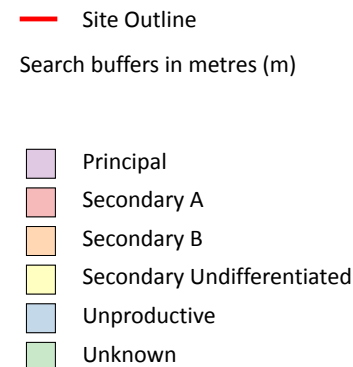
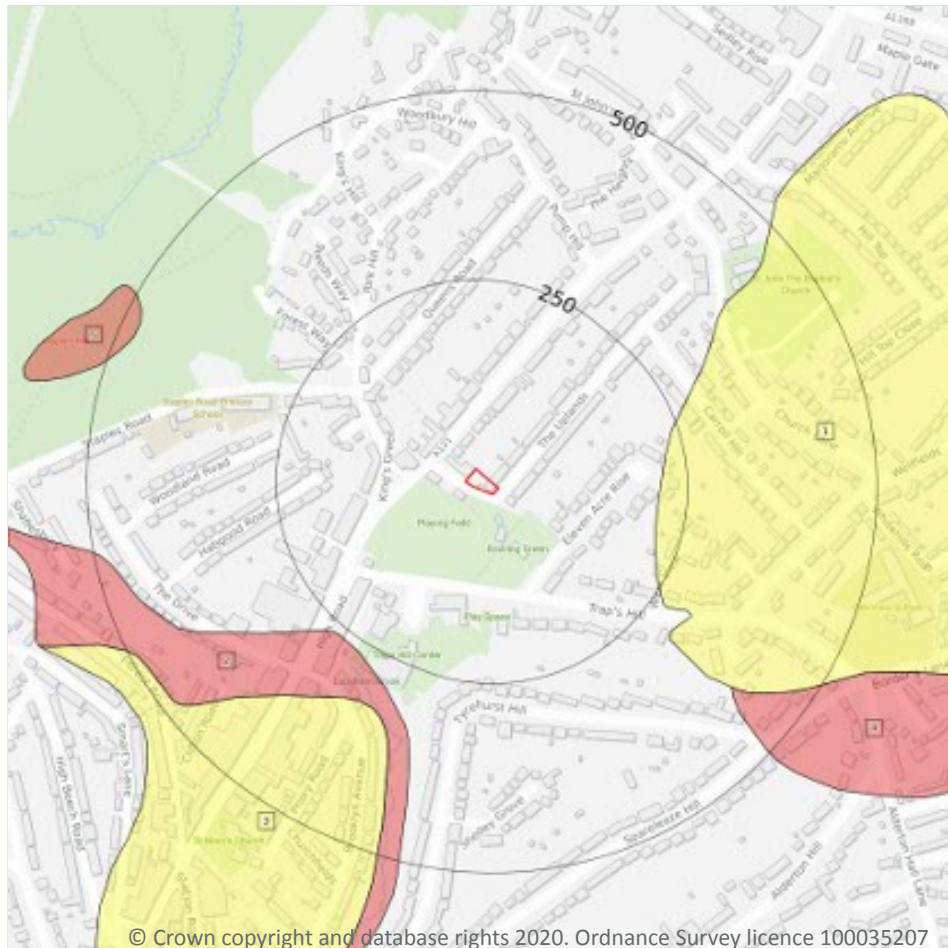


5 Hydrogeology - Superficial aquifer



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5.1 Superficial aquifer

Records within 500m

5

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 31**

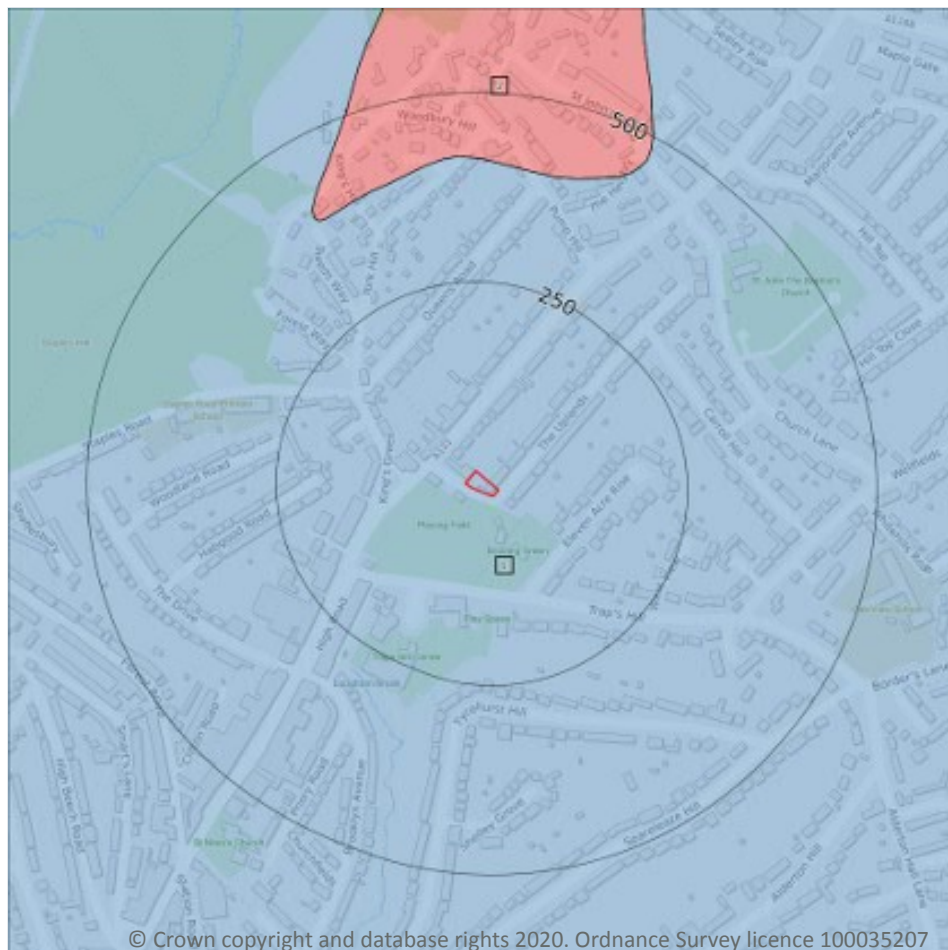
| ID | Location | Designation | Description |
|----|----------|----------------------------|---|
| 1 | 212m E | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |
| 2 | 262m SW | Secondary A | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |

| ID | Location | Designation | Description |
|----|----------|----------------------------|---|
| 3 | 321m SW | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |
| 4 | 405m SE | Secondary A | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |
| 5 | 477m NW | Secondary A | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |

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



Bedrock aquifer



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

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5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

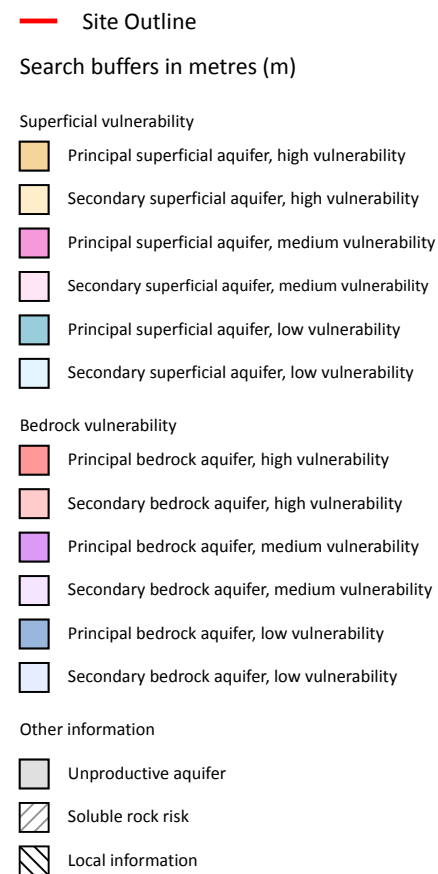
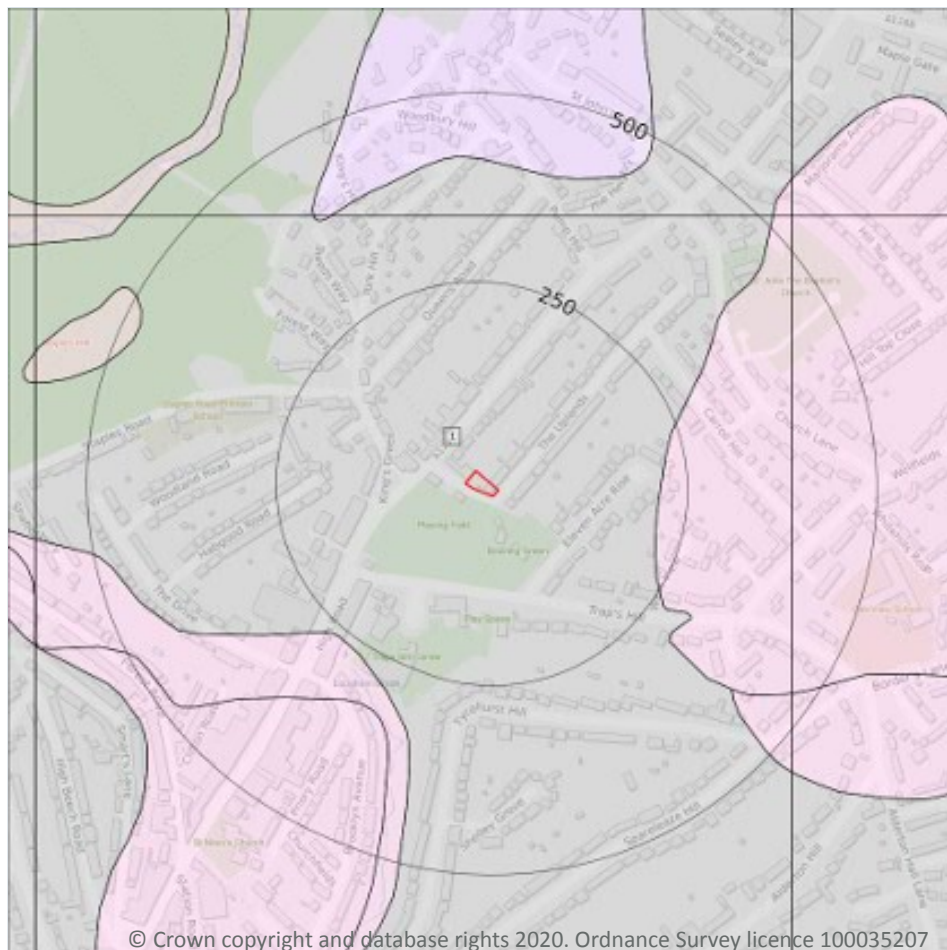
Features are displayed on the Bedrock aquifer map on **page 33**

| ID | Location | Designation | Description |
|----|----------|--------------|--|
| 1 | On site | Unproductive | These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow |
| 2 | 388m NW | Secondary A | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

1

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

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

Features are displayed on the Groundwater vulnerability map on **page 34**



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

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

Records on site

0

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

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

Abstractions and Source Protection Zones

5.6 Groundwater abstractions

Records within 2000m

0

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

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

5.7 Surface water abstractions

Records within 2000m

0

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

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

5.8 Potable abstractions

Records within 2000m

0

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

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

5.9 Source Protection Zones

Records within 500m

0

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

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



5.10 Source Protection Zones (confined aquifer)

Records within 500m

0

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

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

0

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

0

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.



