

#### 4.4 Gas pipelines

Records within 500m	0
---------------------	---

High pressure underground gas transmission pipelines.

*This data is sourced from National Grid.*

#### 4.5 Sites determined as Contaminated Land

Records within 500m	0
---------------------	---

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

*This data is sourced from Local Authority records.*

#### 4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0
---------------------	---

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

*This data is sourced from the Health and Safety Executive.*

#### 4.7 Regulated explosive sites

Records within 500m	0
---------------------	---

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

*This data is sourced from the Health and Safety Executive.*

#### 4.8 Hazardous substance storage/usage

Records within 500m	0
---------------------	---

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

*This data is sourced from Local Authority records.*

#### 4.9 Historical licensed industrial activities (IPC)

Records within 500m 0

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

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

#### 4.10 Licensed industrial activities (Part A(1))

Records within 500m 0

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

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

#### 4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m 0

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

*This data is sourced from Local Authority records.*

#### 4.12 Radioactive Substance Authorisations

Records within 500m 0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

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

#### 4.13 Licensed Discharges to controlled waters

Records within 500m 5

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 29**

ID	Location	Address	Details	
5	309m SE	WHEELCLUB, WINCHESTER ROAD, FOUR MA, WHEELCLUB WINCHESTER ROAD FOUR, MARKS HANTS.	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CTWC.0125 Permit Version: 1 Receiving Water: CHALK	Status: REVOKED - UNSPECIFIED Issue date: 28/05/1985 Effective Date: 28/05/1985 Revocation Date: 22/07/1994
B	419m N	Burghfield, Sulhampsted Road, Burghfield, Sulhampsted Road	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.0572 Permit Version: 1 Receiving Water: BEENHAM STREAM	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
B	419m N	Burghfield, Sulhampsted Road, Burghfield, Sulhampsted Road	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.0572 Permit Version: 2 Receiving Water: Beenham Stream	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 13/10/2015
C	446m NE	HILLFIELDS LODGE, HERMITS HILL, REA, HILLFIELDS LODGE HERMITS HILL , READING ROAD BURGHFIELD BERKSH, IRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CNTW.0559 Permit Version: 1 Receiving Water: LONDON CLAY	Status: TRANSFERRED FROM WATER ACT 1989 Issue date: 14/06/1990 Effective Date: 14/06/1990 Revocation Date: 23/05/2006
C	446m NE	HILLFIELDS LODGE, HERMITS HILL, REA, HILLFIELDS LODGE HERMITS HILL , READING ROAD BURGHFIELD BERKSH, IRE	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CNTW.0559 Permit Version: 2 Receiving Water: LONDON CLAY	Status: TRANSFERRED FROM WATER ACT 1989 Issue date: 14/06/1990 Effective Date: 24/05/2006 Revocation Date: 31/03/2019

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

#### 4.14 Pollutant release to surface waters (Red List)

**Records within 500m**

**0**

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

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



#### 4.15 Pollutant release to public sewer

Records within 500m	0
---------------------	---

Discharges of Special Category Effluents to the public sewer.

