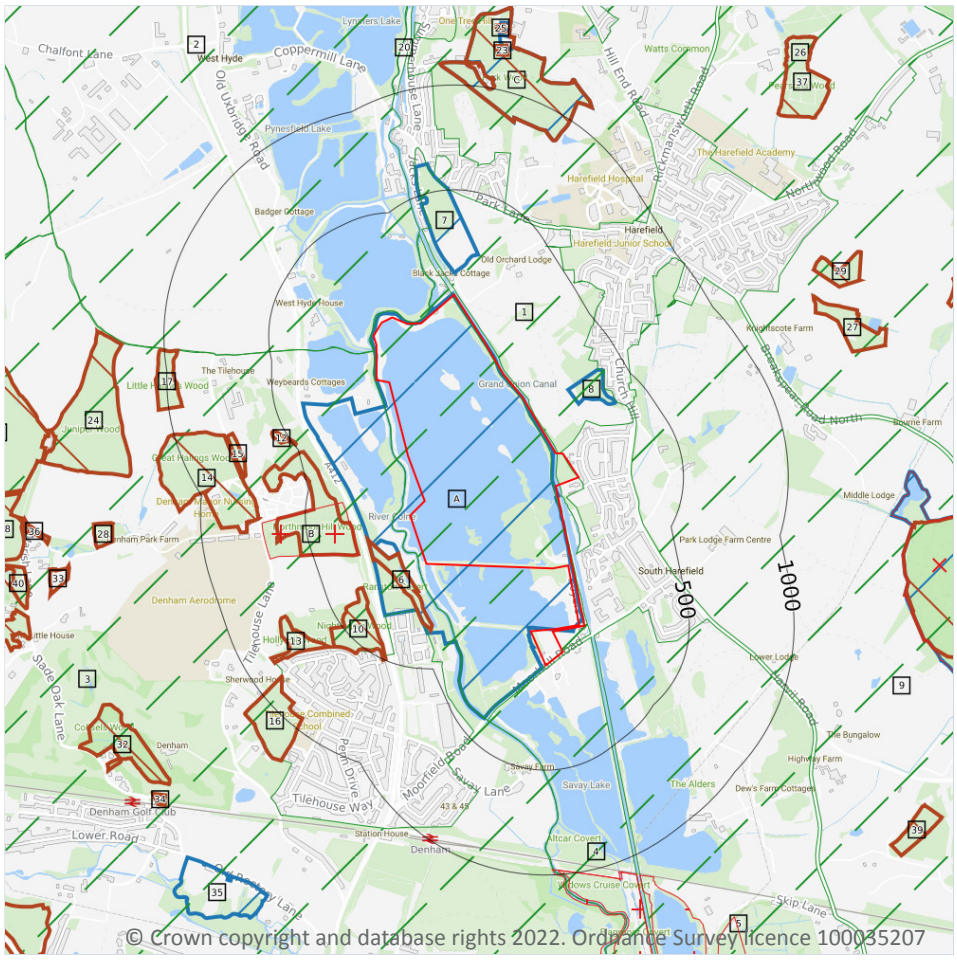
10 Environmental designations



Site Outline

Search buffers in metres (m)

- Sites of Special Scientific Interest (SSSI)
- National Nature Reserves (NNR)
- Local Nature Reserves (LNR)
- Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	6

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

Features are displayed on the Environmental designations map on **page 92**

ID	Location	Name	Data source
A	**On site**	**Mid Colne Valley**	**Natural England**

ID	Location	Name	Data source
7	106m N	Mid Colne Valley	Natural England
8	205m NE	Harefield Pit	Natural England
C	871m N	Old Park Wood	Natural England
D	1504m E	Ruislip Woods	Natural England
35	1722m SW	Old Rectory Meadows	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	1

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

Features are displayed on the Environmental designations map on **page 92**

ID	Location	Name	Data source
D	1504m E	Ruislip Woods	Natural England

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	5

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

Features are displayed on the Environmental designations map on **page 92**

ID	Location	Name	Data source
B	283m W	NorthmoorHill Wood	Natural England
18	974m S	Denham Country Park (Mapped boundary not verified)	Natural England
19	979m S	Denham Quarry Park (Mapped boundary not verified)	Natural England
22	1097m SE	Frays Valley	Natural England
30	1500m SE	Frays Valley	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	28

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

Features are displayed on the Environmental designations map on **page 92**

ID	Location	Name	Woodland Type
6	104m SW	Unknown	Ancient & Semi-Natural Woodland
B	283m W	Northmoor Hill Wood	Ancient & Semi-Natural Woodland
10	326m W	Unknown	Ancient & Semi-Natural Woodland
12	490m SW	Unknown	Ancient & Semi-Natural Woodland
13	608m SW	Unknown	Ancient & Semi-Natural Woodland
14	721m W	Northmoor Hill Wood	Ancient & Semi-Natural Woodland
15	728m SW	Unknown	Ancient & Semi-Natural Woodland
C	871m N	Old Park Wood	Ancient & Semi-Natural Woodland
16	874m SW	Newstead Wood	Ancient & Semi-Natural Woodland
17	935m W	Unknown	Ancient & Semi-Natural Woodland
23	1165m N	Old Park Wood	Ancient Replanted Woodland
24	1201m W	Unknown	Ancient & Semi-Natural Woodland
25	1275m N	Old Park Wood	Ancient Replanted Woodland
27	1376m NE	Clay Pits Wood	Ancient & Semi-Natural Woodland
28	1420m W	Unknown	Ancient & Semi-Natural Woodland
29	1483m NE	Asham Spring Wood	Ancient & Semi-Natural Woodland
D	1535m E	Bayhurst Wood	Ancient & Semi-Natural Woodland
31	1584m W	Oakend/nockhill/denham Marsh/juniper Woods	Ancient & Semi-Natural Woodland
32	1595m SW	Unknown	Ancient & Semi-Natural Woodland
33	1646m W	Unknown	Ancient & Semi-Natural Woodland
34	1664m SW	Unknown	Ancient & Semi-Natural Woodland
36	1725m W	Unknown	Ancient & Semi-Natural Woodland
37	1767m NE	Pearsons Wood	Ancient Replanted Woodland
38	1781m W	Unknown	Ancient & Semi-Natural Woodland
39	1798m SE	Newyears Green Covert	Ancient & Semi-Natural Woodland
40	1854m W	Unknown	Ancient & Semi-Natural Woodland
41	1887m W	Oakend/nockhill/denham Marsh/juniper Woods	Ancient & Semi-Natural Woodland
42	1949m NE	Scarlet Spring	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	11

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

Features are displayed on the Environmental designations map on **page 92**

ID	Location	Name	Local Authority name
1	**On site**	**London**	**Hillingdon**
A	**On site**	**London**	**Hillingdon**
2	6m N	London	Three Rivers
3	8m W	London	Buckinghamshire
4	13m SE	London	Hillingdon
5	66m SE	London	Hillingdon

ID	Location	Name	Local Authority name
9	251m E	London	Hillingdon
11	474m NE	London	Hillingdon
20	990m N	London	Hillingdon
21	1074m NE	London	Hillingdon
26	1362m NE	London	Hillingdon

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

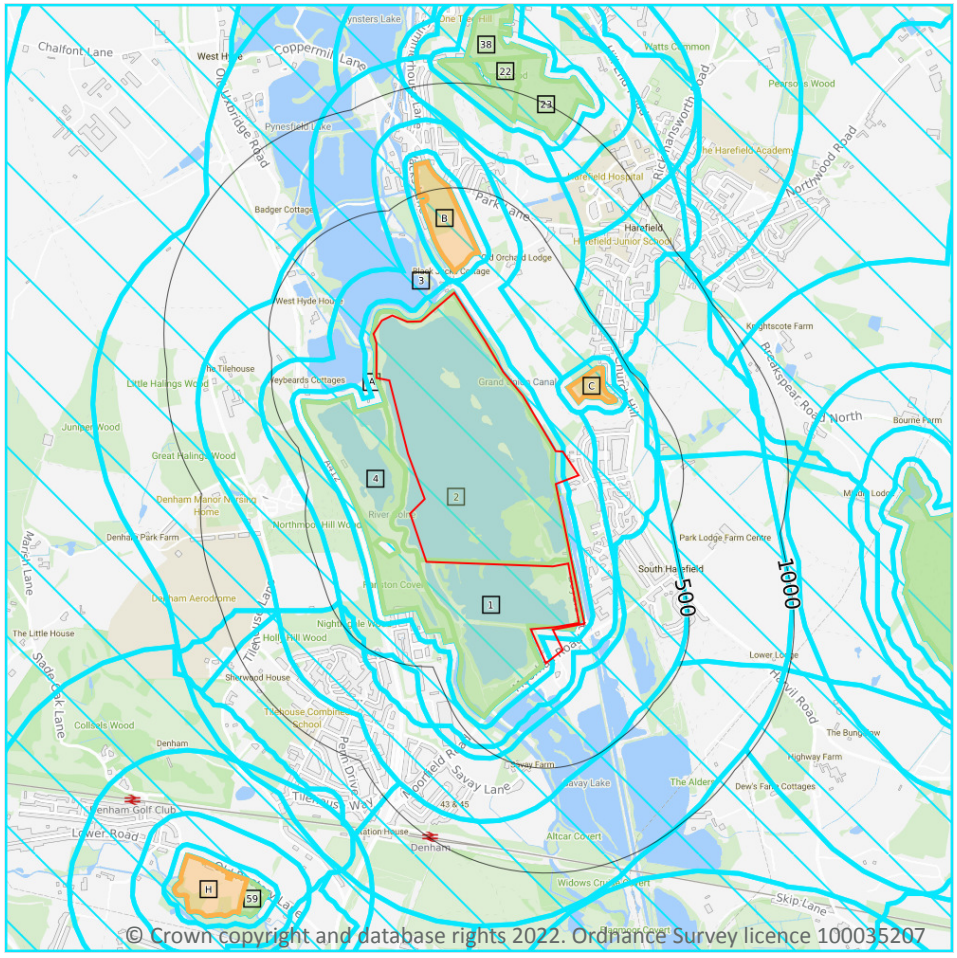
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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

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

SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site	3

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

Features are displayed on the SSSI Impact Zones and Units map on **page 99**

ID	Location	Type of developments requiring consultation
2	**On site**	**All applications - All planning applications.**

ID	Location	Type of developments requiring consultation
3	**On site**	**All applications - All planning applications (except householder) outside or extending outside existing settlements/urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings/structures. Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Rural non-residential - Large non residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m² or footprint exceeds 0.2ha. Residential - Residential development of 10 units or more. Rural residential - Any residential developments outside of existing settlements/urban areas with a total net gain in residential units. Air pollution - Any development that could cause air pollution or dust either in its construction or operation (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores). Combustion - All general combustion processes. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management. Composting - Any composting proposal. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Discharges - Any discharge of water or liquid waste that is discharged to ground (ie to seep away) or to surface water, such as a beck or stream. Water supply - Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m² or any development needing its own water supply .**
A	**On site**	**All applications - All planning applications - except householder applications.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**11**

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

Features are displayed on the SSSI Impact Zones and Units map on **page 99**

ID:	1
Location:	On site
SSSI name:	Mid Colne Valley
Unit name:	Harefield Lake And Korda Lake
Broad habitat:	Standing Open Water And Canals
Condition:	Favourable

Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of breeding birds - Tufted duck, Aythya fuligula	-	-
Aggregations of non-breeding birds - variety of wintering species	-	-
Assemblages of breeding birds - Mixed: Lowland damp grassland, Scrub, Woodland	Favourable	22/07/2011
Assemblages of breeding birds - variety of species	Favourable	22/07/2011

ID: A
Location: On site
SSSI name: Mid Colne Valley
Unit name: Broadwater Lake
Broad habitat: Standing Open Water And Canals
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of breeding birds - Tufted duck, Aythya fuligula	-	-
Aggregations of non-breeding birds - variety of wintering species	-	-
Assemblages of breeding birds - Mixed: Lowland damp grassland, Scrub, Woodland	Favourable	22/07/2011
Assemblages of breeding birds - variety of species	Favourable	22/07/2011

ID: 4
Location: 30m W
SSSI name: Mid Colne Valley
Unit name: Tilehouse South
Broad habitat: Standing Open Water And Canals
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Aggregations of breeding birds - Tufted duck, Aythya fuligula	-	-
Aggregations of non-breeding birds - variety of wintering species	-	-
Assemblages of breeding birds - Mixed: Lowland damp grassland, Scrub, Woodland	Favourable	27/03/2013

Feature name	Feature condition	Date of assessment
Assemblages of breeding birds - variety of species	Favourable	27/03/2013

ID: B
Location: 106m N
SSSI name: Mid Colne Valley
Unit name: Coppermill Down
Broad habitat: Calcareous Grassland - Lowland
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland calcareous grassland (CG3-5)	Unfavourable - Declining	22/07/2011

ID: C
Location: 205m NE
SSSI name: Harefield Pit
Unit name: 1
Broad habitat: Earth Heritage
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
ED - Palaeogene	Unfavourable - Declining	30/03/2009
ED - Tertiary Palaeobotany	Unfavourable - Declining	30/03/2009

ID: 22
Location: 871m N
SSSI name: Old Park Wood
Unit name: Parkwood Farm
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	15/01/2020

ID: 23
Location: 874m NE
SSSI name: Old Park Wood
Unit name: Eastern Area
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	15/01/2020

ID: 38
Location: 1112m N
SSSI name: Old Park Wood
Unit name: Weybeard's Farm
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mixed deciduous woodland	Favourable	15/01/2020

ID: 56
Location: 1504m E
SSSI name: Ruislip Woods
Unit name: Bayhurst Wood
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
Invert. assemblage A1 arboreal canopy	Favourable	18/11/2020
Invert. assemblage A2 wood decay	Favourable	18/11/2020
Lowland mixed deciduous woodland	Favourable	18/11/2020

ID: 59
Location: 1722m SW
SSSI name: Old Rectory Meadows
Unit name: 2
Broad habitat: Neutral Grassland - Lowland
Condition: Favourable
Reportable features:

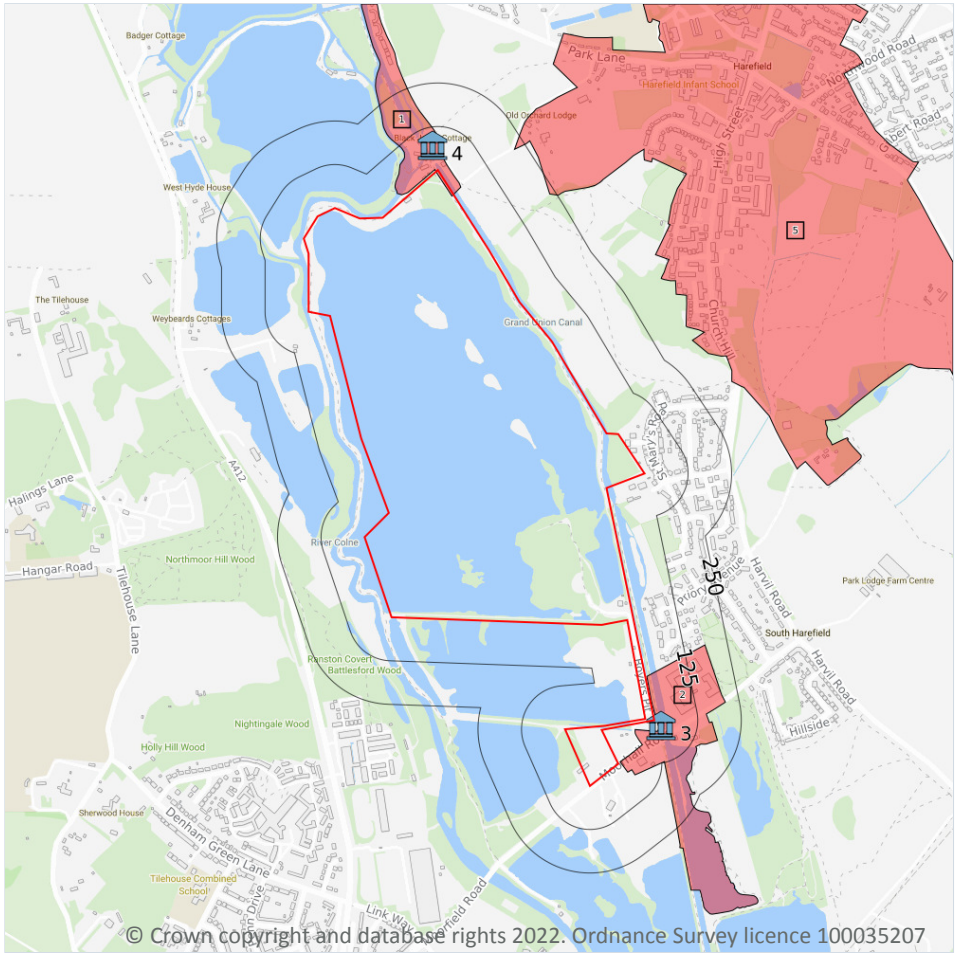
Feature name	Feature condition	Date of assessment
Wet woodland	Favourable	01/12/2010

ID: H
Location: 1741m SW
SSSI name: Old Rectory Meadows
Unit name: 1
Broad habitat: Neutral Grassland - Lowland
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Lowland mire grassland and rush pasture	Unfavourable - Declining	01/10/2010
Lowland neutral grassland (MG5)	Unfavourable - Declining	01/10/2010
Wet woodland	Favourable	01/10/2010

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

11 Visual and cultural designations



Site Outline

Search buffers in metres (m)

- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	2

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

Features are displayed on the Visual and cultural designations map on **page 105**

ID	Location	Name	Grade	Reference Number	Listed date
3	24m SE	Widewater Lock Cottage, Harefield, Hillingdon, London, UB9	II	1080085	10/11/1992
4	72m N	Black Jack's Cottage, Harefield, Hillingdon, London, UB9	II	1080256	06/09/1974

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

11.5 Conservation Areas

Records within 250m	3

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

Features are displayed on the Visual and cultural designations map on **page 105**

ID	Location	Name	District	Date of designation
1	**On site**	**Black Jacks and Copper Mill Lock**	**Hillingdon**	**1975**
2	3m E	Widewater Lock	Hillingdon	1988
5	218m NE	Harefield Village	Hillingdon	1970

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

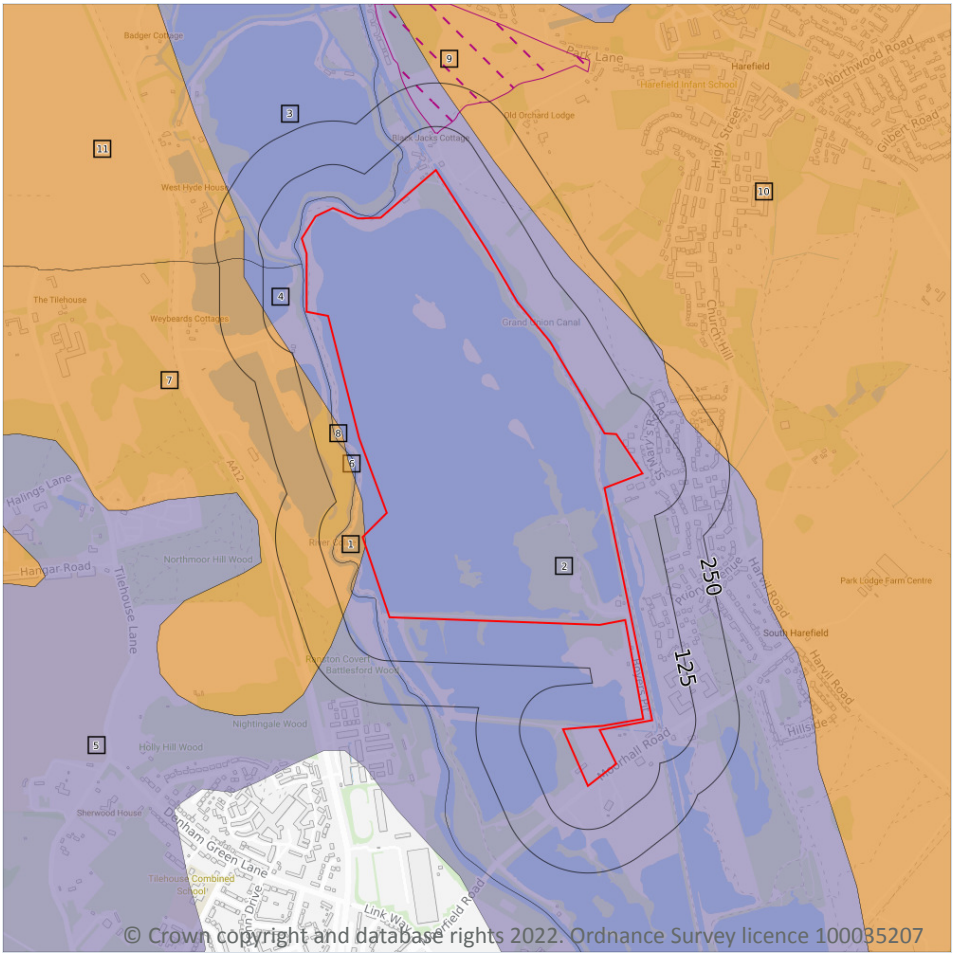
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

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

12.1 Agricultural Land Classification

Records within 250m	10

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

Features are displayed on the Agricultural designations map on **page 108**

ID	Location	Classification	Description
1	On site	Grade 3	**Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.**

ID	Location	Classification	Description
2	**On site**	**Non Agricultural**	**-**
3	5m N	Non Agricultural	-
4	6m W	Non Agricultural	-
5	22m W	Non Agricultural	-
6	38m W	Non Agricultural	-
7	39m W	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
8	44m W	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
10	152m NE	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.
11	166m W	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	**1**

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

Features are displayed on the Agricultural designations map on **page 108**

ID	Location	Name	Classification	Other relevant legislation
9	106m N	-	Section 4 Conclusive Open Country	-

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

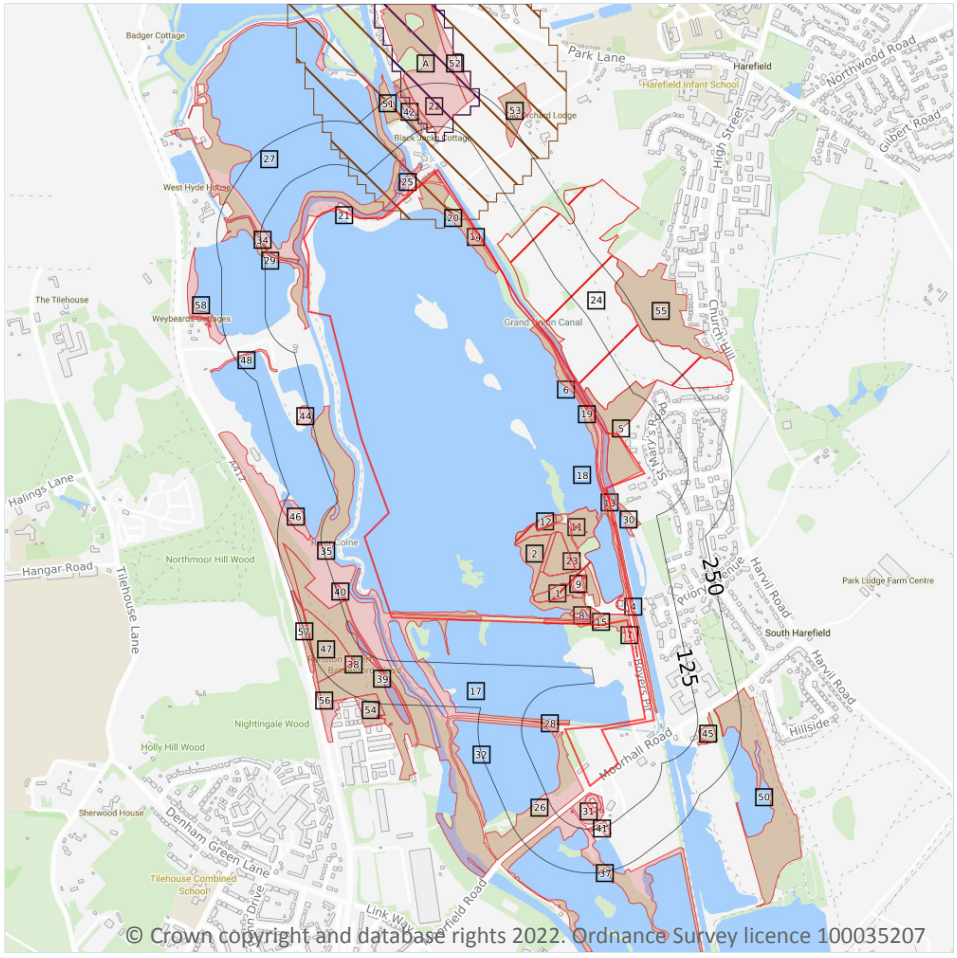
12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	56

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 111**

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
5	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
6	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (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%)**
10	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
11	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
12	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
13	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
14	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
15	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
16	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
17	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
18	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
19	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
20	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
21	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
25	4m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
26	9m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
27	10m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
28	11m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
29	13m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
30	17m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
31	19m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
32	20m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
33	25m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
34	30m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
35	35m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
36	59m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
37	84m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
38	104m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	105m N	Lowland calcareous grassland	Main habitat: RBEDS (INV > 50%); LMEAD (INV > 50%); LCGRA (ENSIS L1)
39	108m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
40	110m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
41	111m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
42	115m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
43	118m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
44	119m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
45	130m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
46	156m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
47	161m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
48	167m W	No main habitat but additional habitats present	Main habitat: RBEDS (INV > 50%)
49	173m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
50	175m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
51	181m N	No main habitat but additional habitats present	Main habitat: DWOOD (INV > 50%)
52	209m N	Lowland calcareous grassland	Main habitat: RBEDS (INV > 50%); LCGRA (ENSIS L1)
53	212m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
54	224m S	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
55	232m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
56	233m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
57	236m SW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
58	246m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	2

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 111**

ID	Location	Type	Habitat
22	**On site**	**Network Enhancement Zone 2**	**Not specified**
A	83m N	Primary Habitat	Lowland calcareous grassland

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	2

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.