This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 38**

| ID | Location | Type | Water body catchment | Water body ID | Operational catchment | Management catchment |
|----|----------|--------------------|-----------------------------------|----------------|------------------------------|------------------------------|
| 1 | On site | River WB catchment | Lower Roding (Loughton to Thames) | GB106037028181 | Roding, Beam and Ingrebourne | Roding, Beam and Ingrebourne |

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

6.4 WFD Surface water bodies

Records identified

1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 38**

| ID | Location | Type | Name | Water body ID | Overall rating | Chemical rating | Ecological rating | Year |
|----|----------|-------|-----------------------------------|--------------------------------|----------------|-----------------|-------------------|------|
| - | 1477m SE | River | Lower Roding (Loughton to Thames) | GB106037028181 | Moderate | Good | Moderate | 2016 |

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



6.5 WFD Groundwater bodies

| Records on site |
|-----------------|
|-----------------|

| 0 |
|---|
|---|

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

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



7 River and coastal flooding

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

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

7.2 Historical Flood Events

Records within 250m

0

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

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

7.3 Flood Defences

Records within 250m

0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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



7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

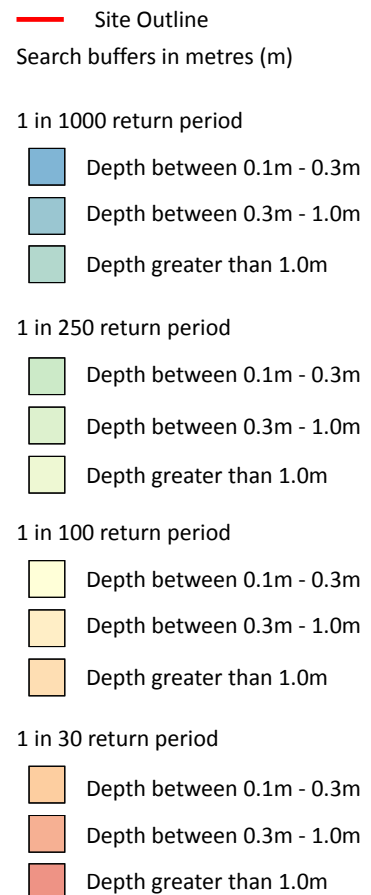
Records within 50m

0

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

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

8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

Negligible

Highest risk within 50m

1 in 1000 year, 0.1m - 0.3m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 44**

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

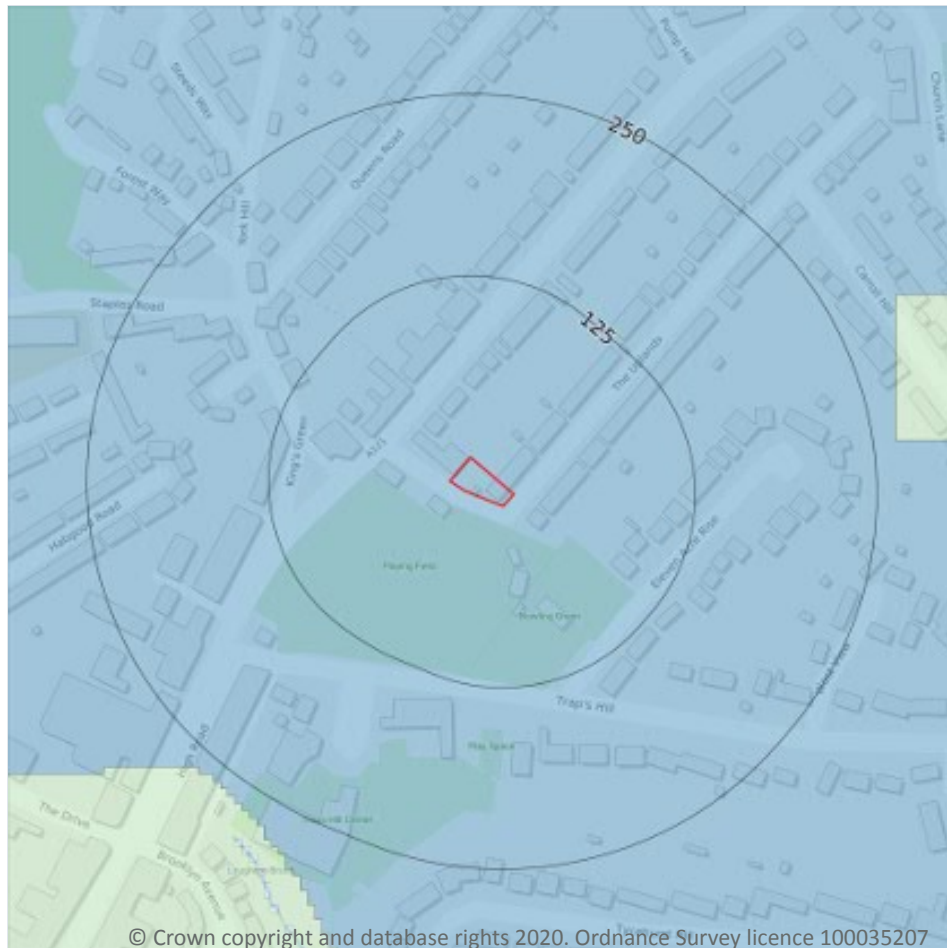
The table below shows the maximum flood depths for a range of return periods for the site.

| Return period | Maximum modelled depth |
|----------------|------------------------|
| 1 in 1000 year | Negligible |
| 1 in 250 year | Negligible |
| 1 in 100 year | Negligible |
| 1 in 30 year | Negligible |

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site

Negligible

Highest risk within 50m

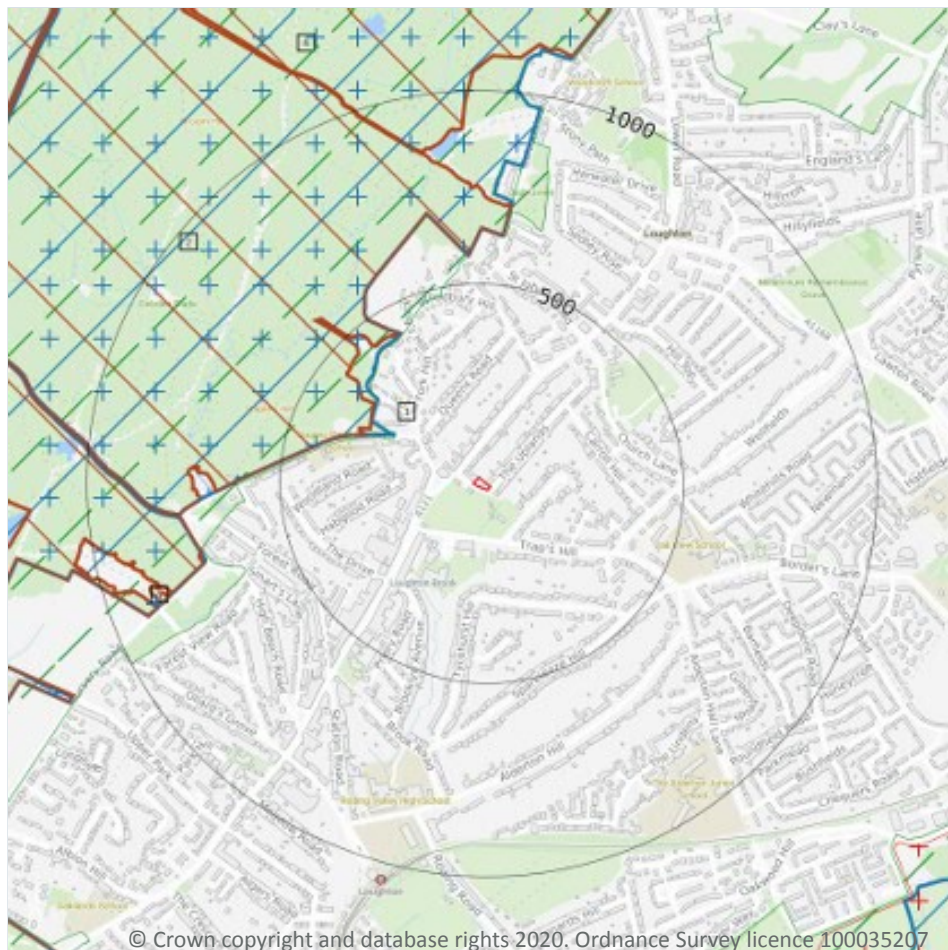
Negligible

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

Features are displayed on the Groundwater flooding map on **page 46**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- Special Areas of Conservation (SAC)
- Local Nature Reserves (LNR)
- Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

9

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 47**

| ID | Location | Name | Data source |
|----|----------|---------------|-----------------|
| A | 241m NW | Epping Forest | Natural England |



| ID | Location | Name | Data source |
|----|----------|-----------------------|-----------------|
| B | 721m W | Epping Forest | Natural England |
| 7 | 1473m SE | Roding Valley Meadows | Natural England |
| - | 1485m W | Epping Forest | Natural England |
| E | 1490m NW | Epping Forest | Natural England |
| - | 1586m N | Epping Forest | Natural England |
| G | 1625m SW | Epping Forest | Natural England |
| - | 1667m W | Epping Forest | Natural England |
| - | 1832m NW | Epping Forest | 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

8

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.