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

#### 4.16 List 1 Dangerous Substances

Records within 500m	0
---------------------	---

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

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

#### 4.17 List 2 Dangerous Substances

Records within 500m	0
---------------------	---

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

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

#### 4.18 Pollution Incidents (EA/NRW)

Records within 500m	0
---------------------	---

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

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

#### 4.19 Pollution inventory substances

Records within 500m	0
---------------------	---

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*

## 4.20 Pollution inventory waste transfers

Records within 500m

0

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*

## 4.21 Pollution inventory radioactive waste

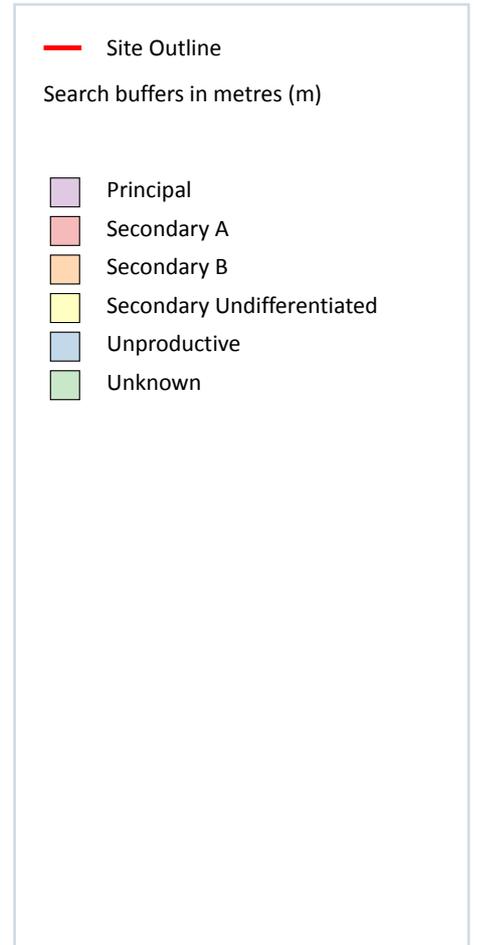
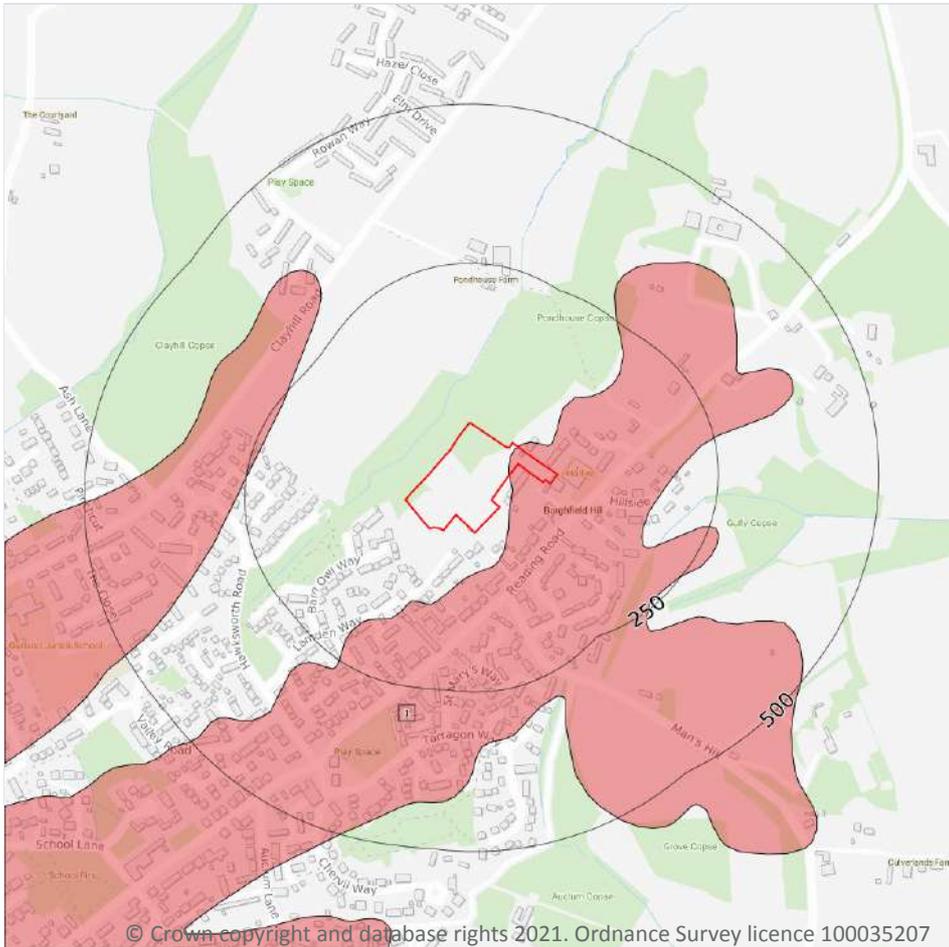
Records within 500m