Features are displayed on the Habitat designations map on **page 111**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
23	**On site**	**BRITPITS ref: 2393**	**Low**	**British Geological Survey BRITPITS database**	**Environment Agency Historic Landfill Sites**	**UK Perspectives Aerial Photography**
24	4m NE	Disused workings, Harefield; BRITPITS ref: 19809	Low	BugLife All Of A Buzz Data	British Geological Survey BRITPITS database	UK Perspectives Aerial Photography

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

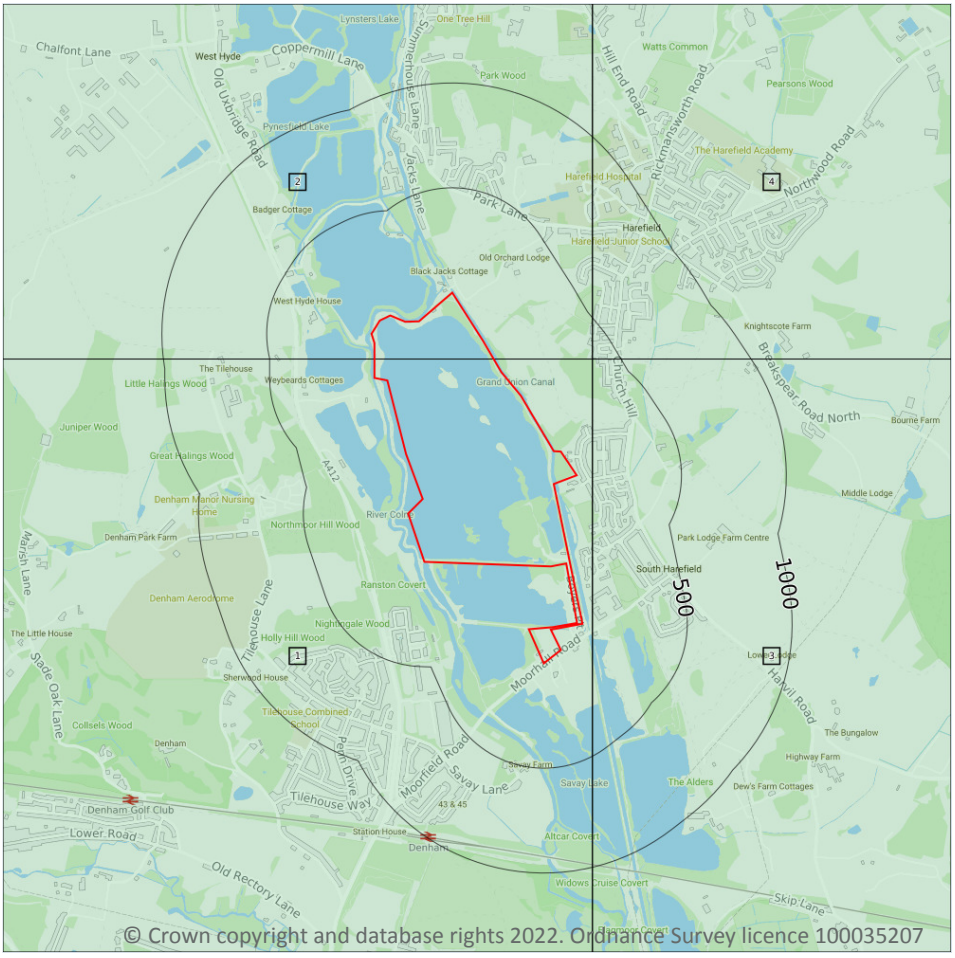
Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs

which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	4

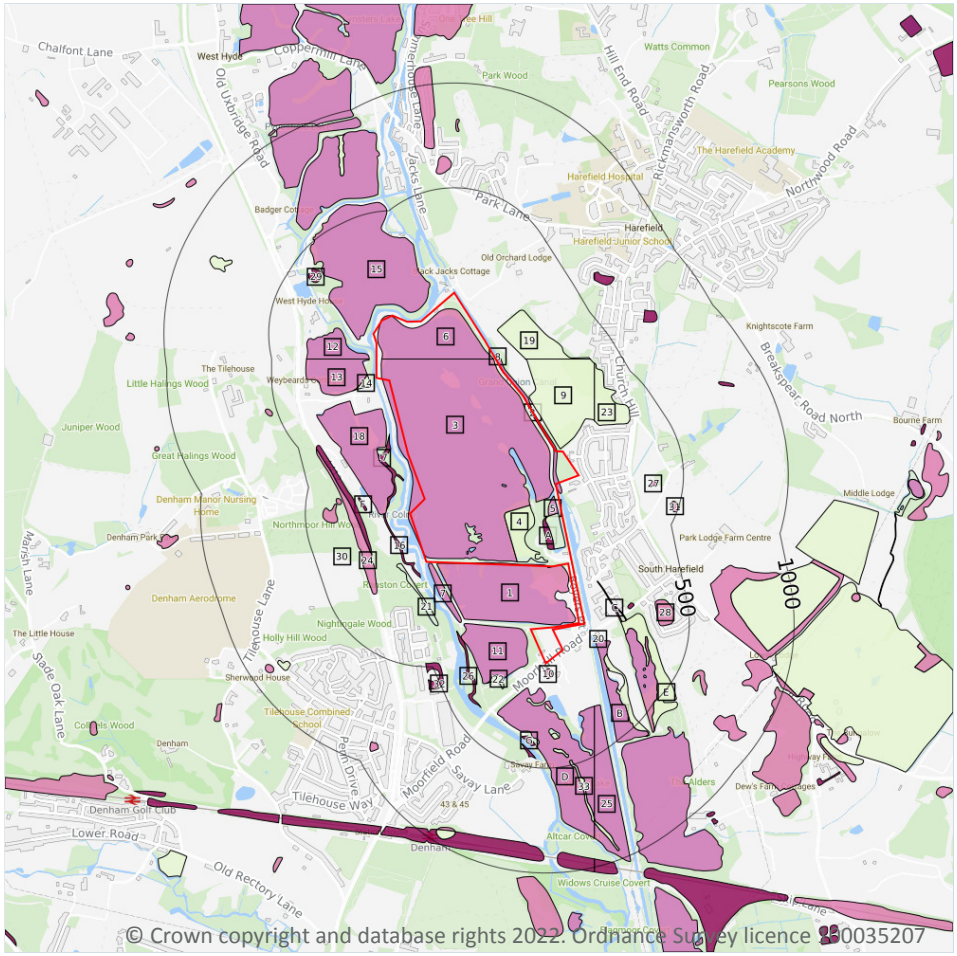
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 116**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**TQ08NW**
2	**On site**	**Full**	**Full**	**Full**	**No coverage**	**TQ09SW**
3	48m SE	Full	Full	Full	No coverage	TQ08NE
4	383m NE	Full	Full	Full	No coverage	TQ09SE

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m	50

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 118**

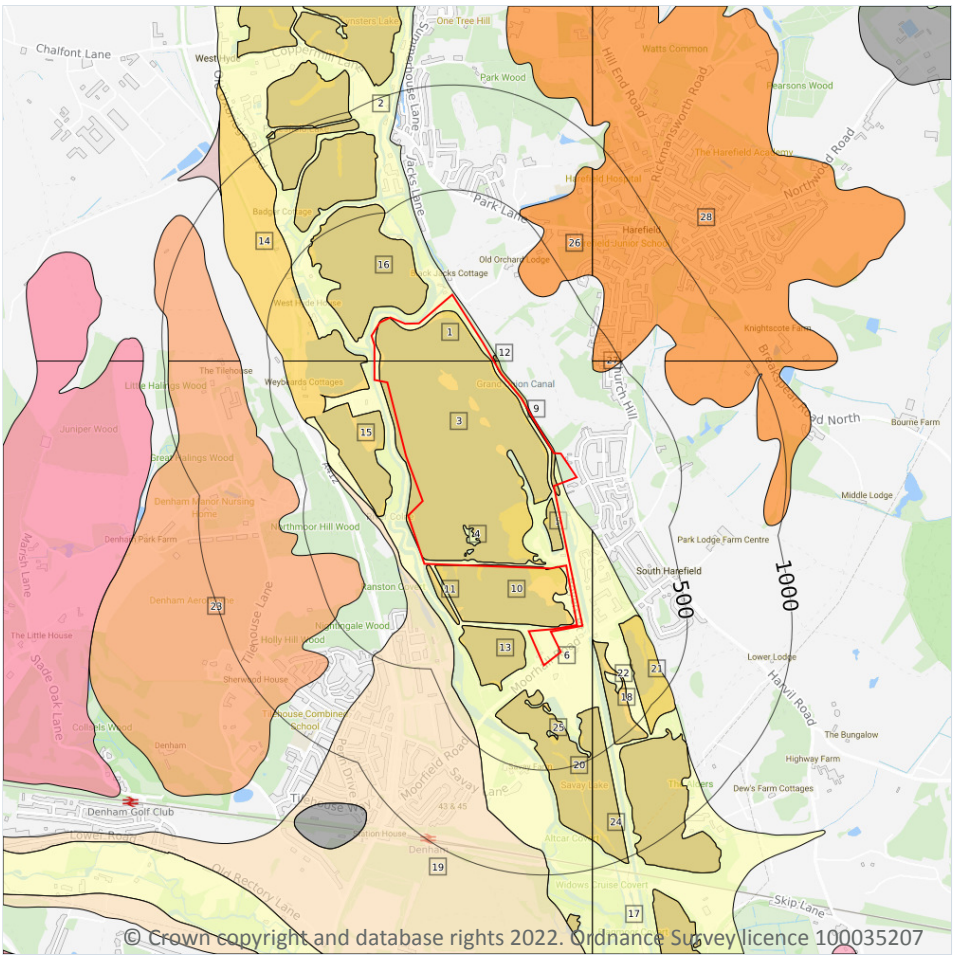
ID	Location	LEX Code	Description	Rock description
1	On site	WGR-VOID	Worked Ground (Undivided)	Void
2	On site	WGR-VOID	Worked Ground (Undivided)	Void
3	On site	WGR-VOID	Worked Ground (Undivided)	Void
4	On site	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	**On site**	**WGR-VOID**	**Worked Ground (Undivided)**	**Void**
6	**On site**	**WGR-VOID**	**Worked Ground (Undivided)**	**Void**
A	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
A	**On site**	**WMGR-ARTDP**	**Infilled Ground**	**Artificial Deposit**
7	5m S	WGR-VOID	Worked Ground (Undivided)	Void
8	6m N	WGR-VOID	Worked Ground (Undivided)	Void
9	12m E	WMGR-ARTDP	Infilled Ground	Artificial Deposit
10	27m S	WGR-VOID	Worked Ground (Undivided)	Void
11	34m S	WGR-VOID	Worked Ground (Undivided)	Void
12	35m NW	WGR-VOID	Worked Ground (Undivided)	Void
13	35m NW	WGR-VOID	Worked Ground (Undivided)	Void
14	35m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
15	40m NW	WGR-VOID	Worked Ground (Undivided)	Void
16	55m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
17	62m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
18	66m W	WGR-VOID	Worked Ground (Undivided)	Void
19	77m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
B	84m SE	WGR-VOID	Worked Ground (Undivided)	Void
20	88m SE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
C	100m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
21	105m SW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
D	121m S	WGR-VOID	Worked Ground (Undivided)	Void
E	174m SE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
B	180m SE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
E	202m SE	WGR-VOID	Worked Ground (Undivided)	Void
22	203m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
F	208m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
23	211m E	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
C	219m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
F	225m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
24	235m SW	WGR-VOID	Worked Ground (Undivided)	Void
25	304m SE	WGR-VOID	Worked Ground (Undivided)	Void
26	321m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
F	331m W	WGR-VOID	Worked Ground (Undivided)	Void
D	336m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
F	347m SW	WGR-VOID	Worked Ground (Undivided)	Void
27	347m E	WGR-VOID	Worked Ground (Undivided)	Void
28	348m SE	WGR-VOID	Worked Ground (Undivided)	Void
29	352m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
G	357m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
30	362m SW	WGR-VOID	Worked Ground (Undivided)	Void
G	400m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
D	409m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit
31	460m E	WGR-VOID	Worked Ground (Undivided)	Void
32	466m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
33	478m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m	28

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 121**

ID	Location	LEX Code	Description	Rock description
1	On site	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
2	On site	ALV-XZC	Alluvium - Silt And Clay	Silt And Clay
3	On site	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
4	On site	ALV-XZC	Alluvium - Silt And Clay	Silt And Clay

ID	Location	LEX Code	Description	Rock description
5	**On site**	**SHGR-XSV**	**Shepperton Gravel Member - Sand And Gravel**	**Sand And Gravel**
6	**On site**	**ALV-XZC**	**Alluvium - Silt And Clay**	**Silt And Clay**
7	**On site**	**ALV-XZC**	**Alluvium - Silt And Clay**	**Silt And Clay**
8	**On site**	**ALV-XZC**	**Alluvium - Silt And Clay**	**Silt And Clay**
9	**On site**	**SHGR-XSV**	**Shepperton Gravel Member - Sand And Gravel**	**Sand And Gravel**
10	**On site**	**SHGR-XSV**	**Shepperton Gravel Member - Sand And Gravel**	**Sand And Gravel**
11	5m S	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
12	6m N	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
13	34m S	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
14	35m NW	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
15	35m NW	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
16	40m NW	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
17	48m SE	ALV-XZC	Alluvium - Silt And Clay	Silt And Clay
18	84m SE	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
19	87m SW	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel
20	121m S	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
21	174m SE	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
22	229m SE	ALV-XZC	Alluvium - Silt And Clay	Silt And Clay
23	297m SW	WIHG-XSV	Winter Hill Gravel - Sand And Gravel	Sand And Gravel
24	304m SE	SHGR-XSV	Shepperton Gravel Member - Sand And Gravel	Sand And Gravel
25	313m S	ALV-XZC	Alluvium - Silt And Clay	Silt And Clay
26	316m N	GCGR-XSV	Gerrards Cross Gravel - Sand And Gravel	Sand And Gravel
27	366m NE	GCGR-XSV	Gerrards Cross Gravel - Sand And Gravel	Sand And Gravel
28	383m NE	GCGR-XSV	Gerrards Cross Gravel - Sand And Gravel	Sand And Gravel

This data is sourced from the British Geological Survey.

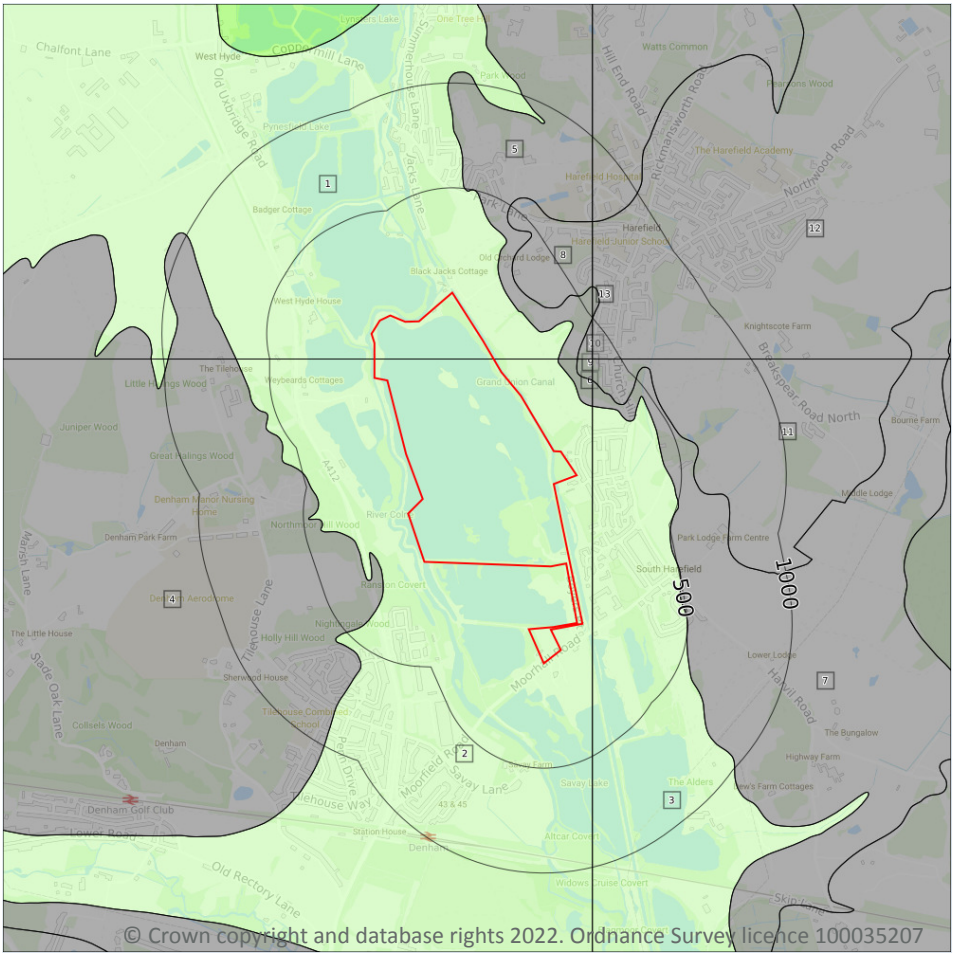
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m	13

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 124**

ID	Location	LEX Code	Description	Rock age
1	On site	SNCK-CHLK	Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated) - Chalk	Campanian Age - Coniacian Age
2	On site	SNCK-CHLK	Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated) - Chalk	Campanian Age - Coniacian Age

ID	Location	LEX Code	Description	Rock age
3	48m SE	SNCK-CHLK	Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated) - Chalk	Campanian Age - Coniacian Age
4	207m SW	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
5	215m N	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
6	235m NE	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
7	264m E	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch
8	280m N	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
9	288m NE	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
10	322m NE	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
11	331m NE	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
12	383m NE	LC-CLSISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
13	498m NE	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch

This data is sourced from the British Geological Survey.