Features are displayed on the Environmental designations map on **page 47**

| ID | Location | Name | Features of interest | Habitat description | Data source |
|----|----------|---------------|--|--|-----------------|
| A | 241m NW | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |



| ID | Location | Name | Features of interest | Habitat description | Data source |
|----|----------|---------------|--|--|-----------------|
| B | 721m W | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |
| - | 1485m W | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |
| E | 1490m NW | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |
| - | 1586m N | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |
| G | 1625m SW | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |
| - | 1667m W | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |
| - | 1832m NW | Epping Forest | Wet heathland with cross-leaved heath; Dry heaths; Beech forests on acid soils; Great crested newt; Stag beetle. | Bogs, Marshes, Water fringed vegetation, Fens; Broad-leaved deciduous woodland; Inland water bodies (Standing water, Running water); Heath, Scrub, Maquis and Garrigue, Phygrana; Dry grassland, Steppes | Natural England |

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



10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m**2**

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 47**

| ID | Location | Name | Data source |
|----|----------|-----------------------|-----------------|
| 6 | 1398m SE | Roding Valley Meadows | Natural England |
| 9 | 1646m NE | Home Mead | Natural England |

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

10.7 Designated Ancient Woodland

Records within 2000m**12**

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 47**

| ID | Location | Name | Woodland Type |
|----|----------|-------------------------|---------------------------------|
| 2 | 303m NW | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| 3 | 726m W | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| 4 | 838m W | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| 5 | 856m N | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| - | 1483m W | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| D | 1490m W | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| - | 1595m N | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| - | 1667m W | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| - | 1678m NW | Epping-Ambresbury Banks | Ancient Replanted Woodland |
| - | 1734m W | Epping-Ambresbury Banks | Ancient & Semi-Natural Woodland |
| - | 1808m SW | Unknown | Ancient & Semi-Natural Woodland |
| - | 1986m NW | Epping-Ambresbury Banks | Ancient Replanted 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

1

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

Features are displayed on the Environmental designations map on **page 47**

| ID | Location | Name | Local Authority name |
|----|----------|-------------|----------------------|
| 1 | 237m NW | London area | Epping Forest |

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

6

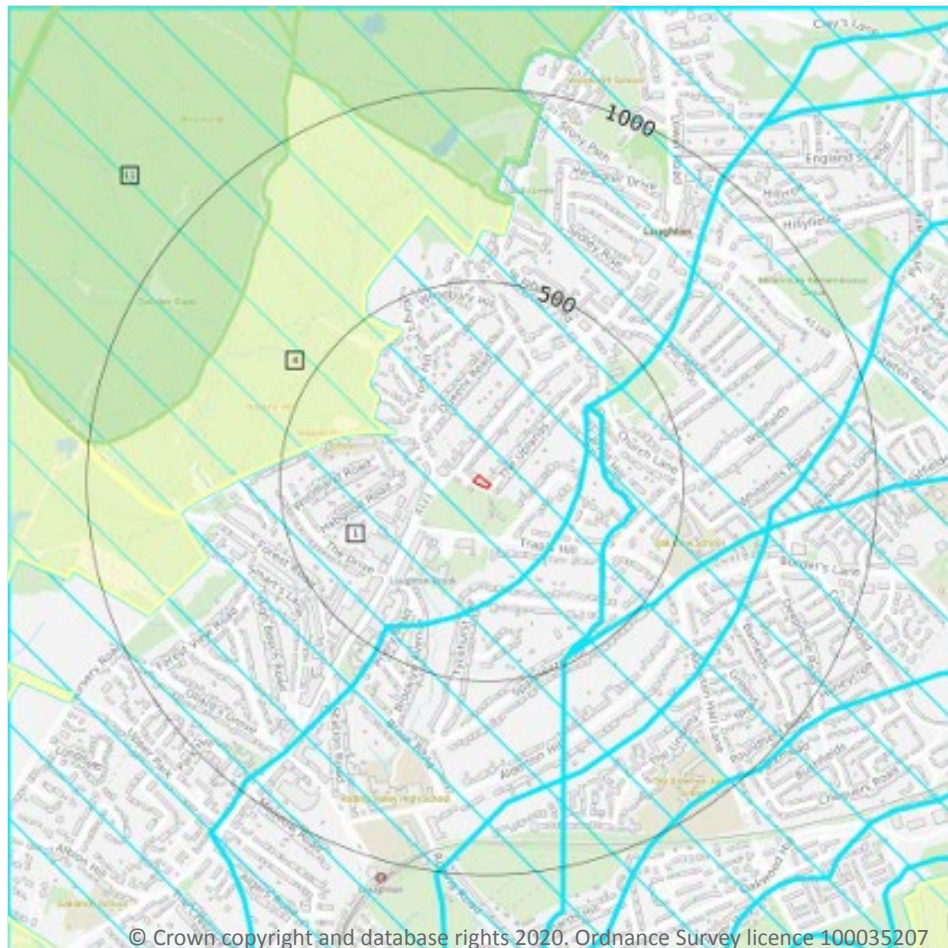
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

| Location | Name | Type | NVZ ID | Status |
|----------------|--|----------------------|-------------|-----------------|
| On site | Roding (Cripsey Brook to Loxford Water) NVZ | Surface Water | S441 | Existing |
| 647m S | Roding (Cripsey Brook to Loxford Water) NVZ | Surface Water | S441 | Existing |
| 727m NW | LEE NVZ | Surface Water | S443 | Existing |
| 1174m SW | LEE NVZ | Surface Water | S443 | Existing |
| 1480m NE | Roding (Cripsey Brook to Loxford Water) NVZ | Surface Water | S441 | Existing |
| 1618m SE | Roding (Cripsey Brook to Loxford Water) NVZ | Surface Water | S441 | Existing |

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



SSSI Impact Zones and Units



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

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 54**

| ID | Location | Type of developments requiring consultation |
|----|----------|---|
| 1 | On site | <p>All applications - All Planning Applications - Except Householder Applications.</p> <p>Notes: For new residential development in this area an HRA is required on the likely significant effects of recreation on Epping Forest SAC. For developments within 3km of the SAC, financial contributions are expected to offset recreational impacts.</p> |

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

21

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 54**

ID: 4
 Location: 241m NW
 SSSI name: Epping Forest
 Unit name: Loughton Brook & Staples Hill
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Amphibian assemblage | - | - |
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 25/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 11/11/2009 |
| H4030 European dry heaths | - | - |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 25/01/2010 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage F1 unshaded early successional mosaic | Favourable | 09/11/2009 |
| Invert. assemblage W1 flowing water | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland dry heath | - | - |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 25/01/2010 |



| Feature name | Feature condition | Date of assessment |
|-----------------------------|-------------------|--------------------|
| Population of veteran trees | - | - |

ID: 7
 Location: 706m N
 SSSI name: Epping Forest
 Unit name: Blackweir Hill & Goldings Hill
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Amphibian assemblage | Not Recorded | 01/01/1900 |
| Assemblages of breeding birds - Woodland | Not Recorded | 01/01/1900 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 18/11/2009 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 18/11/2009 |
| Outstanding dragonfly assemblage | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |

ID: 9
 Location: 721m W
 SSSI name: Epping Forest
 Unit name: Strawberry Hill
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:



| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Amphibian assemblage | Unfavourable - Recovering | 25/01/2010 |
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 25/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H4030 European dry heaths | Unfavourable - Recovering | 25/01/2010 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 25/01/2010 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage F001 scrub edge | Favourable | 09/11/2009 |
| Invert. assemblage F1 unshaded early successional mosaic | Favourable | 09/11/2009 |
| Invert. assemblage F112 open short sward | Favourable | 09/11/2009 |
| Invert. assemblage F3 shaded field and ground layer | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | Unfavourable - Recovering | 25/01/2010 |
| Lowland dry acid grassland (U4) | - | - |
| Lowland dry heath | Unfavourable - Recovering | 25/01/2010 |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 25/01/2010 |
| Outstanding dragonfly assemblage | - | - |
| Population of Schedule 5 beetle - Lucanus cervus, Stag Beetle | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |
| S1083 Stag beetle, Lucanus cervus | Favourable | 18/11/2009 |

ID: 11
 Location: 749m NW
 SSSI name: Epping Forest
 Unit name: Loughton Camp & Debden Slade
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:



| Feature name | Feature condition | Date of assessment |
|---|-------------------|--------------------|
| Assemblages of breeding birds - Woodland | Not Recorded | 01/01/1900 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H4030 European dry heaths | - | - |
| H9120 Atlantic acidophilous beech forests with Ilex | Favourable | 18/11/2009 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage W1 flowing water | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland dry heath | - | - |
| Lowland mixed deciduous woodland | Favourable | 09/11/2009 |
| Population of Schedule 8 moss - Zygodon forsteri, Knothole Moss | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |

ID: 15
 Location: 1222m NW
 SSSI name: Epping Forest
 Unit name: Great Monk Wood
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|-------------------|--------------------|
| Amphibian assemblage | - | - |
| Assemblages of breeding birds - Woodland | Not Recorded | 01/01/1900 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | Favourable | 12/11/2009 |



| Feature name | Feature condition | Date of assessment |
|---|-------------------|--------------------|
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Lowland mixed deciduous woodland | Favourable | 09/11/2009 |
| Outstanding dragonfly assemblage | - | - |
| Population of Schedule 8 moss - Zygodon forsteri, Knothole Moss | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |

ID: 18
 Location: 1473m SE
 SSSI name: Roding Valley Meadows
 Unit name: Further River Mead
 Broad habitat: Neutral Grassland - Lowland
 Condition: Unfavourable - No change
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---------------------------------|--------------------------|--------------------|
| Lowland neutral grassland (MG4) | Unfavourable - No change | 09/08/2011 |