0

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

*This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.*

## 5 Hydrogeology - Superficial aquifer



### 5.1 Superficial aquifer

Records within 500m

1

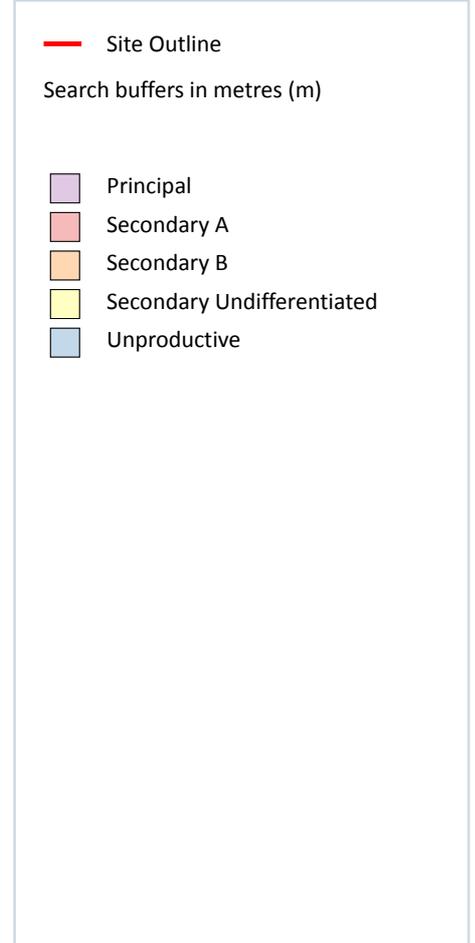
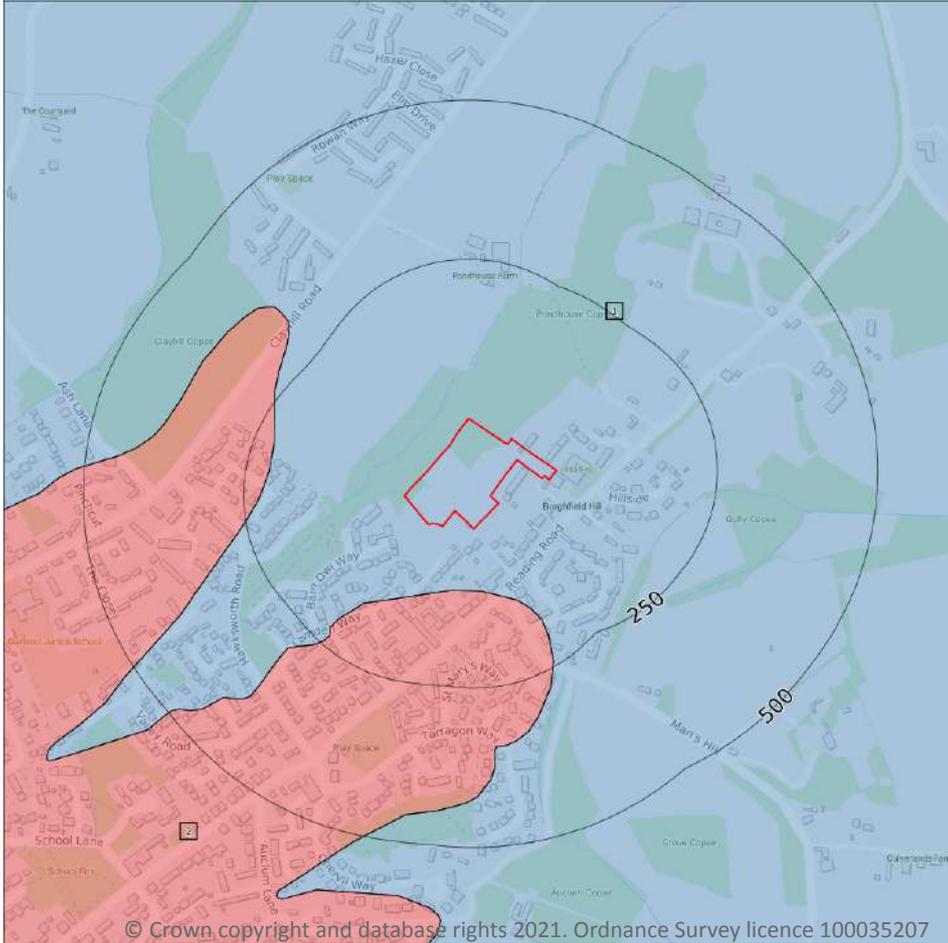
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 36**