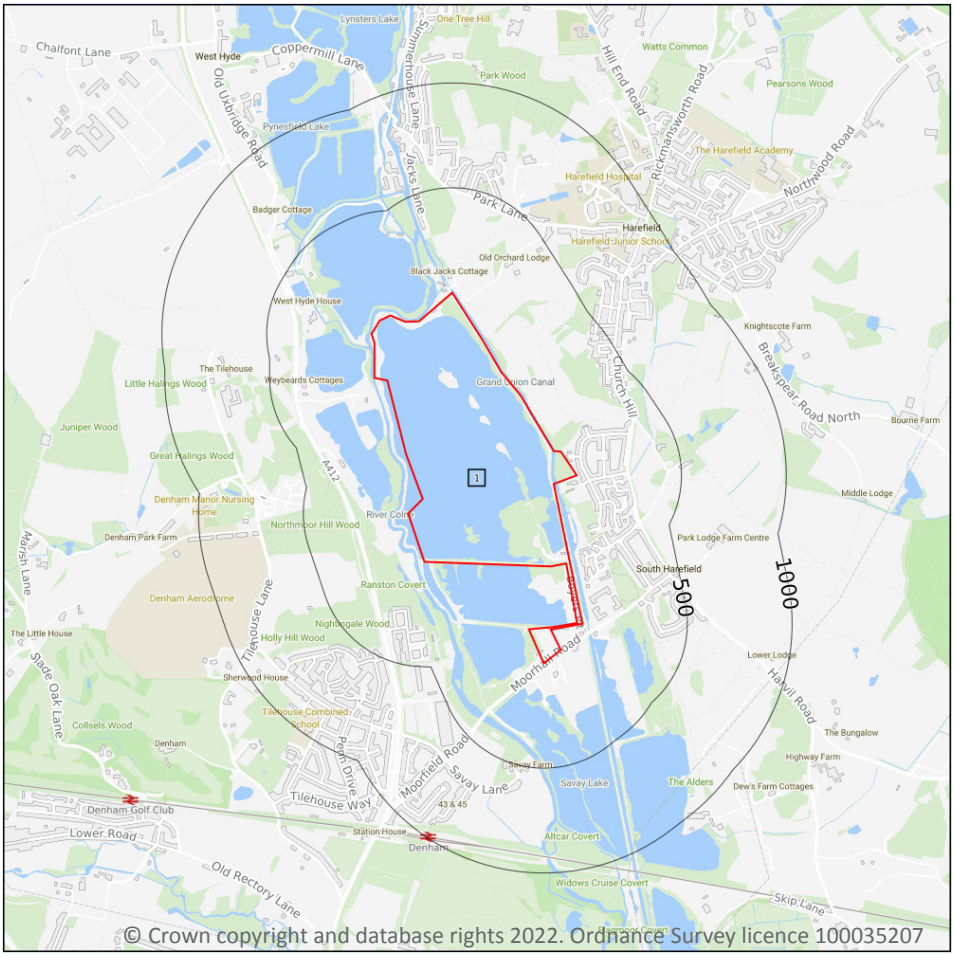
14.6 Bedrock faults and other linear features (10k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

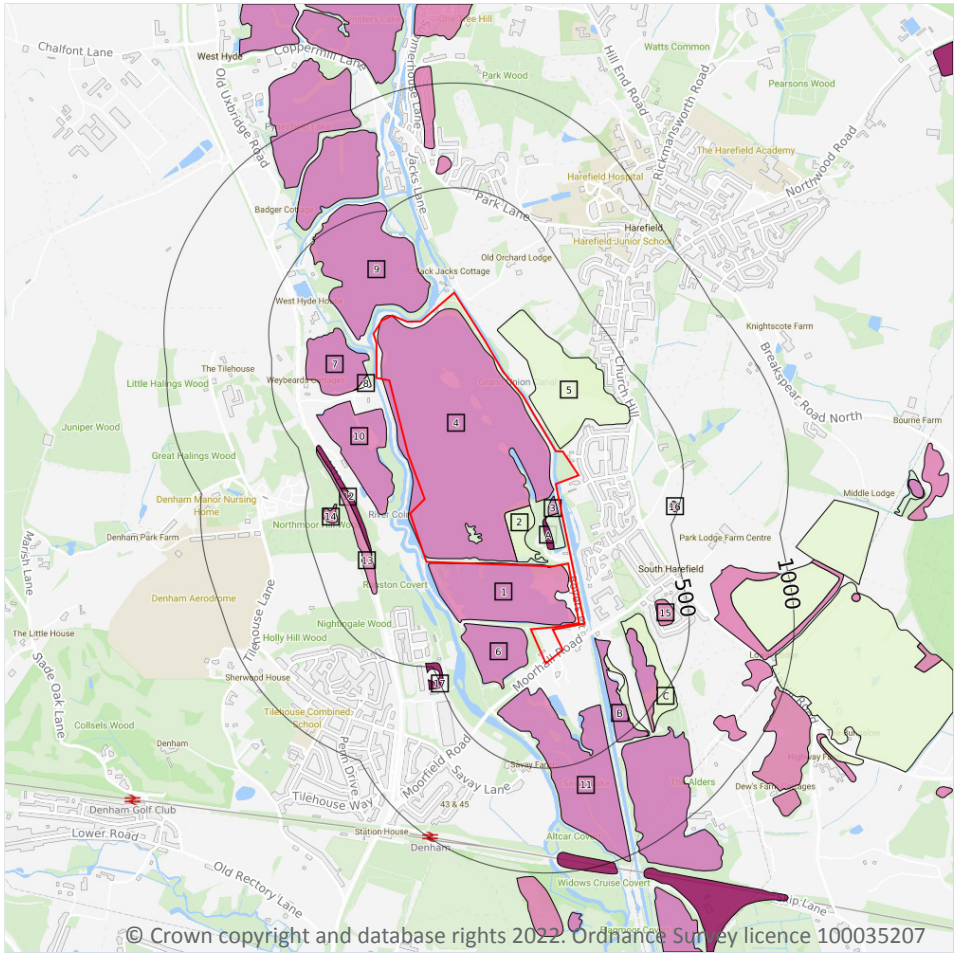
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 126**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW255_beaconsfield_v4**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

15.2 Artificial and made ground (50k)

Records within 500m	23

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 127**

ID	Location	LEX Code	Description	Rock description
1	On site	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	On site	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	On site	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
4	On site	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

ID	Location	LEX Code	Description	Rock description
A	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**
A	**On site**	**WMGR-ARTDP**	**INFILLED GROUND**	**ARTIFICIAL DEPOSIT**
5	12m E	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
6	34m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
7	35m NW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
8	35m NW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
9	40m NW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
10	67m W	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
B	84m SE	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
11	121m S	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
C	174m SE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
B	180m SE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
C	202m SE	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
12	225m SW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
13	236m SW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
14	346m SW	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
15	348m SE	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
16	460m E	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
17	466m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m	**5**

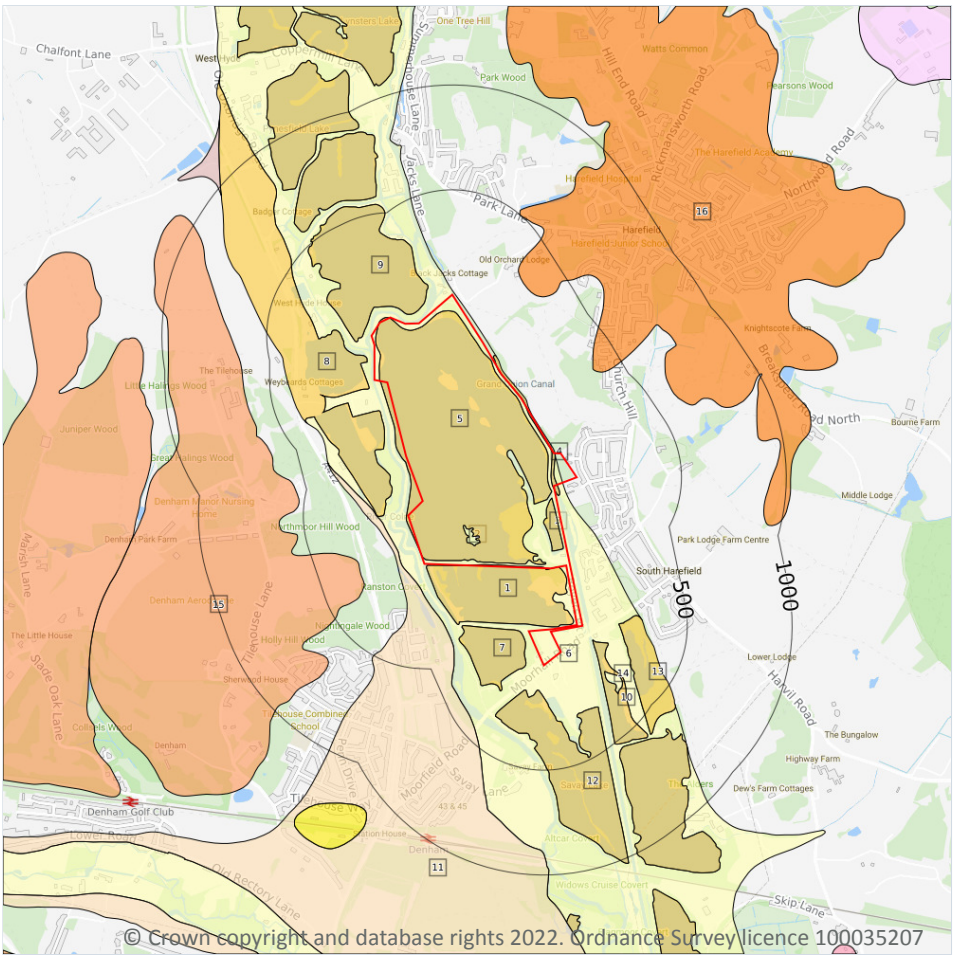
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Very High**	**Low**
12m E	Mixed	Very High	Low
35m NW	Mixed	Very High	Low

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	16

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 130**

ID	Location	LEX Code	Description	Rock description
1	On site	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
2	On site	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	On site	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
4	On site	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
5	**On site**	**SHGR-XSV**	**SHEPPERTON GRAVEL MEMBER**	**SAND AND GRAVEL**
6	**On site**	**ALV-XCZSV**	**ALLUVIUM**	**CLAY, SILT, SAND AND GRAVEL**
7	34m S	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
8	35m NW	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
9	40m NW	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
10	84m SE	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
11	87m SW	TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL
12	121m S	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
13	174m SE	SHGR-XSV	SHEPPERTON GRAVEL MEMBER	SAND AND GRAVEL
14	229m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
15	297m SW	WIHG-XSV	WINTER HILL GRAVEL	SAND AND GRAVEL
16	316m N	GCGR-XSV	GERRARDS CROSS GRAVEL	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m **14**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**High**	**Very Low**
On site	**Intergranular**	**High**	**Very Low**
On site	**Intergranular**	**High**	**Very Low**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
On site	**Intergranular**	**Very High**	**High**
5m N	Intergranular	Very High	High

Location	Flow type	Maximum permeability	Minimum permeability
34m S	Intergranular	Very High	High
35m NW	Intergranular	Very High	High
35m NW	Intergranular	Very High	High
40m NW	Intergranular	Very High	High
48m SE	Intergranular	High	Very Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