ID: -
 Location: 1485m W
 SSSI name: Epping Forest
 Unit name: Hill Wood & Bomb Crater Pond
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 25/01/2010 |
| Bryophyte assemblage | Unfavourable - Recovering | 25/01/2010 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 25/01/2010 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |

| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 25/01/2010 |
| Population of veteran trees | - | - |

ID: 21
 Location: 1490m NW
 SSSI name: Epping Forest
 Unit name: Paul's Nursery & Up-And-Down Ride
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Amphibian assemblage | Not Recorded | 01/01/1900 |
| Assemblages of breeding birds - Woodland | Not Recorded | 01/01/1900 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 25/01/2010 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 25/01/2010 |
| Outstanding dragonfly assemblage | Favourable | 09/11/2009 |

| Feature name | Feature condition | Date of assessment |
|-----------------------------|-------------------|--------------------|
| Population of veteran trees | - | - |

ID: -
 Location: 1493m W
 SSSI name: Epping Forest
 Unit name: Fairmead, Whitehouse & Almshouse Plains
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|-------------------|--------------------|
| Amphibian assemblage | Favourable | 25/01/2010 |
| Assemblages of breeding birds - Woodland | Favourable | 25/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | - | - |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage F001 scrub edge | Favourable | 09/11/2009 |
| Invert. assemblage F1 unshaded early successional mosaic | Favourable | 09/11/2009 |
| Invert. assemblage F112 open short sward | Favourable | 09/11/2009 |
| Invert. assemblage F3 shaded field and ground layer | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland mixed deciduous woodland | Favourable | 09/11/2009 |
| Outstanding dragonfly assemblage | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |

ID: A
 Location: 1513m SE
 SSSI name: Roding Valley Meadows
 Unit name: Great Horseley Mead
 Broad habitat: Neutral Grassland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---------------------------------|---------------------------|--------------------|
| Lowland neutral grassland (MG4) | Unfavourable - Recovering | 09/08/2011 |

ID: -
 Location: 1543m SE
 SSSI name: Roding Valley Meadows
 Unit name: Hither River Mead
 Broad habitat: Neutral Grassland - Lowland
 Condition: Unfavourable - No change
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---------------------------------|--------------------------|--------------------|
| Lowland neutral grassland (MG4) | Unfavourable - No change | 09/08/2011 |

ID: -
 Location: 1586m N
 SSSI name: Epping Forest
 Unit name: Tipa Burn, Jack's Hill & Furze Ground
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - No change
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 25/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H4010 Northern Atlantic wet heaths with Erica tetralix | - | - |
| H4030 European dry heaths | Unfavourable - No change | 25/01/2010 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 25/01/2010 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |

| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage W1 flowing water | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland dry heath | Unfavourable - No change | 25/01/2010 |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 25/01/2010 |
| Lowland wet heath | - | - |
| Population of veteran trees | - | - |

ID: 26
 Location: 1625m SW
 SSSI name: Epping Forest
 Unit name: Warren Hill & Powell's Forest
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 25/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H4030 European dry heaths | Unfavourable - Recovering | 25/01/2010 |
| H9120 Atlantic acidophilous beech forests with Ilex | - | - |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage F1 unshaded early successional mosaic | Favourable | 09/11/2009 |
| Lowland dry acid grassland (U1b,c,d,f) | Unfavourable - Recovering | 25/01/2010 |



| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Lowland dry acid grassland (U4) | - | - |
| Lowland dry heath | Unfavourable - Recovering | 25/01/2010 |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 25/01/2010 |
| Population of Schedule 5 beetle - Lucanus cervus, Stag Beetle | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |
| S1083 Stag beetle, Lucanus cervus | Favourable | 25/01/2010 |

ID: -
 Location: 1629m SE
 SSSI name: Roding Valley Meadows
 Unit name: Lower Mead
 Broad habitat: Neutral Grassland - Lowland
 Condition: Favourable
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---------------------------------|-------------------|--------------------|
| Lowland neutral grassland (MG5) | Favourable | 09/08/2011 |

ID: -
 Location: 1667m W
 SSSI name: Epping Forest
 Unit name: Hill Wood & Bomb Crater Pond
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 25/01/2010 |
| Bryophyte assemblage | Unfavourable - Recovering | 25/01/2010 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 25/01/2010 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |

| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 25/01/2010 |
| Population of veteran trees | - | - |

ID: -
 Location: 1689m W
 SSSI name: Epping Forest
 Unit name: Fairmead, Whitehouse & Almshouse Plains
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|-------------------|--------------------|
| Amphibian assemblage | Favourable | 25/01/2010 |
| Assemblages of breeding birds - Woodland | Favourable | 25/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | - | - |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage F001 scrub edge | Favourable | 09/11/2009 |
| Invert. assemblage F1 unshaded early successional mosaic | Favourable | 09/11/2009 |
| Invert. assemblage F112 open short sward | Favourable | 09/11/2009 |
| Invert. assemblage F3 shaded field and ground layer | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |



| Feature name | Feature condition | Date of assessment |
|----------------------------------|-------------------|--------------------|
| Lowland mixed deciduous woodland | Favourable | 09/11/2009 |
| Outstanding dragonfly assemblage | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |

ID: -
 Location: 1740m W
 SSSI name: Epping Forest
 Unit name: Bury Wood
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|--------------------------|--------------------|
| Amphibian assemblage | - | - |
| Assemblages of breeding birds - Woodland | Not Recorded | 01/01/1900 |
| Bryophyte assemblage | Unfavourable - No change | 18/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | - | - |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage F1 unshaded early successional mosaic | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland mixed deciduous woodland | Favourable | 09/11/2009 |
| Outstanding dragonfly assemblage | - | - |
| Population of veteran trees | - | - |

ID: -
 Location: 1820m NW
 SSSI name: Epping Forest
 Unit name: Wake Valley & Sunshine Plain
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland



Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Amphibian assemblage | Unfavourable - Recovering | 25/01/2010 |
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 25/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H4010 Northern Atlantic wet heaths with Erica tetralix | Unfavourable - Recovering | 12/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 12/11/2009 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage F003 scrub-heath & moorland | Favourable | 09/11/2009 |
| Invert. assemblage F1 unshaded early successional mosaic | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Invert. assemblage W312 sphagnum bog | - | - |
| Lowland mixed deciduous woodland | Unfavourable - Recovering | 12/11/2009 |
| Lowland wet heath | Unfavourable - Recovering | 12/11/2009 |
| Outstanding dragonfly assemblage | Favourable | 09/11/2009 |
| Population of Schedule 8 moss - Zygodon forsteri, Knothole Moss | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |

ID: -
 Location: 1832m NW
 SSSI name: Epping Forest
 Unit name: High Beach
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - No change
 Reportable features:



| Feature name | Feature condition | Date of assessment |
|---|---------------------------|--------------------|
| Amphibian assemblage | Unfavourable - No change | 25/01/2010 |
| Assemblages of breeding birds - Woodland | Unfavourable - No change | 25/01/2010 |
| Bryophyte assemblage | Unfavourable - Recovering | 18/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | Unfavourable - Recovering | 25/01/2010 |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland dry acid grassland (U1b,c,d,f) | - | - |
| Lowland dry acid grassland (U4) | - | - |
| Lowland mixed deciduous woodland | Unfavourable - No change | 25/01/2010 |
| Population of veteran trees | - | - |

ID: -
 Location: 1907m N
 SSSI name: Epping Forest
 Unit name: Deershelter Plain
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Assemblages of breeding birds - Woodland | Unfavourable - Recovering | 26/01/2010 |
| Bryophyte assemblage | Favourable | 09/11/2009 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H4010 Northern Atlantic wet heaths with Erica tetralix | Unfavourable - Recovering | 11/11/2009 |
| H4030 European dry heaths | - | - |
| H9120 Atlantic acidophilous beech forests with Ilex | - | - |
| Invert. assemblage A1 arboreal canopy | Favourable | 12/11/2009 |



| Feature name | Feature condition | Date of assessment |
|--|---------------------------|--------------------|
| Invert. assemblage A211 heartwood decay | Favourable | 12/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 12/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 12/11/2009 |
| Invert. assemblage F003 scrub-heath & moorland | Favourable | 12/11/2009 |
| Invert. assemblage W312 sphagnum bog | - | - |
| Lowland dry heath | - | - |
| Lowland mixed deciduous woodland | - | - |
| Lowland wet heath | Unfavourable - Recovering | 11/11/2009 |
| Outstanding dragonfly assemblage | - | - |
| Population of veteran trees | - | - |

ID: -
 Location: 1935m SW
 SSSI name: Epping Forest
 Unit name: Connaught Water
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Favourable
 Reportable features:

| Feature name | Feature condition | Date of assessment |
|---|-------------------|--------------------|
| Amphibian assemblage | - | - |
| Assemblages of breeding birds - Woodland | Favourable | 25/01/2010 |
| Bryophyte assemblage | Favourable | 25/01/2010 |
| Fungi assemblage | Favourable | 09/11/2009 |
| H9120 Atlantic acidophilous beech forests with Ilex | - | - |
| Invert. assemblage A1 arboreal canopy | Favourable | 09/11/2009 |
| Invert. assemblage A211 heartwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A212 bark and sapwood decay | Favourable | 09/11/2009 |
| Invert. assemblage A213 fungal fruiting body | Favourable | 09/11/2009 |
| Invert. assemblage W211 open water on disturbed sediments | - | - |
| Lowland mixed deciduous woodland | Favourable | 09/11/2009 |



| Feature name | Feature condition | Date of assessment |
|----------------------------------|-------------------|--------------------|
| Outstanding dragonfly assemblage | Favourable | 09/11/2009 |
| Population of veteran trees | - | - |

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

3

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 71**

| ID | Location | Name | Grade | Reference Number | Listed date |
|----|----------|--|-------|------------------|-------------|
| 2 | 77m NW | Bedford House, Loughton, Epping Forest, Essex, IG10 | II | 1337255 | 29/05/1984 |
| 3 | 167m SW | 2, Traps Hill, Loughton, Epping Forest, Essex, IG10 | II | 1111179 | 29/05/1984 |
| 4 | 239m NW | 34 And 36, York Hill, Loughton, Epping Forest, Essex, IG10 | II | 1111184 | 29/05/1984 |