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

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

## Bedrock aquifer



### 5.2 Bedrock aquifer

Records within 500m

2

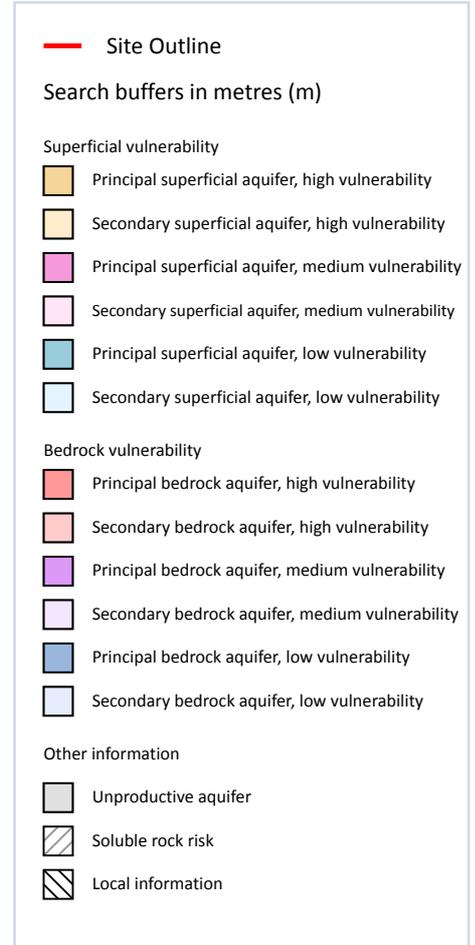
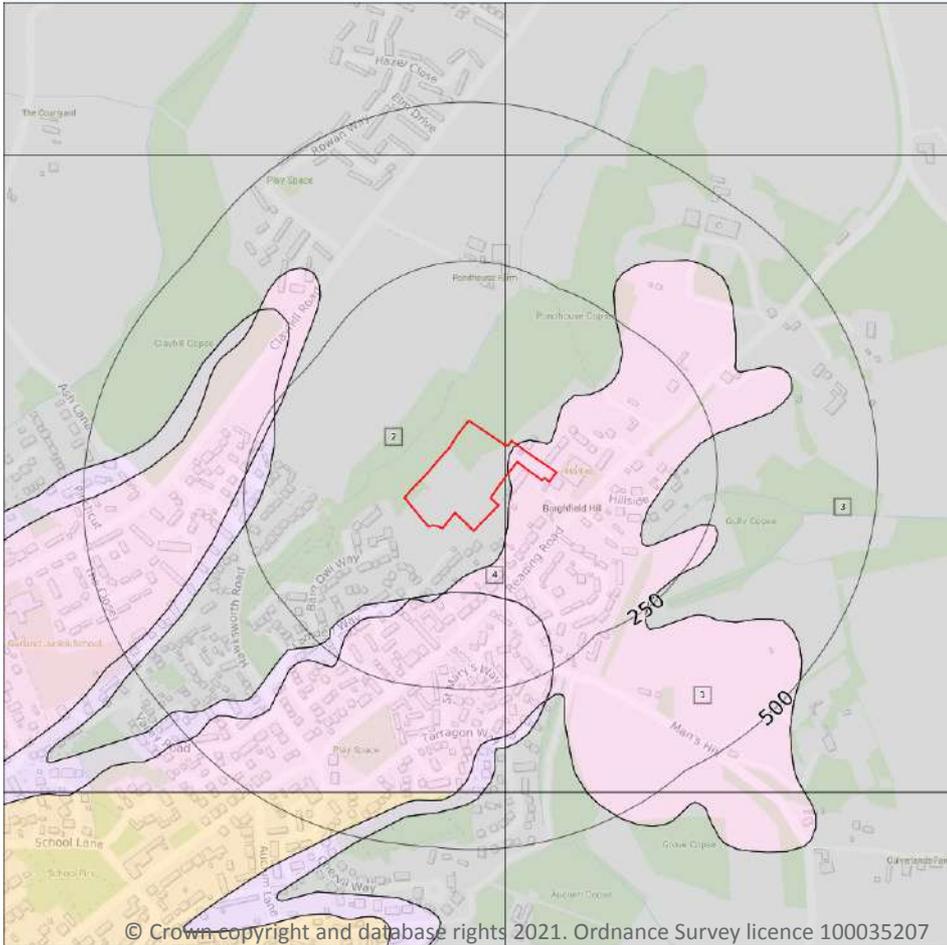
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 37**

ID	Location	Designation	Description
1	On site	Unproductive	<b>These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow</b>
2	97m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

*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

4

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 38**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	<b>Summary Classification:</b> Secondary superficial aquifer - Medium Vulnerability <b>Combined classification:</b> Unproductive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> 40-70% <b>Dilution value:</b> 300-550mm/year	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> Unproductive <b>Aquifer type:</b> Unproductive <b>Flow mechanism:</b> Mixed
2	On site	<b>Summary Classification:</b> Unproductive aquifer (may have productive aquifer beneath) <b>Combined classification:</b> Unproductive Bedrock Aquifer, No Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> 40-70% <b>Dilution value:</b> 300-550mm/year	<b>Vulnerability:</b> - <b>Aquifer type:</b> - <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> Unproductive <b>Aquifer type:</b> Unproductive <b>Flow mechanism:</b> Mixed
3	On site	<b>Summary Classification:</b> Unproductive aquifer (may have productive aquifer beneath) <b>Combined classification:</b> Unproductive Bedrock Aquifer, No Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> 40-70% <b>Dilution value:</b> 300-550mm/year	<b>Vulnerability:</b> - <b>Aquifer type:</b> - <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> Unproductive <b>Aquifer type:</b> Unproductive <b>Flow mechanism:</b> Mixed
4	44m SE	<b>Summary Classification:</b> Secondary superficial aquifer - Medium Vulnerability <b>Combined classification:</b> Unproductive Bedrock Aquifer, Productive Superficial Aquifer	<b>Leaching class:</b> Low <b>Infiltration value:</b> 40-70% <b>Dilution value:</b> 300-550mm/year	<b>Vulnerability:</b> Medium <b>Aquifer type:</b> Secondary <b>Thickness:</b> <3m <b>Patchiness value:</b> <90% <b>Recharge potential:</b> No Data	<b>Vulnerability:</b> Unproductive <b>Aquifer type:</b> Unproductive <b>Flow mechanism:</b> 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