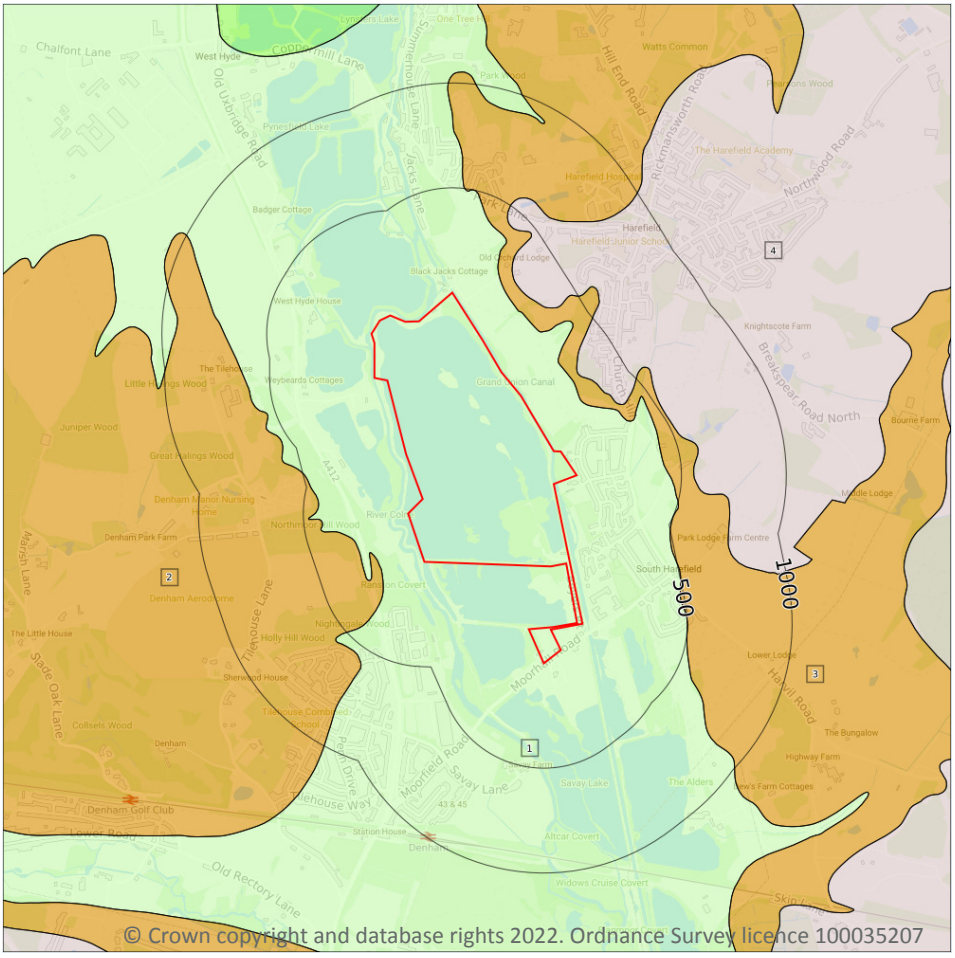
15.7 Landslip permeability (50k)

Records within 50m	**0**

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	4

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 133**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**SNCK-CHLK**	**SEAFORD CHALK FORMATION AND NEWHAVEN CHALK FORMATION (UNDIFFERENTIATED) - CHALK**	**CONIACIAN**
2	206m SW	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN
3	215m N	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN

ID	Location	LEX Code	Description	Rock age
4	280m N	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	**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**	**Very High**	**Very High**
On site	**Fracture**	**Very High**	**Very High**
48m SE	Fracture	Very High	Very High

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	**0**

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

This data is sourced from the British Geological Survey.

16 Boreholes

16.1 BGS Boreholes

Records within 250m	21

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.

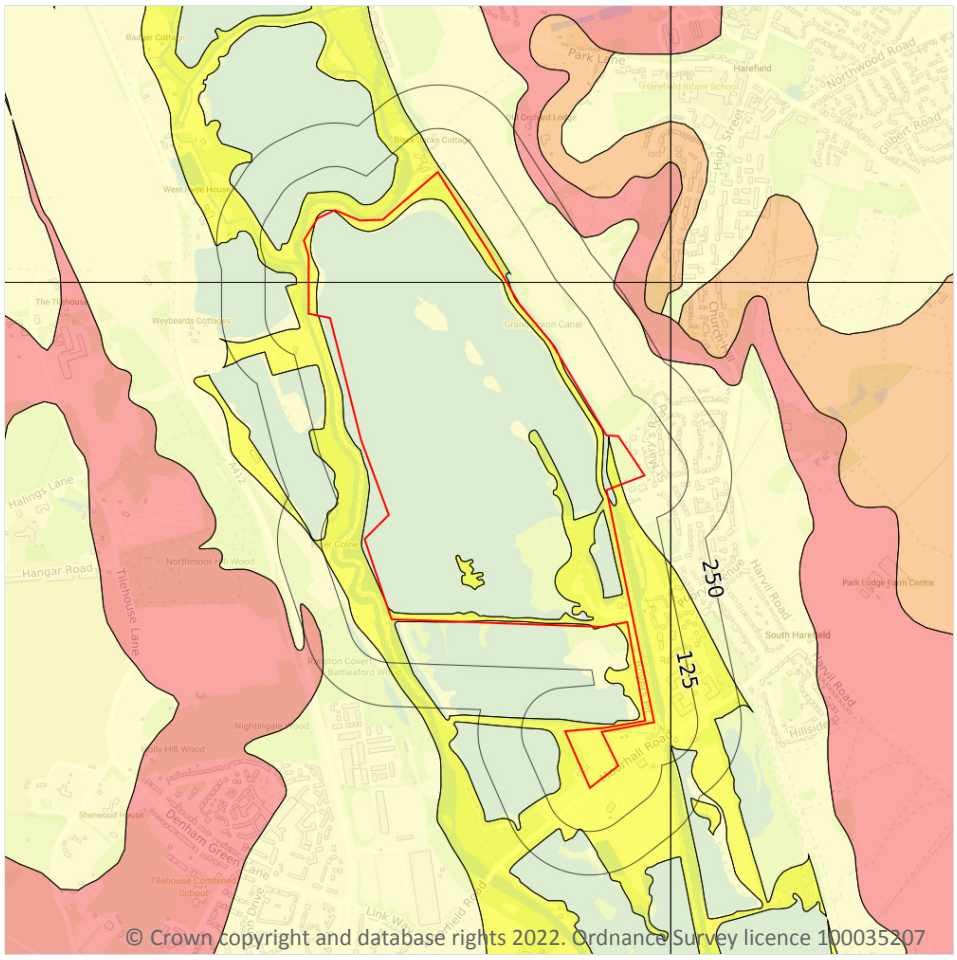
Features are displayed on the Boreholes map on **page 135**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	**On site**	**504700 189600**	**AFFINITY WATER BROADWATER DENHAM BH 5**	**80.0**	**N**	**19289653**
2	39m S	504770 188510	BLACKFORD PUMPING STATION, NO 3	-	Y	N/A
3	41m SW	504100 189300	AFFINITY WATER BROADWATER DENHAM BH 3	57.0	N	19289652

ID	Location	Grid reference	Name	Length	Confidential	Web link
4	45m N	504320 190360	JACKS LOCK, HAREFIELD	2.74	N	577293
5	45m NW	504000 189800	AFFINITY WATER BROADWATER DENHAM BH 1	-	Y	N/A
6	56m SE	504902 189260	Widewater Embankment 87 WS01	2.4	N	20750296
7	58m S	504800 188500	BLACKFORD PUMPING STATION	-	Y	N/A
8	60m NW	503890 190100	WEST HYDE	-1.0	N	577280
9	62m SE	504934 189134	Widewater Embankment 87 WS03	4.0	N	20750297
10	63m SE	504916 189229	Widewater Embankment 87 BH01	10.0	N	20764961
11	67m SE	504925 189202	Widewater Embankment 87 WS02	3.0	N	20764962
12	68m SE	504933 189171	Widewater Embankment 87 BH02	10.0	N	20750295
13	76m N	504310 190390	JACKS LOCK, HAREFIELD	3.2	N	577292
A	82m NW	503960 189810	NORTHMOOR	-	Y	N/A
A	91m NW	503950 189810	NORTHMOOR NEAR DENHAM BUCKS	91.44	N	575342
14	108m S	504830 188460	MOORHALL ROAD HAREFIELD MIDDX	-	Y	N/A
15	122m NW	503890 189810	THREE VALLEYS WATER, REDRICKS LANE PUMPING STATION	-	Y	N/A
16	137m SE	504890 188470	MOORHALL ROAD HAREFIELD	91.44	N	575329
17	190m NW	503770 189940	WEST HYDE PIT, NORTHMOOR	-1.0	N	575739
18	195m NE	504900 189800	HAREFIELD	-1.0	N	575740
19	250m S	504270 188780	RANK LABS LTD NORTH ORBITAL ROAD	37.0	N	575355

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.1 Shrink swell clays

Records within 50m	7

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).

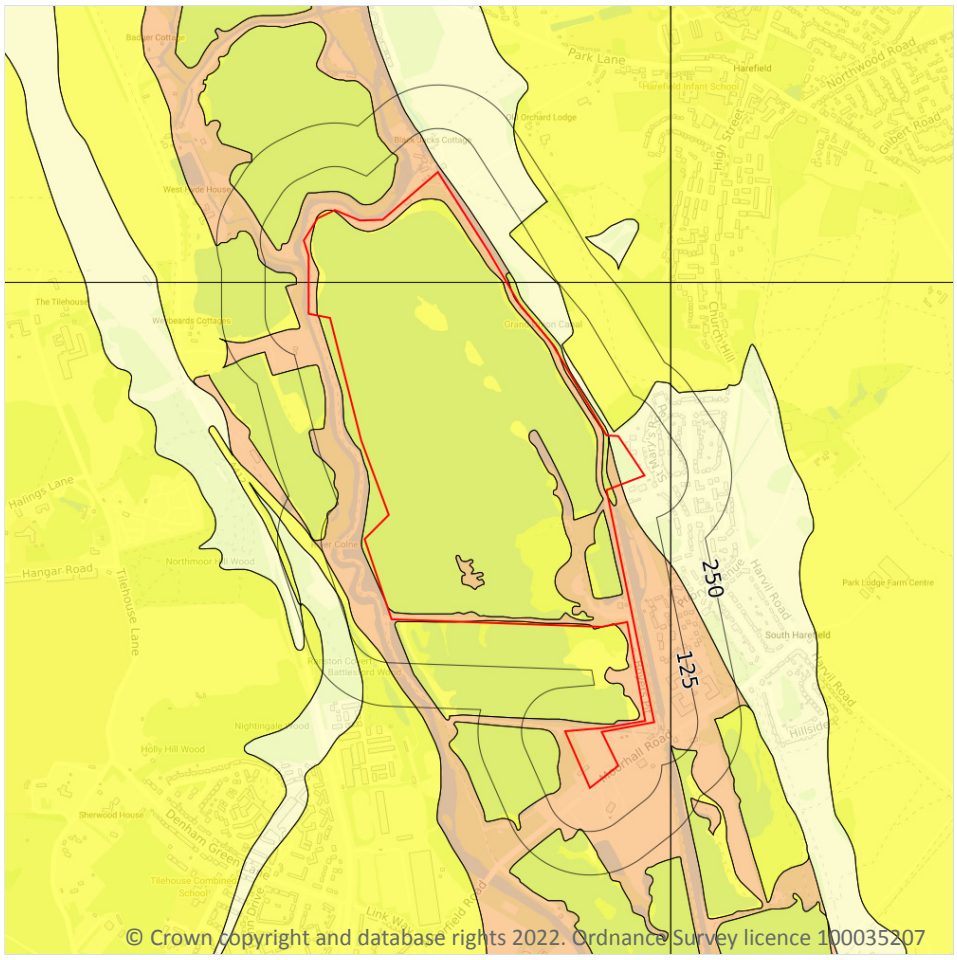
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 137**

Location	Hazard rating	Details
On site	**Negligible**	**Ground conditions predominantly non-plastic.**
On site	**Very low**	**Ground conditions predominantly low plasticity.**
5m N	Negligible	Ground conditions predominantly non-plastic.

Location	Hazard rating	Details
34m S	Negligible	Ground conditions predominantly non-plastic.
35m NW	Negligible	Ground conditions predominantly non-plastic.
40m NW	Negligible	Ground conditions predominantly non-plastic.
48m SE	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	10

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.

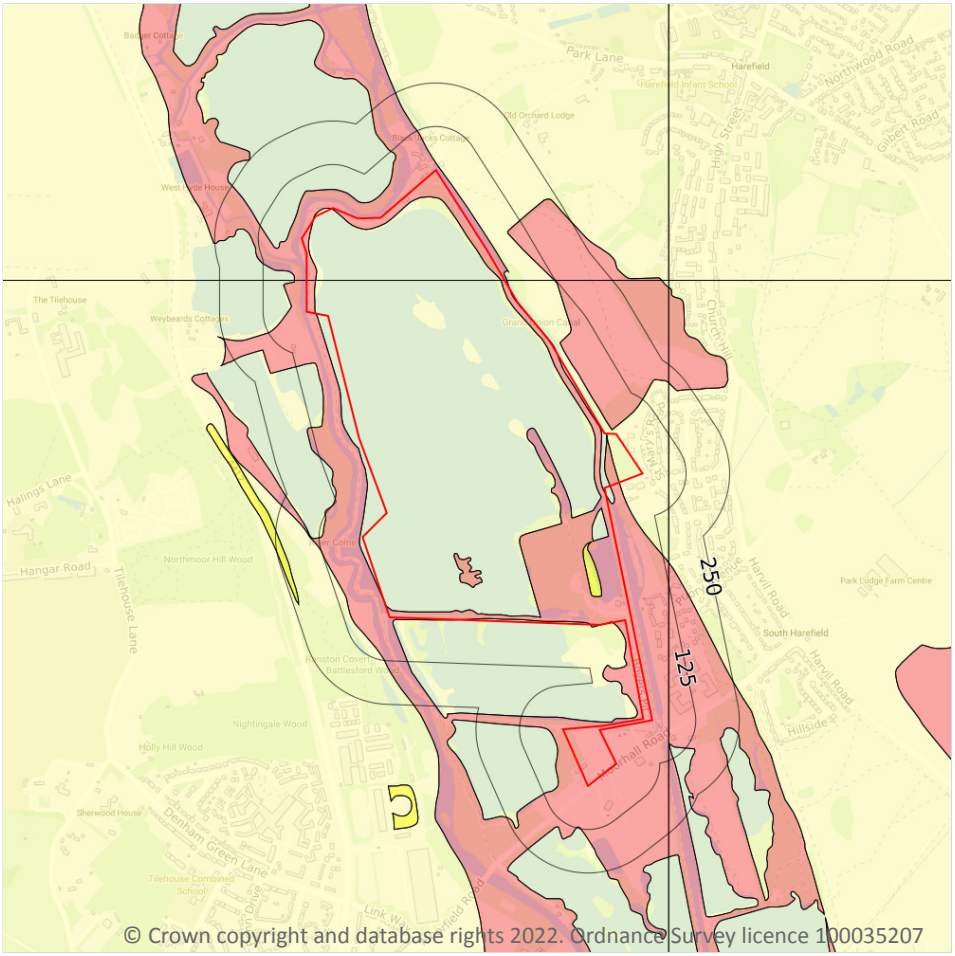
Features are displayed on the Natural ground subsidence - Running sands map on **page 139**

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.**
5m N	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
12m E	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
12m N	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.
34m S	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
35m NW	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
40m NW	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
48m SE	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	9

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.