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



11.5 Conservation Areas

Records within 250m

1

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 71**

| ID | Location | Name | District | Date of designation |
|----|----------|---------------------|---------------|---------------------|
| 1 | 48m NW | York Hill, Loughton | Epping Forest | 21/09/1977 |

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

11.7 Registered Parks and Gardens

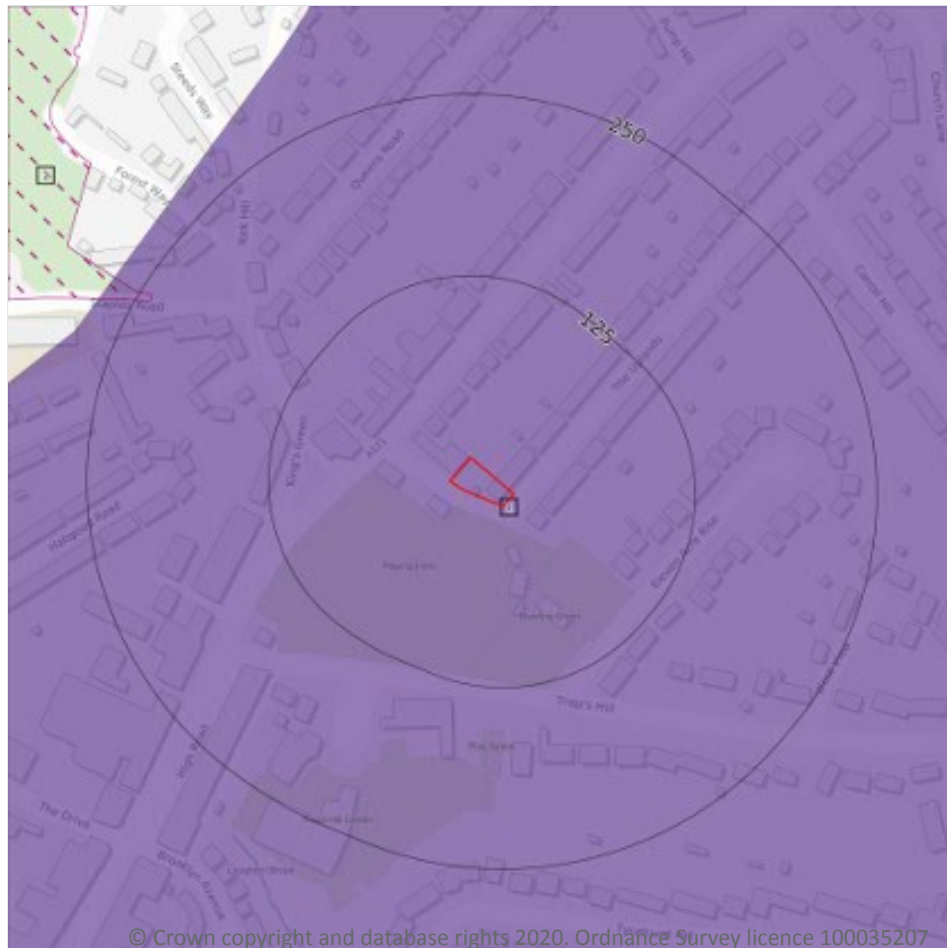
Records within 250m

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 English Heritage, 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

1

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 74**

| ID | Location | Classification | Description |
|----|----------|----------------|-------------|
| 1 | On site | Urban | - |

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 74**

| ID | Location | Name | Classification | Other relevant legislation |
|----|----------|---------------|-----------------|----------------------------|
| 2 | 241m NW | Epping Forest | Section 15 Land | Epping Forest Act 1878 |

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

1

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

| Location | Reference | Scheme | Start Date | End date |
|----------|------------|---|------------|------------|
| 241m NW | AG00275848 | Entry Level plus Higher Level Stewardship | 01/11/2008 | 31/10/2018 |

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.



An aerial map of a residential area in London, likely in the Wandsworth or Putney district. The map shows a grid of streets including Stapley Road, King's Cross, All, The Larches, Camp Hill, Queen's Road, York Hill, Hamp Hill, Queen Lane, Stapley Road, Malpas Road, High Road, The Drive, Broadway Avenue, and Camp Hill. Two concentric circles are drawn on the map, with radii labeled 125 and 250. A red rectangle highlights a specific area on the map, located near the intersection of King's Cross and All, adjacent to a green field labeled 'Haring Field' and a green area labeled 'Haring Green'. The map also shows a blue line representing a water feature, possibly a stream or canal, labeled 'Lymington Brook'. The map is overlaid with a grid of streets and building footprints. The map is credited to Crown copyright and database rights 2020, Ordnance Survey licence 100035207.

-  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

| | |
|---------------------|---|
| Records within 250m | 1 |
|---------------------|---|

Features are displayed on the Habitat designations map on **page 77**

| ID | Location | Main Habitat | Other habitats |
|----|----------|--------------------|---|
| 1 | 241m NW | Deciduous woodland | Main habitat: DWOOD (INV > 50%, ENSIS L1) |

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

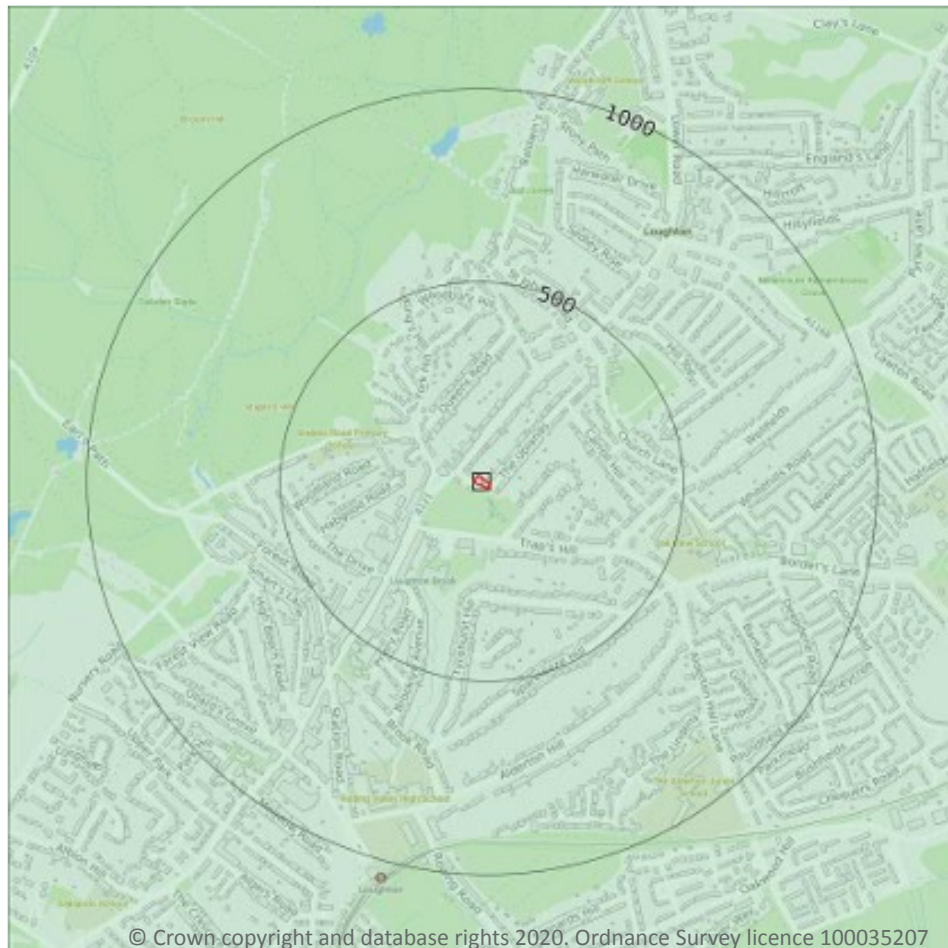
0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 79**

| ID | Location | Artificial | Superficial | Bedrock | Mass movement | Sheet No. |
|----|----------|------------|-------------|---------|---------------|-----------|
| 1 | On site | Full | Full | Full | Full | TQ49NW |

This data is sourced from the British Geological Survey.



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

14.2 Artificial and made ground (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m

5

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 81**

| ID | Location | LEX Code | Description | Rock description |
|----|----------|----------|--|------------------|
| 1 | 212m E | TILL-C | Till - Clay | Clay |
| 2 | 262m SW | ALV-C | Alluvium - Clay (unlithified Deposits Coding Scheme) | Clay |
| 3 | 321m SW | HEAD-C | Head - Clay (unlithified Deposits Coding Scheme) | Clay |
| 4 | 405m SE | WOGR-XSV | Woodford Gravel Formation - Sand And Gravel | Sand And Gravel |



| ID | Location | LEX Code | Description | Rock description |
|----|----------|----------|---|------------------|
| 5 | 477m NW | WOGR-XSV | Woodford Gravel Formation - Sand And Gravel | Sand And Gravel |