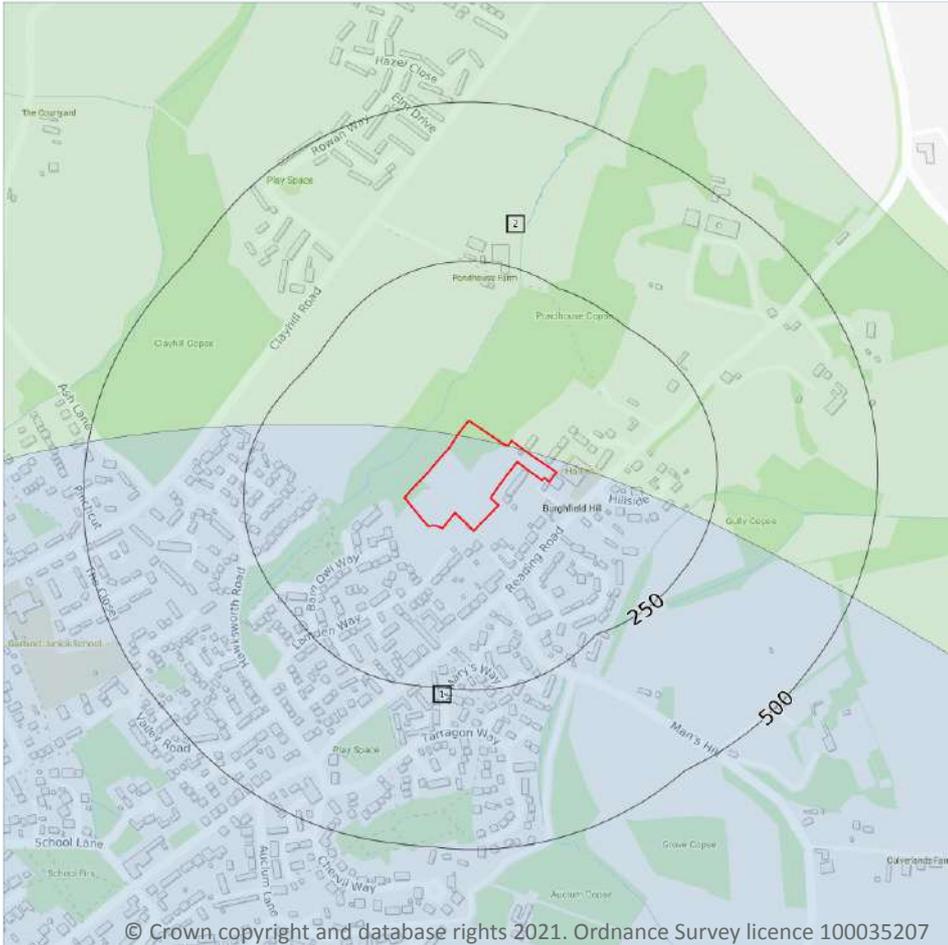
0

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](mailto: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

2

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 41**

ID	Location	Details	
-	1580m SW	Status: Historical Licence No: 28/39/22/0616 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: THE BOLT HOLE, HOLLYBUSH LANE, SULHAMPSTEAD Data Type: Point Name: ROY Easting: 464390 Northing: 166840	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 18/07/2002 Expiry Date: 31/03/2017 Issue No: 1 Version Start Date: 18/07/2002 Version End Date: -
-	1767m SW	Status: Historical Licence No: 28/39/22/0221 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: FIRLANDS, BURGHFIELD COMMON Data Type: Point Name: TRUSTEES OF T A SAUNDERS Easting: 464300 Northing: 166600	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: 14/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 14/11/1966 Version End Date: -

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

## 5.7 Surface water abstractions

<b>Records within 2000m</b>	<b>2</b>
-----------------------------	----------

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 41**

ID	Location	Details	
-	1837m NW	Status: Active Licence No: 28/39/22/0410 Details: Make-Up Or Top Up Water Direct Source: THAMES SURFACE WATER - NON TIDAL Point: HOME FARM, SULHAMSTEAD (TRIB OF R KENNET) 'B' Data Type: Point Name: FOLLY FARM PARTNERS Easting: 464400 Northing: 168600	Annual Volume (m <sup>3</sup> ): 27,277 Max Daily Volume (m <sup>3</sup> ): 2,727.66 Original Application No: - Original Start Date: 14/05/1973 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1989 Version End Date: -

ID	Location	Details	
-	1859m NW	Status: Active Licence No: 28/39/22/0410 Details: Make-Up Or Top Up Water Direct Source: THAMES SURFACE WATER - NON TIDAL Point: HOME FARM, SULHAMSTEAD (TRIB OF R KENNET) 'A' Data Type: Point Name: FOLLY FARM PARTNERS Easting: 464300 Northing: 168500	Annual Volume (m <sup>3</sup> ): 27,277 Max Daily Volume (m <sup>3</sup> ): 2,727.66 Original Application No: - Original Start Date: 14/05/1973 Expiry Date: - Issue No: 100 Version Start Date: 05/07/1989 Version End Date: -