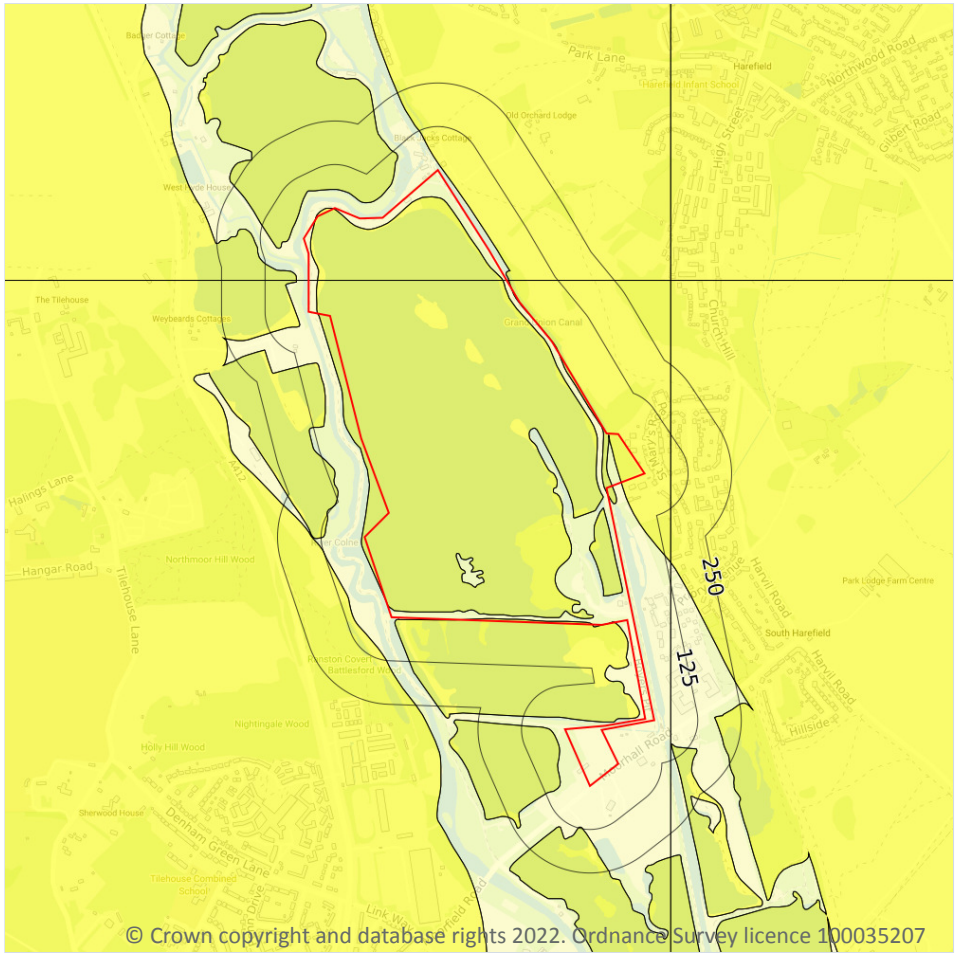
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 141**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

Location	Hazard rating	Details
On site	**Moderate**	**Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.**
5m N	Negligible	Compressible strata are not thought to occur.
12m E	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.
34m S	Negligible	Compressible strata are not thought to occur.
35m NW	Negligible	Compressible strata are not thought to occur.
40m NW	Negligible	Compressible strata are not thought to occur.
48m SE	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	7

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.

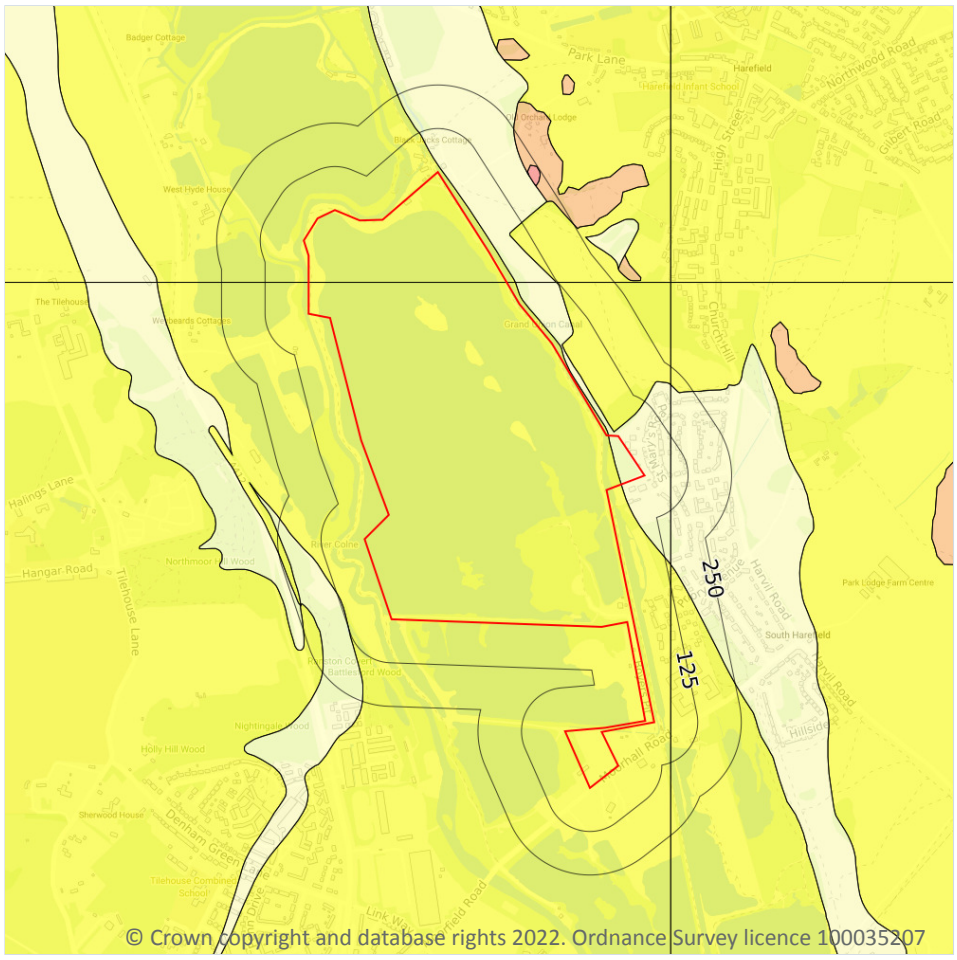
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 143**

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.**
5m N	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

Location	Hazard rating	Details
34m S	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
35m NW	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
40m NW	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
48m SE	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	5

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.

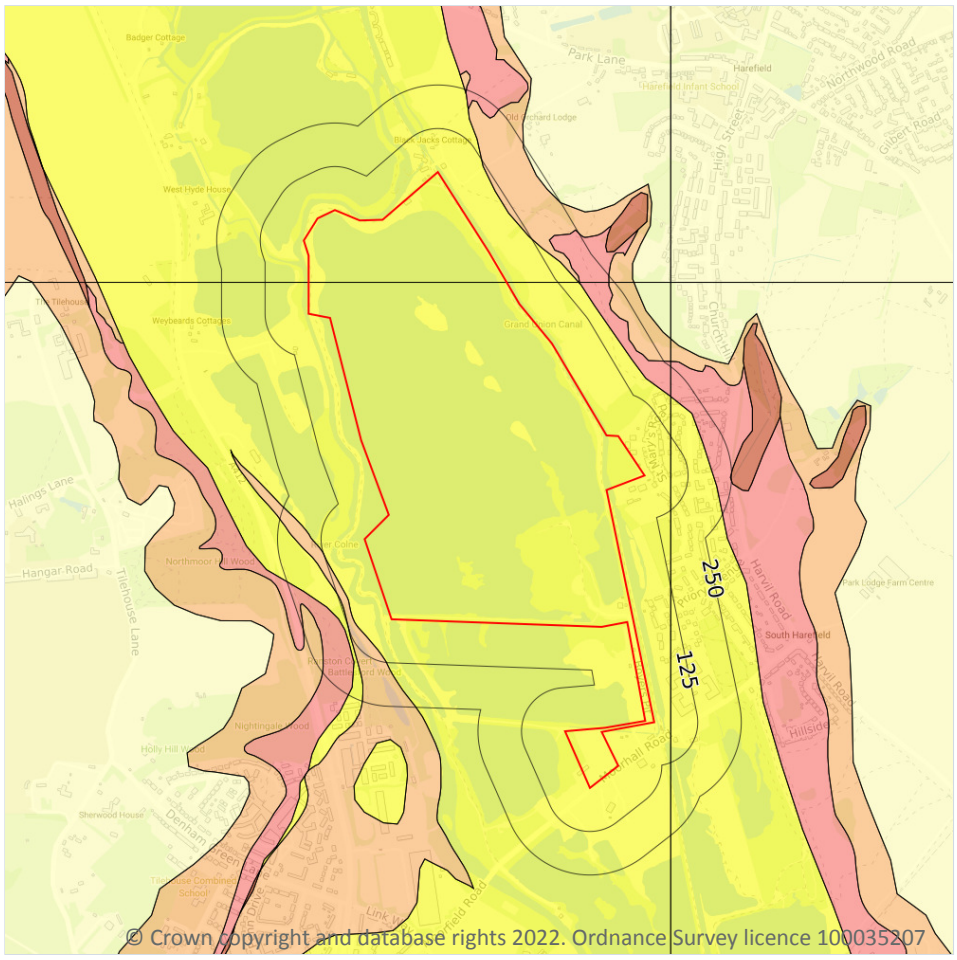
Features are displayed on the Natural ground subsidence - Landslides map on **page 145**

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

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.**
12m E	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.
12m N	Negligible	Slope instability problems are not thought to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.
48m SE	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.6 Ground dissolution of soluble rocks

Records within 50m	2

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.

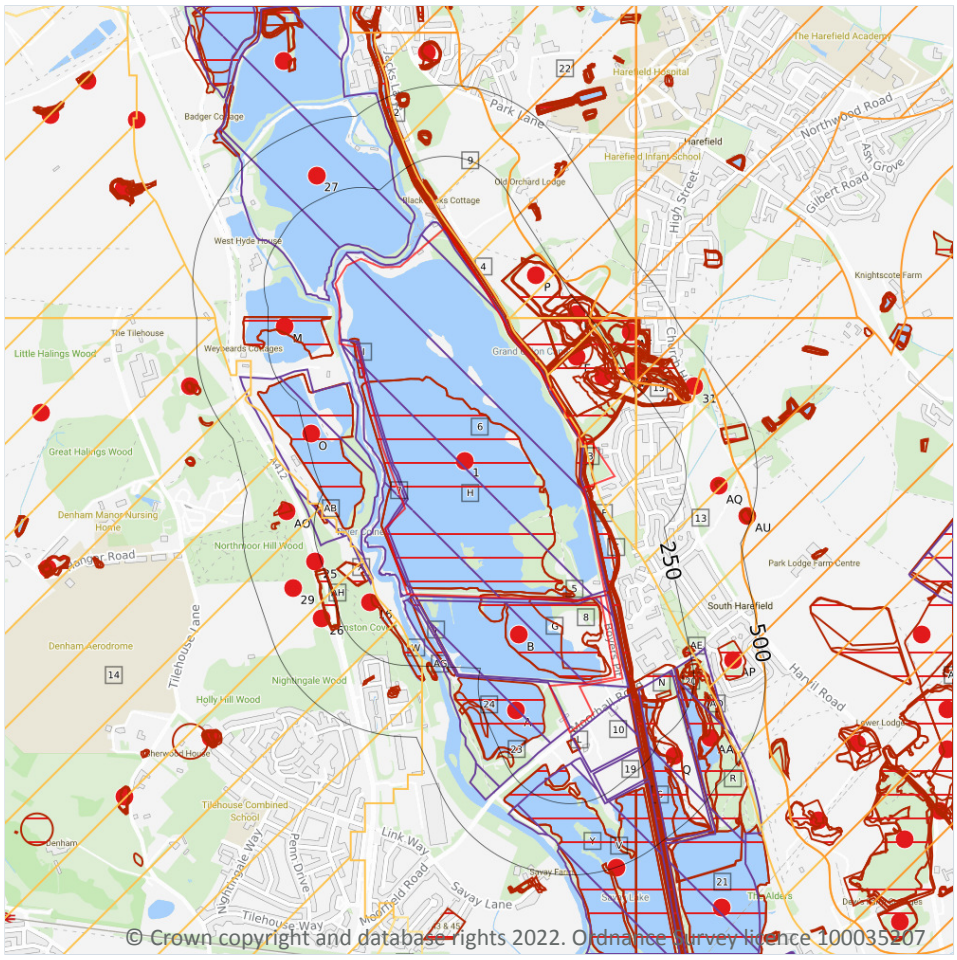
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 147**

Location	Hazard rating	Details
On site	**Very low**	**Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.**

Location	Hazard rating	Details
48m SE	Very low	Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18 Mining, ground workings and natural cavities



Site Outline

Search buffers in metres (m)

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

Non Coal Mining

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

18.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m	**23**

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, ground workings and natural cavities map on **page 149**

ID	Location	Details	Description
1	**On site**	**Name: Broadwater Farm Address: Harefield, UXBRIDGE, Middlesex 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**
B	128m S	Name: Harefield Pit Address: Harefield, Denham, UXBRIDGE, Middlesex 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
16	131m W	Name: Battlesford Wood Chalk Pit Address: Denham Green, UXBRIDGE, Middlesex Commodity: Chalk 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
E	133m NE	Name: Harefield Cement & Brick Works Address: Harefield, NORTHWOOD, Middlesex Commodity: Chalk 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
A	141m SW	Name: Harefield Pit Address: South Harefield, NORTHWOOD, Middlesex 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

ID	Location	Details	Description
E	176m NE	Name: Harefield Cement, Lime & Brick Works Address: HAREFIELD, Middlesex Commodity: Chalk 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
P	180m NE	Name: Harefield Cement, Lime & Brick Works Address: Harefield, NORTHWOOD, Middlesex Commodity: Chalk 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
M	190m W	Name: Broadwater Farm Gravel Pit Address: Denham Green, GERRARDS CROSS, Buckinghamshire 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
U	222m NE	Name: Harefield Cement, Lime & Brick Works Address: Harefield, NORTHWOOD, Middlesex Commodity: Chalk 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
O	231m W	Name: Broadwater Farm Gravel Pit Address: Denham Green, GERRARDS CROSS, Buckinghamshire 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
25	269m W	Name: Battlesford Wood Chalk Pit Address: Denham Green, UXBRIDGE, Middlesex Commodity: Chalk 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

ID	Location	Details	Description
Z	279m NE	Name: Harefield Cement, Lime & Brick Works Address: Harefield, NORTHWOOD, Middlesex Commodity: Clay & Shale 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
26	310m W	Name: Northmoor Hill Gravel Pit Address: Denham Green, UXBRIDGE, Middlesex 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
Q	321m SE	Name: Broadwater Lake Gravel Pit Address: South Harefield, NORTHWOOD, Middlesex 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
27	331m NW	Name: Troy Mill Gravel Pit Address: West Hyde, RICKMANSWORTH, Hertfordshire 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
AF	340m NE	Name: Harefield Cement, Lime & Brick Works Address: Harefield, NORTHWOOD, Middlesex Commodity: Clay & Shale 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
AO	351m W	Name: Northmoor Hill Wood Chalk Pit Address: Denham Green, UXBRIDGE, Middlesex Commodity: Chalk 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

ID	Location	Details	Description
AQ	365m E	Name: Harefield Place Pit Address: HAREFIELD, Middlesex Commodity: Chalk 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
AA	370m SE	Name: Broadwater Lake Gravel Pit Address: South Harefield, NORTHWOOD, Middlesex 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
29	373m W	Name: Northmoor Hill Wood Gravel Pit Address: Denham Green, UXBRIDGE, Middlesex 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
AP	393m E	Name: Lodge Farm Chalk Pit Address: Harefield, UXBRIDGE, Middlesex Commodity: Chalk 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
31	407m NE	Name: Harefield Pit Address: Harefield, UXBRIDGE, Middlesex Commodity: Chalk 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
AU	485m E	Name: Moorhall Dell Address: Harefield, UXBRIDGE, Middlesex Commodity: Chalk 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.

