

## 22.5 Royal Mail tunnels

Records within 250m	0
The Dect Office Pailway, etherwise known as the Mail Pail, is an underground railway running thr	ough

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

This data is sourced from Groundsure/the Postal Museum.

## 22.6 Historical railways

Records within 250m	5
Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and	razed
lines.	

Features are displayed on the Railway infrastructure and projects map on page 174 >

Location	Description
On site	Abandoned







Location	Description
On site	Abandoned
On site	Dismantled
On site 105m W	Abandoned

This data is sourced from OpenStreetMap.

#### 22.7 Railways

**Records within 250m** 

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

This data is sourced from Ordnance Survey and OpenStreetMap.

### 22.8 Crossrail 1

#### **Records within 500m**

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

This data is sourced from publicly available information by Groundsure.

#### 22.9 Crossrail 2

**Records within 500m** 

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

This data is sourced from publicly available information by Groundsure.

#### 22.10 HS2

#### Records within 500m

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





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This data is sourced from HS2 ltd.







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## Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see

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