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

## 5.8 Potable abstractions

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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

<b>Records within 500m</b>	<b>2</b>
----------------------------	----------

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 41**

ID	Location	Type	Description
1	On site	2	Outer catchment
2	On site	3	Total catchment

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

## 5.10 Source Protection Zones (confined aquifer)

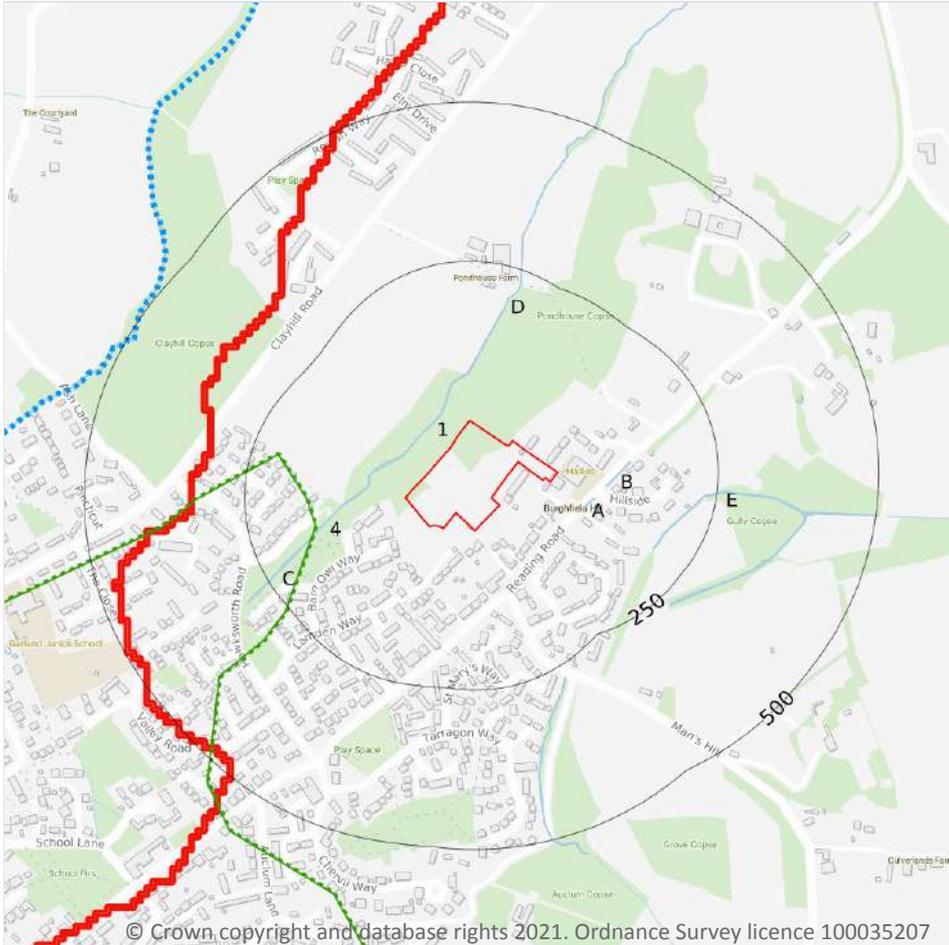
<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

9

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

Features are displayed on the Hydrology map on **page 44**

ID	Location	Type of water feature	Ground level	Permanence	Name
1	41m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

ID	Location	Type of water feature	Ground level	Permanence	Name
A	66m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	78m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
4	98m W	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
C	156m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	173m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
E	190m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	224m N	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	228m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

*This data is sourced from the Ordnance Survey.*

## 6.2 Surface water features

### Records within 250m

7

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

Features are displayed on the Hydrology map on **page 44**

*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 44**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River WB catchment	Burghfield Brook	GB106039017410	Kennet	Kennet and tributaries

*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 44**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	728m S	River	Burghfield Brook	<a href="#">GB106039017410</a>	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 the sea