18.3 Surface ground workings

Records within 250m **115**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 149**

ID	Location	Land Use	Year of mapping	Mapping scale
2	On site	Canal	1970	1:10560
3	On site	Unspecified Wharf	1912	1:10560
4	On site	Canal	1960	1:10560
5	On site	Pond	1959	1:10560
C	On site	Canal	1865	1:10560
C	On site	Canal	1949	1:10560
C	On site	Canal	1934	1:10560
C	On site	Canal	1934	1:10560
C	On site	Canal	1912	1:10560
C	On site	Canal	1895	1:10560
C	On site	Canal	1898	1:10560
C	On site	Canal	1938	1:10560
C	On site	Canal	1897	1:10560
D	On site	Cement Lime and Brick Works	1898	1:10560
D	On site	Cement Lime and Brick Works	1897	1:10560
E	On site	Brick and Cement Works	1912	1:10560
E	On site	Cement Lime Brick and Tile Works	1900	1:10560
E	On site	Disused Cement and Brick Works	1949	1:10560
E	On site	Disused Cement and Brick Works	1934	1:10560
E	On site	Cement Lime Brick and Tile Works	1895	1:10560
F	On site	Canal	1959	1:10560
F	On site	Canal	1989	1:10000
F	On site	Canal	1974	1:10000

ID	Location	Land Use	Year of mapping	Mapping scale
G	**On site**	**Gravel Pit**	**1989**	**1:10000**
G	**On site**	**Gravel Pit**	**1974**	**1:10000**
H	**On site**	**Gravel Pit**	**1989**	**1:10000**
H	**On site**	**Gravel Pit**	**1974**	**1:10000**
I	**On site**	**Gravel Pit**	**1989**	**1:10000**
I	**On site**	**Gravel Pit**	**1974**	**1:10000**
8	1m S	Pond	1959	1:10560
J	4m S	Gravel Pit	1989	1:10000
J	4m S	Gravel Pit	1974	1:10000
K	13m E	Canal	1882	1:10560
E	19m NE	Refuse Heap	1989	1:10000
E	19m NE	Refuse Heap	1974	1:10000
L	27m SE	Reservoir	1989	1:10000
L	27m SE	Reservoir	1974	1:10000
M	32m W	Gravel Pit	1989	1:10000
M	32m W	Gravel Pit	1974	1:10000
A	35m SW	Gravel Pit	1989	1:10000
N	35m SE	Unspecified Wharf	1949	1:10560
N	35m SE	Unspecified Wharf	1934	1:10560
K	58m SE	Unspecified Wharf	1895	1:10560
K	58m SE	Unspecified Wharf	1882	1:10560
K	61m SE	Unspecified Wharf	1897	1:10560
K	63m SE	Unspecified Wharf	1865	1:10560
O	64m W	Gravel Pit	1989	1:10000
O	64m W	Gravel Pit	1974	1:10000
P	67m NE	Refuse Heap	1974	1:10000
P	67m NE	Refuse Heap	1987	1:10000
E	70m NE	Unspecified Quarry	1865	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
R	82m SE	Ponds	1959	1:10560
S	82m SE	Canal	1959	1:10560
S	82m SE	Canal	1987	1:10000
S	82m SE	Canal	1973	1:10000
T	82m SE	Pond	1987	1:10000
T	82m SE	Gravel Pit	1973	1:10000
R	82m SE	Ponds	1969	1:10560
D	87m NE	Ponds	1912	1:10560
K	87m SE	Unspecified Wharf	1912	1:10560
T	87m SE	Water Body	1949	1:10560
T	87m SE	Water Body	1934	1:10560
U	96m NE	Unspecified Ground Workings	1938	1:10560
P	99m NE	Disused Chalk Pit	1949	1:10560
P	99m NE	Disused Chalk Pit	1934	1:10560
P	101m NE	Disused Chalk Pit	1960	1:10560
P	102m NE	Disused Chalk Pit	1970	1:10560
W	102m SW	Pond	1989	1:10000
W	102m SW	Pond	1974	1:10000
X	108m W	Sewage Works	1949	1:10560
15	115m NE	Unspecified Ground Workings	1938	1:10560
X	116m W	Sewage Works	1989	1:10000
X	116m W	Sewage Works	1974	1:10000
Y	117m S	Gravel Pit	1989	1:10000
Y	117m S	Gravel Pit	1974	1:10000
Z	125m NE	Unspecified Pits	1912	1:10560
E	130m NE	Disused Chalk Pit	1949	1:10560
E	130m NE	Disused Chalk Pit	1934	1:10560
17	132m NE	Unspecified Pit	1959	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
N	132m SE	Unspecified Wharf	1938	1:10560
18	148m SW	Gravel Pit	1974	1:10000
S	151m S	Canal	1969	1:10560
E	167m NE	Unspecified Heap	1949	1:10560
E	167m NE	Unspecified Heap	1934	1:10560
E	172m NE	Unspecified Heap	1959	1:10560
E	180m NE	Unspecified Ground Workings	1897	1:10560
20	182m E	Unspecified Wharf	1959	1:10560
AA	199m E	Gravel Pit	1987	1:10000
AA	199m E	Gravel Pit	1973	1:10000
AB	205m W	Pond	1989	1:10000
AB	205m W	Pond	1974	1:10000
U	205m NE	Unspecified Heap	1959	1:10560
AC	209m NE	Unspecified Ground Workings	1959	1:10560
AC	211m NE	Disused Copper Workings	1987	1:10000
AC	211m NE	Refuse Heap	1973	1:10000
AC	213m NE	Unspecified Ground Workings	1969	1:10560
AD	214m E	Pond	1938	1:10560
23	217m SW	Refuse Heap	1959	1:10560
AD	221m E	Pond	1949	1:10560
AD	221m E	Pond	1934	1:10560
AE	226m E	Pond	1895	1:10560
Z	228m NE	Unspecified Pit	1900	1:10560
AE	232m E	Pond	1865	1:10560
AG	237m S	Pond	1882	1:10560
AF	239m NE	Unspecified Ground Workings	1949	1:10560
AF	239m NE	Unspecified Ground Workings	1934	1:10560
AG	242m S	Pond	1949	1:10560

ID	Location	Land Use	Year of mapping	Mapping scale
AG	242m S	Pond	1934	1:10560
AG	242m S	Pond	1912	1:10560
AH	243m W	Cuttings	1949	1:10560
AH	243m W	Cuttings	1938	1:10560
AH	244m W	Cuttings	1959	1:10560
AH	244m W	Cuttings	1989	1:10000
AH	244m W	Cuttings	1974	1:10000
24	247m W	Refuse Heap	1959	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m	**0**

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	**11**

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, ground workings and natural cavities map on **page 149**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
6	**On site**	**Broadwater Farm**	**Sand and gravel**	**Surface mineral working**	**Valid**	**30/6/48, 22/5/69**
7	**On site**	**Harefield Pit**	**Sand and gravel**	**Surface mineral working**	**Valid**	**30/6/48, 22/5/69**
A	**On site**	**Harefield Pit**	**Sand and gravel**	**Surface mineral working**	**Valid**	**30/6/48, 22/5/69**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
B	**On site**	**Harefield Pit**	**Sand and gravel**	**Surface mineral working**	**Valid**	**Not available**
10	14m SE	Moor	Sand and gravel	Surface mineral working	Refused	Not available
11	33m N	Troy Mill	Sand and gravel	Surface mineral working	Valid	30/8/54, 17/11/52
12	47m W	Not available	Sand and gravel	Surface mineral working	Application	Not available
Q	69m SE	Broadwater Lake	Sand and gravel	Surface mineral working	Valid	30/6/48, 22/10/51
V	97m S	Moorhall Road	Sand and gravel	Surface mineral working	Valid	30/6/48, 22/10/51
19	167m SE	Moor	Sand and gravel	Surface mineral working	Application	Not available
21	185m E	Broadwater Lake	Sand and gravel	Surface mineral working	Valid	Not available

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	**11**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 149**

ID	Location	Name	Commodity	Class	Likelihood
D	**On site**	**Not available**	**Chalk**	**B**	**Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered**
9	12m NE	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

ID	Location	Name	Commodity	Class	Likelihood
13	75m E	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
14	87m SW	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
22	215m NE	Not available	Chalk	C	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
AF	235m NE	Not available	Chalk	C	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
AI	264m NE	Not available	Chalk	C	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
30	383m NE	Not available	Chalk	C	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
32	435m W	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
34	683m N	Not available	Chalk	C	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
40	862m SW	Not available	Chalk	A	Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level where they need not be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site	0

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site	0

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

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

18.11 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

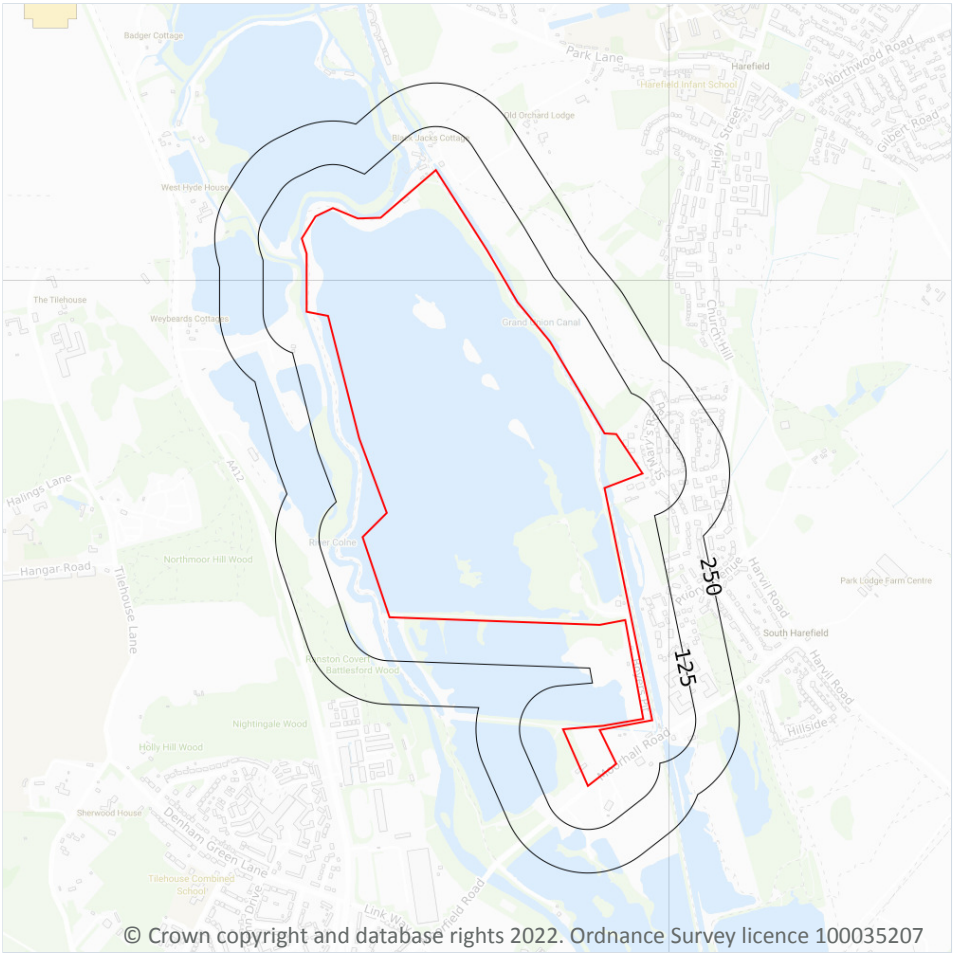
18.13 Clay mining

Records on site	0

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

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

19 Radon



Site Outline

Search buffers in metres (m)

Greater than 30%

Between 10% and 30%

Between 5% and 10%

Between 3% and 5%

Between 1% and 3%

Less than 1%

19.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 163**

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

This data is sourced from the British Geological Survey and Public Health England.