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

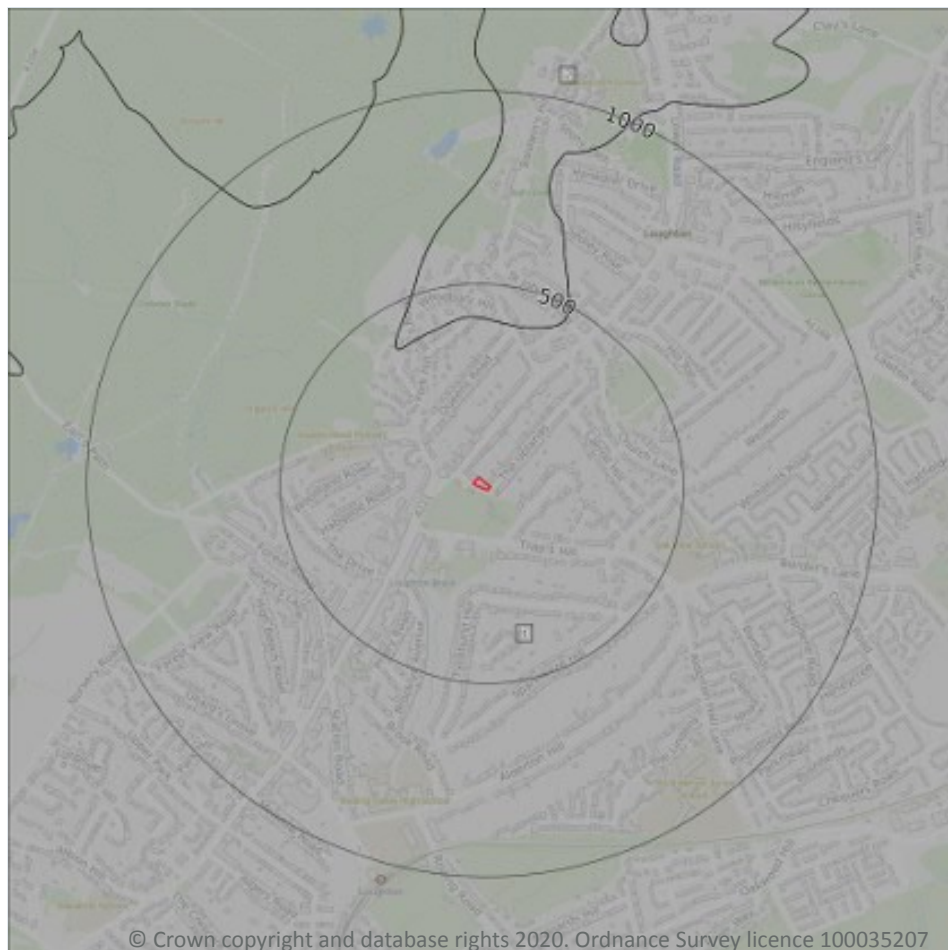
0

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

2

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 83**

| ID | Location | LEX Code | Description | Rock age |
|----|----------|------------|------------------------------|--------------|
| 1 | On site | LC-CLAY | London Clay Formation - Clay | Eocene Epoch |
| 2 | 388m NW | CLGB-SANDU | Claygate Member - Sand | Eocene 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 85**

| ID | Location | Artificial | Superficial | Bedrock | Mass movement | Sheet No. |
|----|----------|------------|-------------|---------|---------------|------------------|
| 1 | On site | Full | Full | Full | Full | EW257_romford_v4 |

This data is sourced from the British Geological Survey.



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

15.2 Artificial and made ground (50k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

15.3 Artificial ground 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 artificial 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 - 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

5

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 87**

| ID | Location | LEX Code | Description | Rock description |
|----|----------|------------|---------------------|-----------------------------|
| 1 | 212m E | LOFT-DMTN | LOWESTOFT FORMATION | DIAMICTON |
| 2 | 262m SW | ALV-XCZSV | ALLUVIUM | CLAY, SILT, SAND AND GRAVEL |
| 3 | 321m SW | HEAD-XCZSV | HEAD | CLAY, SILT, SAND AND GRAVEL |

| ID | Location | LEX Code | Description | Rock description |
|----|----------|----------|---------------------------|------------------|
| 4 | 405m SE | WOGR-XSV | WOODFORD GRAVEL FORMATION | SAND AND GRAVEL |
| 5 | 477m NW | WOGR-XSV | WOODFORD GRAVEL FORMATION | SAND AND GRAVEL |

This data is sourced from the British Geological Survey.

15.5 Superficial 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 superficial deposits (the zone between the land surface and the water table).

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

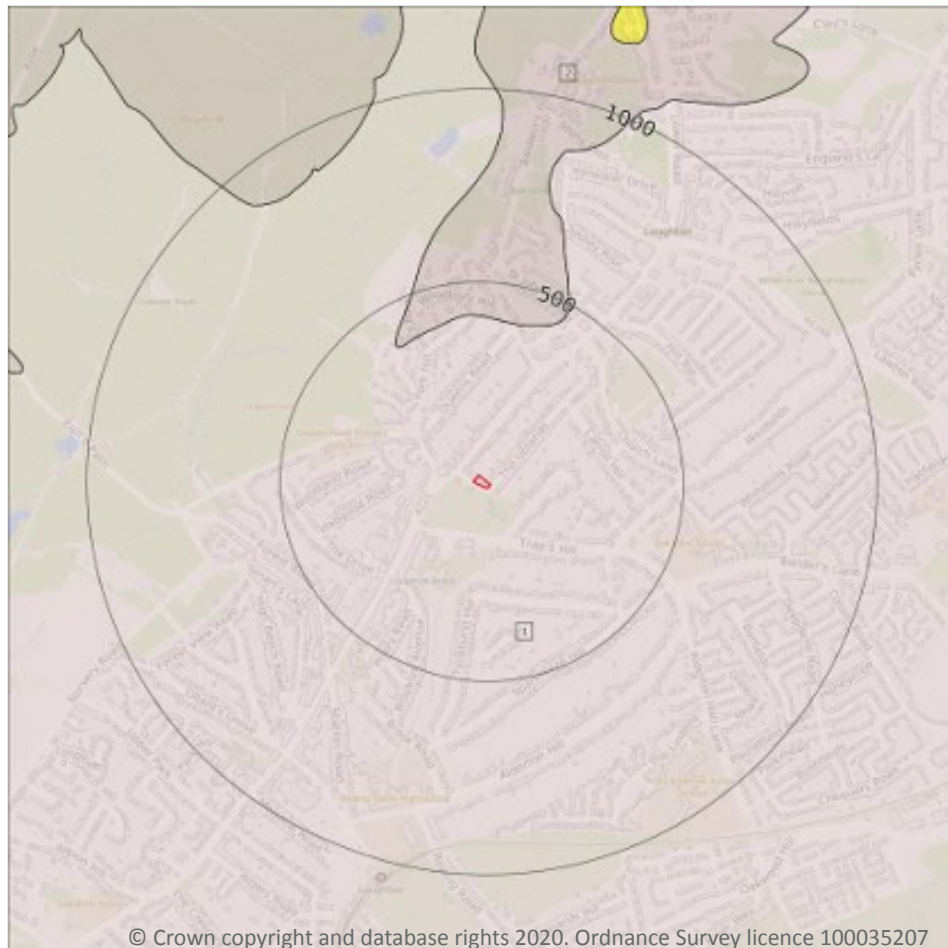
0

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

2

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 89**

| ID | Location | LEX Code | Description | Rock age |
|----|----------|-----------|---|----------|
| 1 | On site | LC-XCZS | LONDON CLAY FORMATION - CLAY, SILT AND SAND | YPRESIAN |
| 2 | 388m NW | CLGB-XCZS | CLAYGATE MEMBER - CLAY, SILT AND SAND | YPRESIAN |

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m**1**

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 | Mixed | Moderate | Very Low |

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

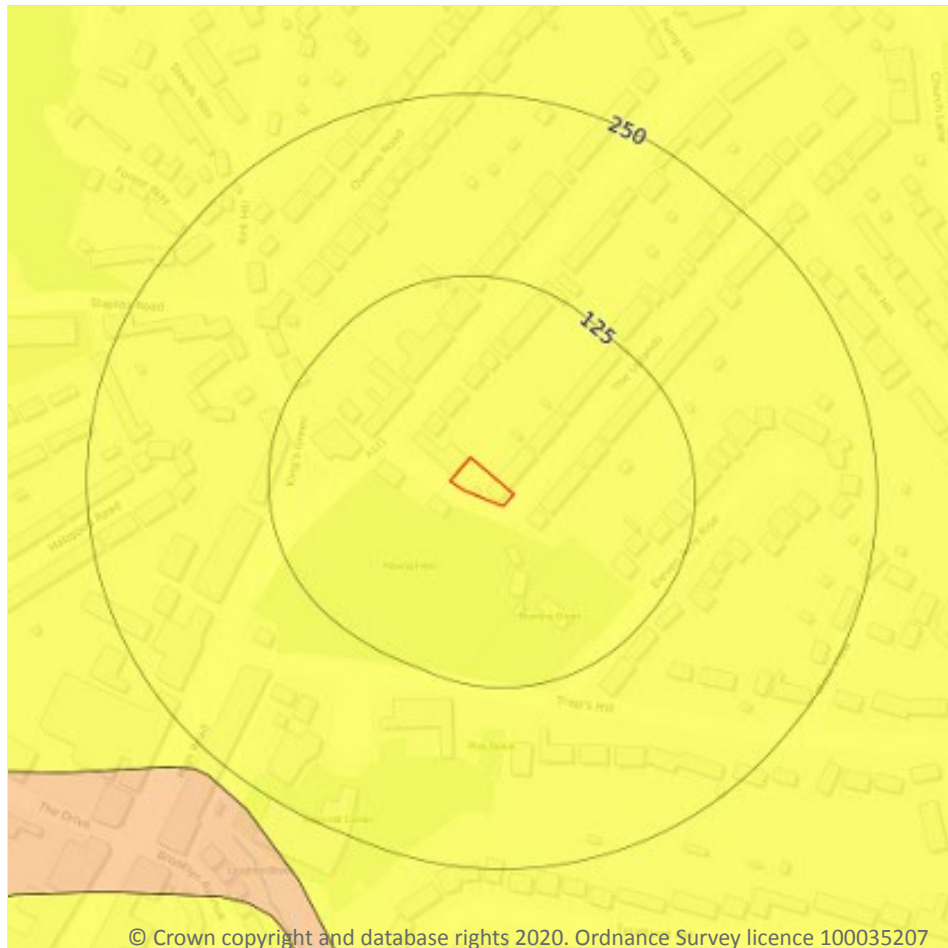
0

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.

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

1

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.