Records within 50m

0

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

*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

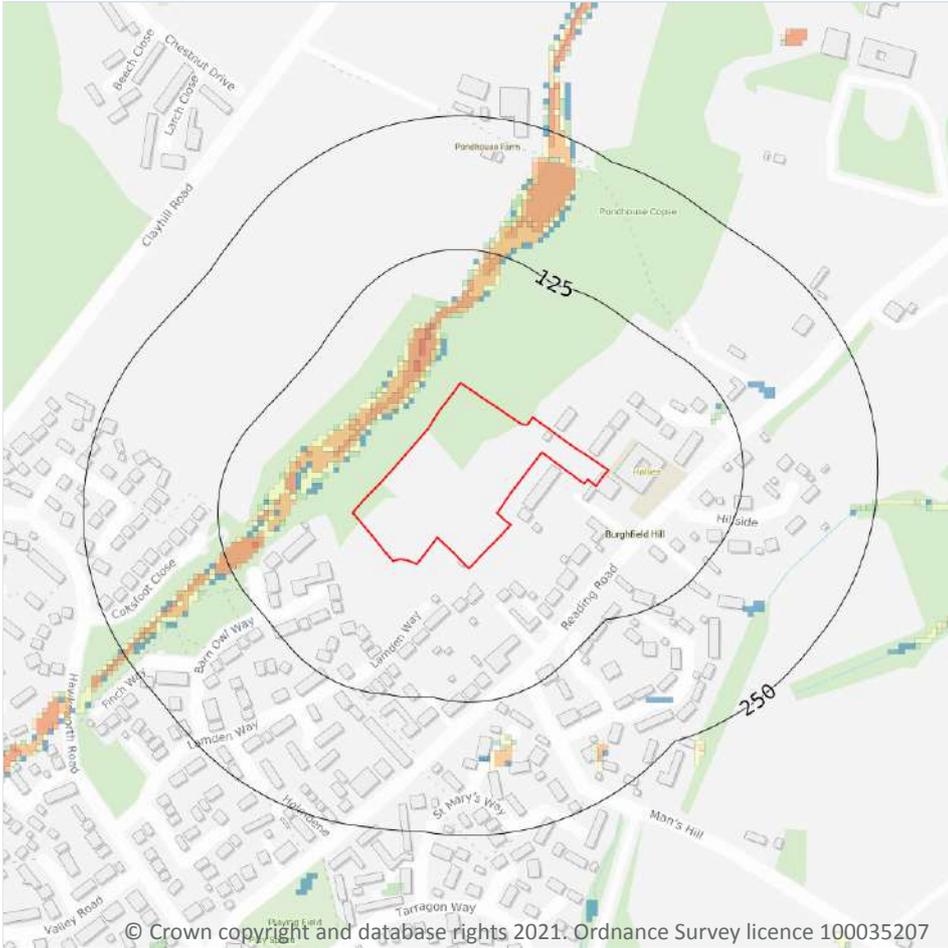
0

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 30 year, Greater than 1.0m

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

Features are displayed on the Surface water flooding map on **page 50**

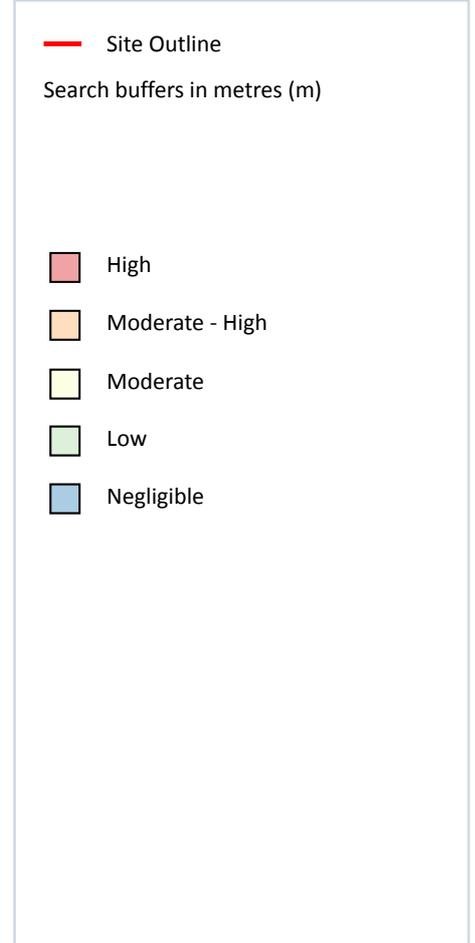
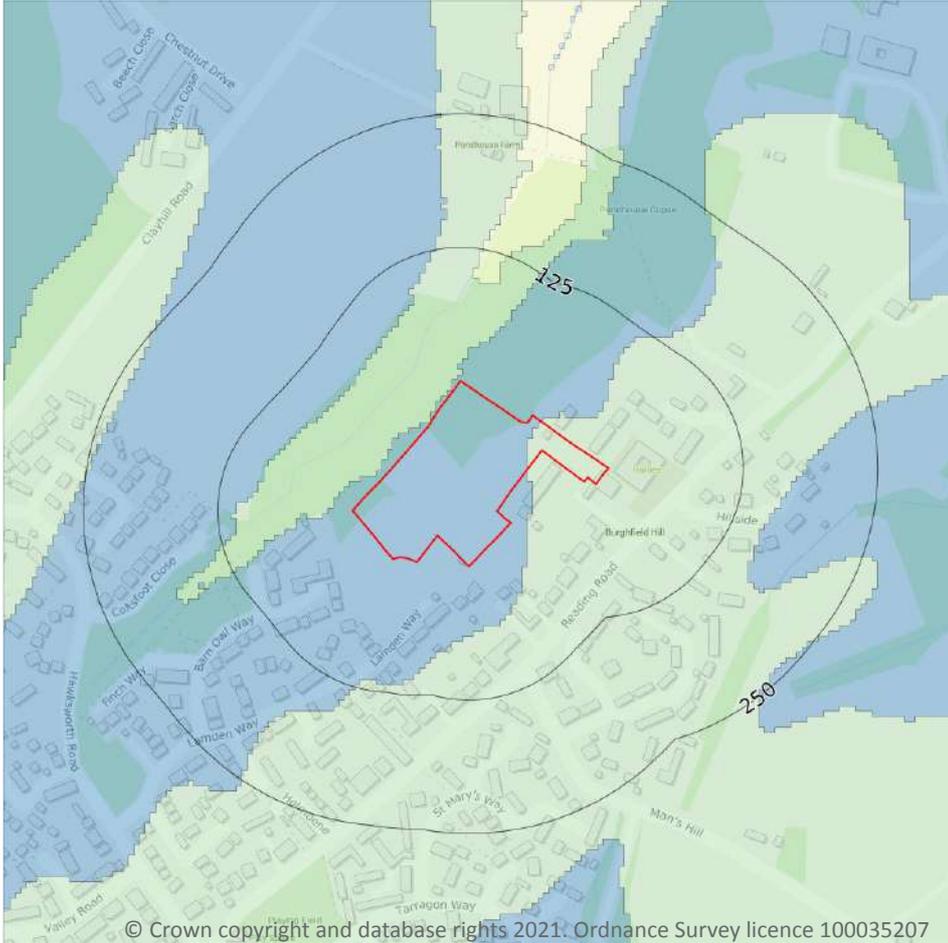
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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 Ambiental Risk Analytics.*