20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m **46**

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
On site	**No data**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**No data**	**No data**
5m N	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
6m SE	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
11m SE	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
12m N	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
12m W	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
20m N	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
22m S	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
22m S	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
32m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
32m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
34m S	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
35m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
35m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
40m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
45m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	40 - 60 mg/kg	15 - 30 mg/kg
48m SE	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
48m SE	No data	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	No data	No data
49m S	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m	**139**

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

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	10	1.8	86	59	0.6	69	36	31	8
On site	10	1.8	88	60	0.7	67	37	30	8
On site	10	1.8	80	55	0.7	67	35	30	7
On site	10	1.8	86	59	0.6	68	37	31	8
On site	11	1.9	92	63	0.7	65	38	30	9
On site	11	1.9	92	63	0.7	65	39	30	9
On site	11	1.9	90	62	0.7	61	37	28	9
On site	11	1.9	91	63	0.6	76	39	33	9
On site	11	1.9	88	60	0.7	64	37	29	9
On site	11	1.9	97	67	0.6	72	39	31	9
On site	11	1.9	94	65	0.6	77	40	33	10
On site	11	1.9	88	60	0.7	70	38	31	9
On site	11	1.9	97	67	0.6	70	39	31	10
On site	11	1.9	87	60	0.7	78	39	34	8
On site	11	1.9	113	78	0.7	67	42	29	11
On site	11	1.9	112	77	0.6	70	42	30	12
On site	11	1.9	86	59	0.6	81	40	35	8
On site	11	1.9	87	60	0.7	77	39	34	8
On site	11	1.9	94	65	0.7	74	40	32	9
On site	12	2.1	95	65	0.6	79	40	34	10
On site	12	2.1	100	69	0.6	79	39	33	9
On site	12	2.1	101	69	0.6	72	40	32	10
On site	12	2.1	98	67	0.7	72	40	32	10
On site	12	2.1	95	65	0.7	71	40	32	9
On site	12	2.1	98	67	0.6	80	41	34	10
On site	12	2.1	99	68	0.6	80	39	33	9
On site	12	2.1	102	70	0.6	80	40	33	10

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	12	2.1	102	70	0.6	74	40	32	10
On site	12	2.1	98	67	0.7	74	40	33	9
On site	12	2.1	94	65	0.7	74	40	33	9
On site	12	2.1	107	74	0.6	73	41	31	11
On site	12	2.1	101	69	0.6	79	41	34	11
On site	12	2.1	102	70	0.5	82	39	34	9
On site	12	2.1	105	72	0.5	81	40	34	10
On site	12	2.1	104	71	0.6	75	41	33	10
On site	12	2.1	98	67	0.6	76	40	33	9
On site	12	2.1	92	63	0.7	77	40	34	9
On site	12	2.1	123	85	0.7	67	43	29	12
On site	12	2.1	117	80	0.6	72	43	31	13
On site	12	2.1	101	69	0.6	76	41	33	10
On site	12	2.1	92	63	0.6	78	40	34	9
On site	12	2.1	111	76	0.6	75	41	32	11
On site	12	2.1	103	71	0.6	76	41	32	10
On site	13	2.3	103	71	0.5	82	42	35	11
On site	13	2.3	121	83	0.6	75	44	32	13
On site	13	2.3	110	76	0.5	82	43	34	12
On site	13	2.3	109	75	0.5	85	43	36	11
On site	13	2.3	106	73	0.5	84	40	34	10
On site	13	2.3	109	75	0.5	83	40	34	10
On site	13	2.3	108	74	0.6	77	41	33	10
On site	13	2.3	161	111	0.7	67	51	28	18
On site	13	2.3	156	107	0.7	67	51	28	19
On site	13	2.3	149	102	0.6	72	50	29	19
On site	13	2.3	143	98	0.6	74	49	31	18

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	13	2.3	115	79	0.6	78	41	32	11
On site	13	2.3	140	96	0.6	76	45	30	14
On site	14	2.5	138	95	0.6	78	48	32	16
On site	14	2.5	119	82	0.5	86	45	35	13
On site	14	2.5	114	78	0.5	90	44	37	12
On site	14	2.5	132	91	0.5	86	45	34	14
On site	14	2.5	208	143	0.7	68	63	27	35
On site	14	2.5	193	133	0.6	72	60	29	31
On site	14	2.5	170	117	0.6	76	55	30	24
On site	14	2.5	135	93	0.5	82	45	32	13
On site	14	2.5	157	108	0.6	67	48	25	19
On site	15	2.6	137	94	0.5	89	46	35	14
On site	15	2.6	204	140	0.7	68	61	27	32
On site	15	2.6	152	104	0.5	81	50	33	19
On site	15	2.6	141	97	0.5	87	47	34	16
On site	15	2.6	130	89	0.4	89	44	35	12
On site	15	2.6	255	175	0.7	69	73	26	57
On site	15	2.6	261	179	0.7	69	75	26	61
On site	15	2.6	231	159	0.6	72	68	28	46
On site	15	2.6	170	117	0.5	76	55	29	27
On site	15	2.6	140	96	0.5	83	48	32	18
On site	15	2.6	188	129	0.6	68	57	26	29
On site	15	2.6	236	162	0.6	68	68	25	50
On site	15	2.6	241	166	0.6	68	69	25	53
On site	15	2.6	203	139	0.6	71	59	26	37
On site	15	2.6	162	111	0.5	76	50	28	23
On site	15	2.6	127	87	0.4	86	42	31	14

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	15	2.6	142	98	0.6	67	46	26	15
On site	15	2.6	113	78	0.5	83	38	30	11
On site	16	2.8	139	95	0.4	95	46	37	15
On site	16	2.8	134	92	0.4	95	45	37	13
On site	16	2.8	159	109	0.7	67	50	28	14
On site	16	2.8	126	87	0.4	94	43	35	13
On site	16	2.8	119	82	0.4	98	40	38	10
On site	16	2.8	141	97	0.7	67	51	28	11
On site	16	2.8	134	92	0.7	67	48	29	11
On site	16	2.8	136	93	0.7	67	49	29	12
On site	16	2.8	281	193	0.7	69	79	26	72
On site	16	2.8	281	193	0.6	69	79	26	73
On site	16	2.8	233	160	0.6	71	68	27	49
On site	16	2.8	182	125	0.5	76	57	29	29
On site	16	2.8	139	95	0.5	86	45	32	16
On site	16	2.8	132	91	0.7	67	47	28	10
On site	16	2.8	154	106	0.7	67	51	28	16
On site	16	2.8	133	91	0.7	67	46	28	12
On site	17	3	129	89	0.4	101	43	38	12
On site	17	3	114	78	0.4	104	39	40	9
On site	17	3	120	82	0.4	98	41	37	11
On site	17	3	129	89	0.7	67	48	29	11
On site	17	3	130	89	0.7	67	48	29	11
On site	17	3	114	78	0.4	100	40	37	10
On site	18	3.2	119	82	0.3	110	41	42	10
On site	18	3.2	114	78	0.3	114	40	44	9
On site	9	1.6	68	47	0.7	67	33	31	6

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	**9**	**1.6**	**65**	**45**	**0.7**	**67**	**32**	**31**	**6**
On site	**9**	**1.6**	**73**	**50**	**0.6**	**67**	**34**	**31**	**7**
1m S	16	2.8	152	104	0.8	67	51	28	12
1m SE	14	2.5	170	117	0.6	67	51	25	24
3m NE	15	2.6	140	96	0.5	85	45	33	13
7m E	18	3.2	110	76	0.3	114	39	44	9
8m N	11	1.9	87	60	0.7	74	39	33	8
9m NW	11	1.9	88	60	0.7	60	37	28	9
10m E	16	2.8	108	74	0.4	95	37	35	9
11m SE	16	2.8	224	154	0.7	68	65	26	39
15m SE	15	2.6	212	146	0.7	68	63	27	33
18m S	15	2.6	188	129	0.7	67	56	27	22
21m SW	9	1.6	72	49	0.7	67	34	31	7
22m SE	14	2.5	168	115	0.6	67	51	24	25
22m S	14	2.5	169	116	0.7	66	49	28	15
23m NE	18	3.2	120	82	0.3	107	41	41	10
25m S	13	2.3	150	103	0.8	66	45	28	12
26m N	13	2.3	135	93	0.6	70	43	28	14
27m W	11	1.9	93	64	0.6	71	38	31	9
27m SE	16	2.8	125	86	0.7	65	45	27	11
29m S	12	2.1	119	82	0.7	66	41	29	10
33m S	10	1.8	92	63	0.7	66	37	30	8
34m E	14	2.5	133	91	0.5	74	42	27	15
40m SW	9	1.6	66	45	0.7	67	32	31	6
41m SW	10	1.8	83	57	0.6	69	36	31	8
42m S	15	2.6	152	104	0.8	67	52	28	12
42m SE	14	2.5	149	102	0.5	71	46	25	20

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
46m NW	11	1.9	91	63	0.8	62	38	30	9
48m SE	14	2.5	136	93	0.6	67	42	25	13
49m S	15	2.6	138	95	0.8	68	52	27	10
49m N	11	1.9	95	65	0.7	71	39	31	9

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

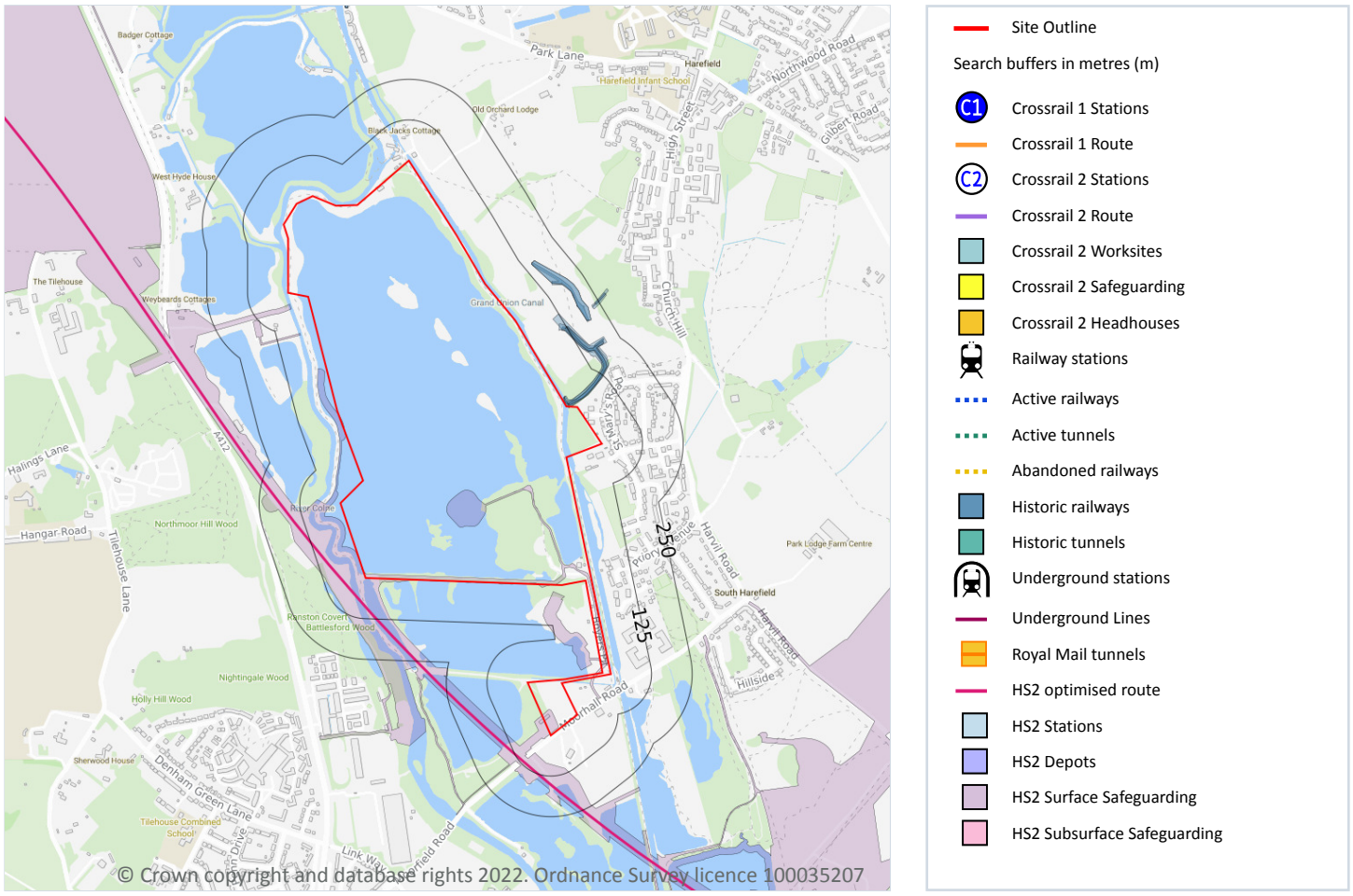
Records within 50m	**3**

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

Location	Arsenic (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Lead (mg/kg)	Tin (mg/kg)	Sample Type
On site	**11.3**	**0.6**	**81.6**	**39.7**	**35.5**	**85.6**	**7.9**	**Topsoil**
On site	**15.8**	**0.6**	**69.0**	**80.5**	**25.7**	**289.1**	**78.2**	**Topsoil**
12m SE	16.7	0.7	67.0	47.5	29.1	126.8	10.3	Topsoil

This data is sourced from the British Geological Survey.

21 Railway infrastructure and projects



21.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	14

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 173**

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1899**	**2500**
On site	**Railway Sidings**	**1895**	**10560**
On site	**Railway Sidings**	**1897**	**10560**
3m NE	Railway Sidings	1896	2500
4m NE	Railway Sidings	1900	10560
5m N	Railway Sidings	1898	10560
7m NE	Railway Sidings	1899	2500
148m NE	Tramway Sidings	1938	10560
149m NE	Tramway Sidings	1934	2500
149m NE	Tramway Sidings	1949	10560
149m NE	Tramway Sidings	1934	10560
225m NE	Tramway Sidings	1938	10560
226m NE	Tramway Sidings	1934	2500
237m NE	Railway Sidings	1959	10560

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m	3

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.

Features are displayed on the Railway infrastructure and projects map on **page 173**

Location	Track Type	Speed (mph)	Speed (km/h)	Status
59m SW	Bridge/Viaduct	186mph	300kph	Current preferred consultation route
252m W	Bridge/Viaduct	224mph	360kph	Current preferred consultation route
481m W	Surface Running Track	224mph	360kph	Current preferred consultation route

This data is sourced from HS2 ltd.

Data providers

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

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