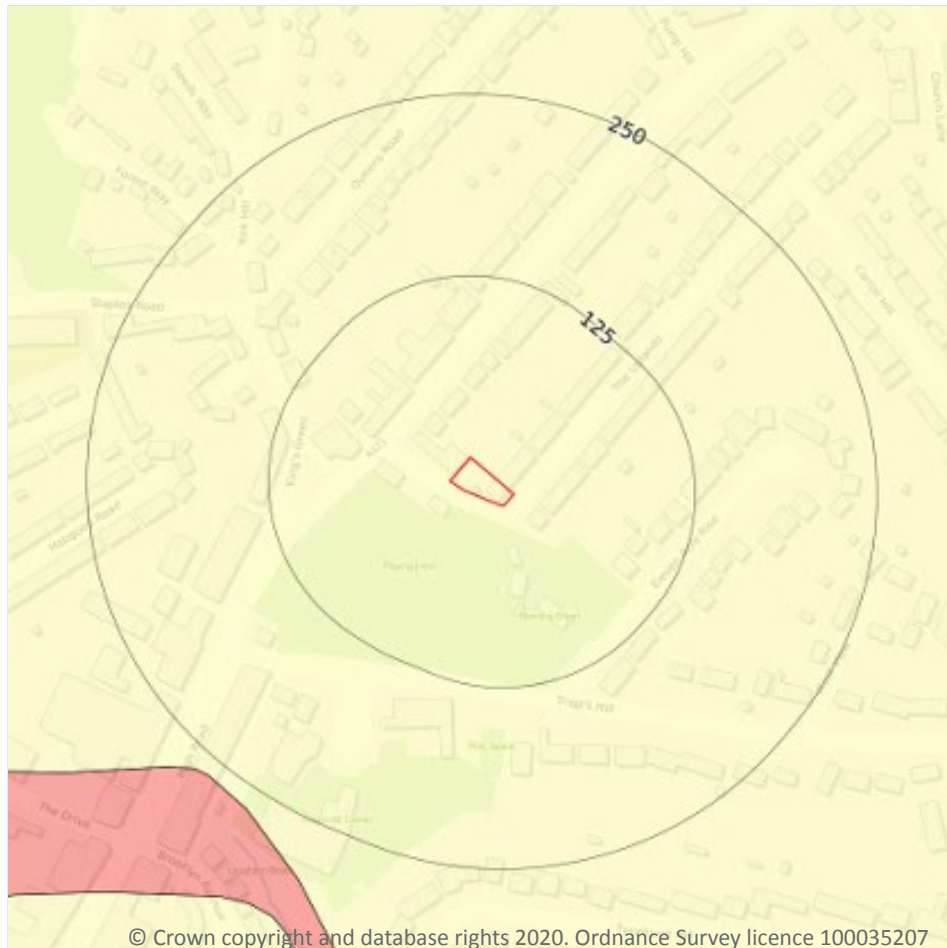
Features are displayed on the Natural ground subsidence - Running sands map on **page 93**

| 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. |

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

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17.3 Compressible deposits

Records within 50m

1

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.

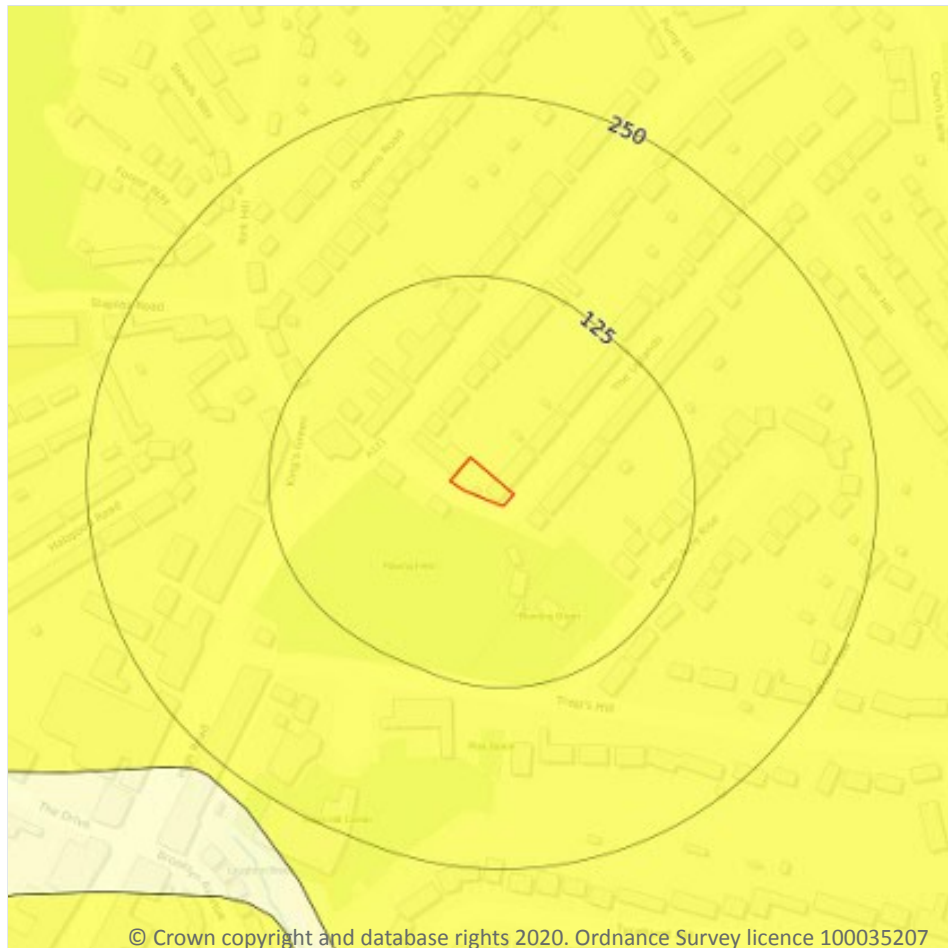
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 94**

| Location | Hazard rating | Details |
|----------|---------------|---|
| On site | Negligible | Compressible strata are not thought to occur. |

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

1

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.

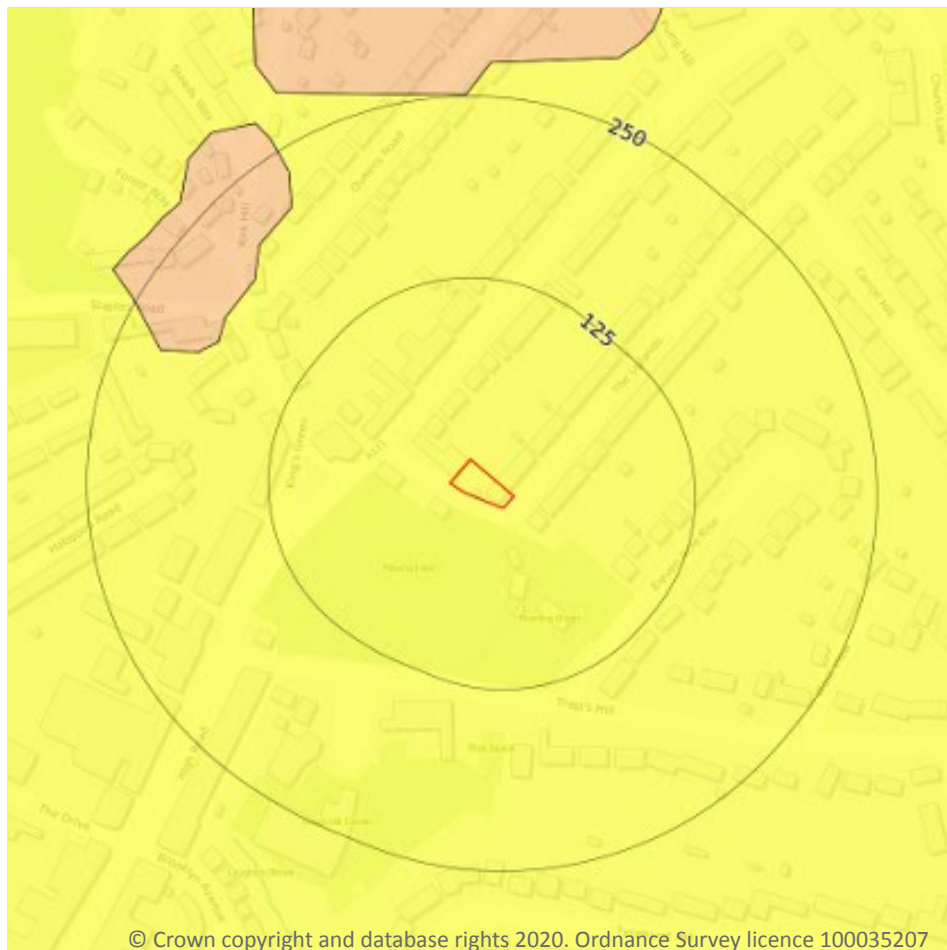
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 95**

| Location | Hazard rating | Details |
|----------|---------------|---|
| On site | Very low | Deposits with potential to collapse when loaded and saturated are unlikely 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

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17.5 Landslides

Records within 50m

1

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.

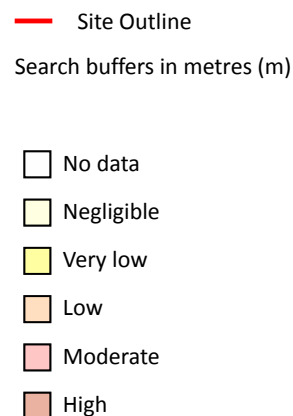
Features are displayed on the Natural ground subsidence - Landslides map on **page 96**

| 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. |

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

1

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 97**

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

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities

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 Peter Brett Associates (PBA).

18.2 BritPits

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

0

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.

This 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 data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

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.

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from 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).

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 Peter Brett Associates (PBA).

18.8 JPB mining areas

Records on site

0

Areas which could be affected by former coal 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 Mining Searches UK.

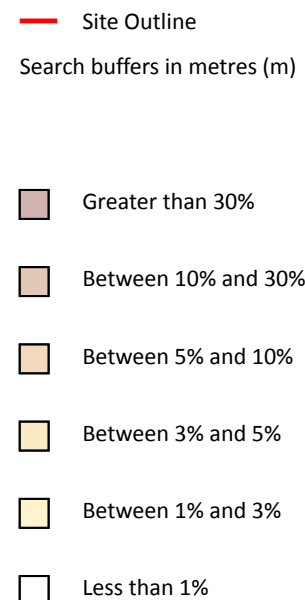
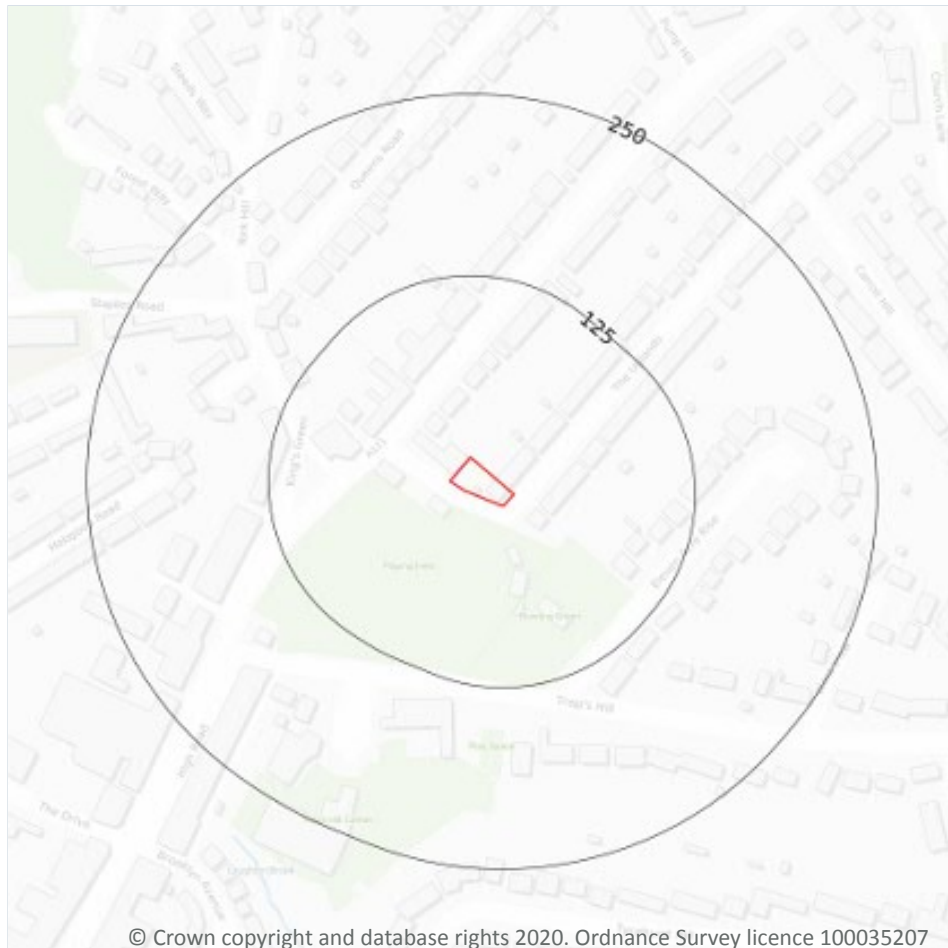
18.13 Clay mining

| | |
|-----------------|---|
| 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



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 101**

| 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**1**

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 km². 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 km²; 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 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**0**

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 km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m**0**

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 km².

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 | 0 |
|---------------------|---|

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.

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 | 0 |
|---------------------|---|

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.

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>.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



20 APPENDIX 4 – SITE PHOTOGRAPHY

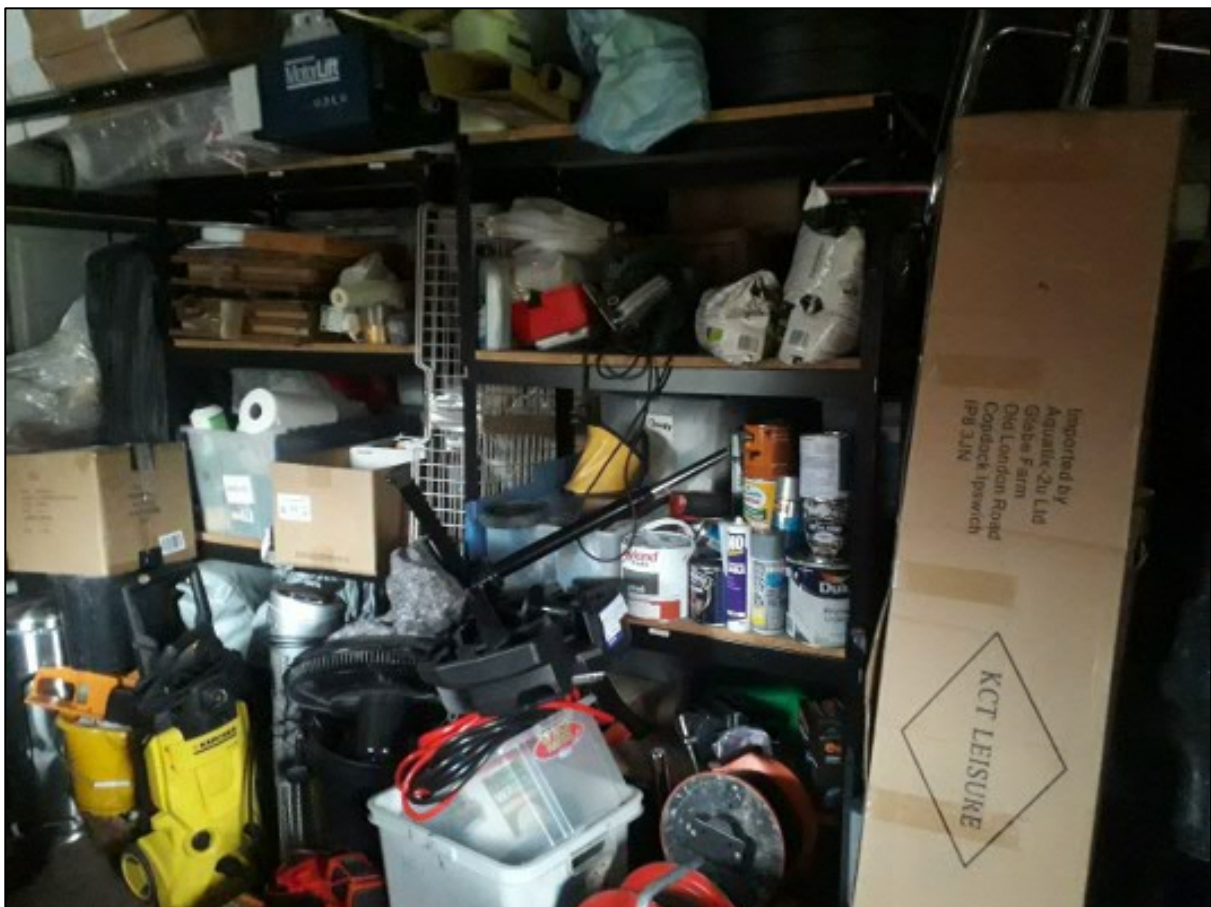












21 APPENDIX 5 - RISK ASSESSMENT METHODOLOGY

- Severity considers the potential impact of the linkage on the receptors, if the linkage was active. Categories range from slight/superficial to fatal.
- Likelihood considers the chances of the linkage occurring and is classified into categories from improbable to frequent.

By assigning scores with each of the above categories, the risk assessment can be undertaken using the formula:

$$\text{RISK} = \text{LIKELIHOOD} \times \text{SEVERITY}$$

The matrix given in Table 10 provides a means of calculating the overall risk; while Table 11 provides the qualitative assessment based on the risk score.

Table 10: Contamination Risk Matrix

| | | Potential Severity | | | | |
|------------------------|-----------------|--------------------|----------------|----------------|----------------|-------------|
| | | Fatal 5 | Major 4 | Moderate 3 | Minor 2 | Slight 1 |
| Probable Likelihood | Frequent 5 | Very High | High | Moderate | Low - Moderate | Low |
| | Probable 4 | High | High | Moderate | Low - Moderate | Low |
| | Possible 3 | Moderate | Moderate | Low - Moderate | Low - Moderate | Very Low |
| | Remote 2 | Low - Moderate | Low - Moderate | Low - Moderate | Low | Very Low |
| | Improbable 1 | Low | Low | Very Low | Very Low | Very Low |

Table 11: Assessment description for risk scores

| Risk Score | Risk Assessment |
|------------|-----------------|
| 1-3 | Very Low |
| 4-5 | Low |
| 6-10 | Low to Moderate |
| 11-15 | Moderate |
| 16-20 | High |
| 21-25 | Very High |

Table 12: Risk Classification System

| Risk Term | Description |
|------------------------|--|
| Very Low to Low | The presence of an identified hazard does not give rise to the potential to cause significant harm to a designated receptor. In the event of such harm being realized, it is not likely to be Severe. |
| Low to Moderate | It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realized, would at worst normally be mild. |
| Moderate | It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term. |
| High | Harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remedial action. Investigation is required and remedial works may be necessary in the short term and are likely over the longer term. |
| Very High | There is a high probability that severe harm could arise to a designated receptor from an identified hazard, or, there is an evidence that severe harm to a designated receptor is currently happening. Urgent investigation and remediation are likely to be required. |

22 ABBREVIATIONS

| Abbreviation | Description |
|--------------|---|
| AONB | Areas of Outstanding Natural Beauty |
| c. | circa |
| CLRA | Contaminated Land Risk Assessment |
| COMAH | Control of Major Accident Hazards |
| CSM | Conceptual Site Risk Model |
| EA | Environment Agency |
| IPC | Integrated Pollution Control |
| IPPC | Integrated Pollution Prevention Control |
| LAPC | Local Authority Pollution Control |
| LNR | Local Nature Reserves |
| NIHHS | Notification of Installations Handling Hazardous Substances |
| NNR | National Nature Reserves |
| NP | National Parks |
| NPPF | National Planning Policy Framework |
| OS | Ordnance Survey |
| PAHs | Polycyclic Aromatic Hydrocarbons |
| Part IIA | Part IIA of the Environmental Protection. Act 1990 |
| PCBs | Polychlorinated Biphenyls |
| PCLU | Potentially Contaminative Land Use |
| PPL | Potential Pollutant Linkage |
| PSPPL | Potentially Significant Potential Pollutant Linkage |
| SAC | Special Areas of Conservation |
| SI | Site Investigation |
| SPA | Special Protection Area |
| SPOSH | Significant Possibility of Significant Harm |
| SSSIs | Sites of Special Scientific Interest |
| TPHs | Total Petroleum Hydrocarbons |
| UXO | Unexploded Ordnance |