## 9 Groundwater flooding



### 9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

Low

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 52**

*This data is sourced from Ambiental Risk Analytics.*

## 10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Designated Ancient Woodland

### 10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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.

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

## 10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

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

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

## 10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

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

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

## 10.4 Special Protection Areas (SPA)

Records within 2000m

0

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

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

## 10.5 National Nature Reserves (NNR)

Records within 2000m

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

0

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.

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

## 10.7 Designated Ancient Woodland

Records within 2000m

9

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 53**

ID	Location	Name	Woodland Type
1	On site	Pondhouse Copse	Ancient & Semi-Natural Woodland
2	40m W	Pondhouse Copse	Ancient & Semi-Natural Woodland
3	337m NW	Clayhill Copse	Ancient & Semi-Natural Woodland
4	403m S	Burghfield Hill Wood	Ancient & Semi-Natural Woodland
5	498m S	Auclum Copse	Ancient & Semi-Natural Woodland
6	740m S	Little Auclum Copse	Ancient & Semi-Natural Woodland
7	911m NW	Bristows Copse	Ancient & Semi-Natural Woodland
8	1467m NW	Boarmoor Wood	Ancient & Semi-Natural Woodland
9	1530m NW	Tennings Copse	Ancient & Semi-Natural Woodland

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

## 10.8 Biosphere Reserves

Records within 2000m

0

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



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

## 10.9 Forest Parks

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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

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

## 10.12 Proposed Ramsar sites

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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)

<b>Records within 2000m</b>	<b>0</b>
-----------------------------	----------

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

3

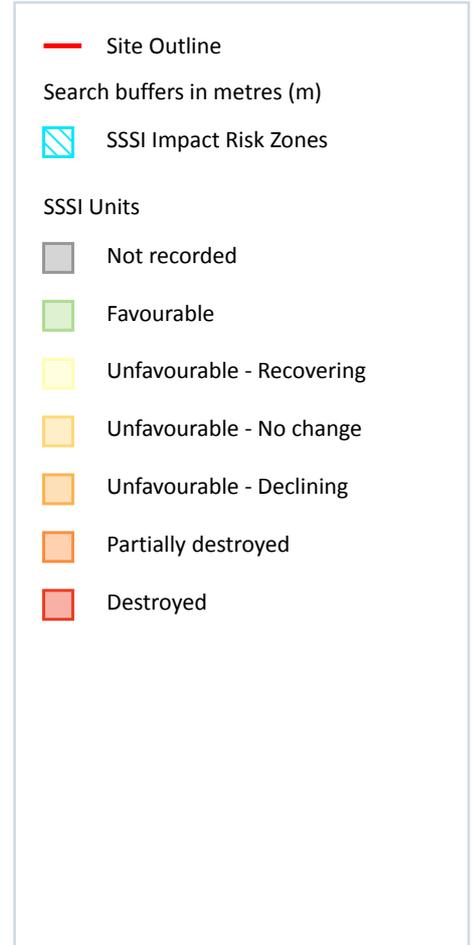
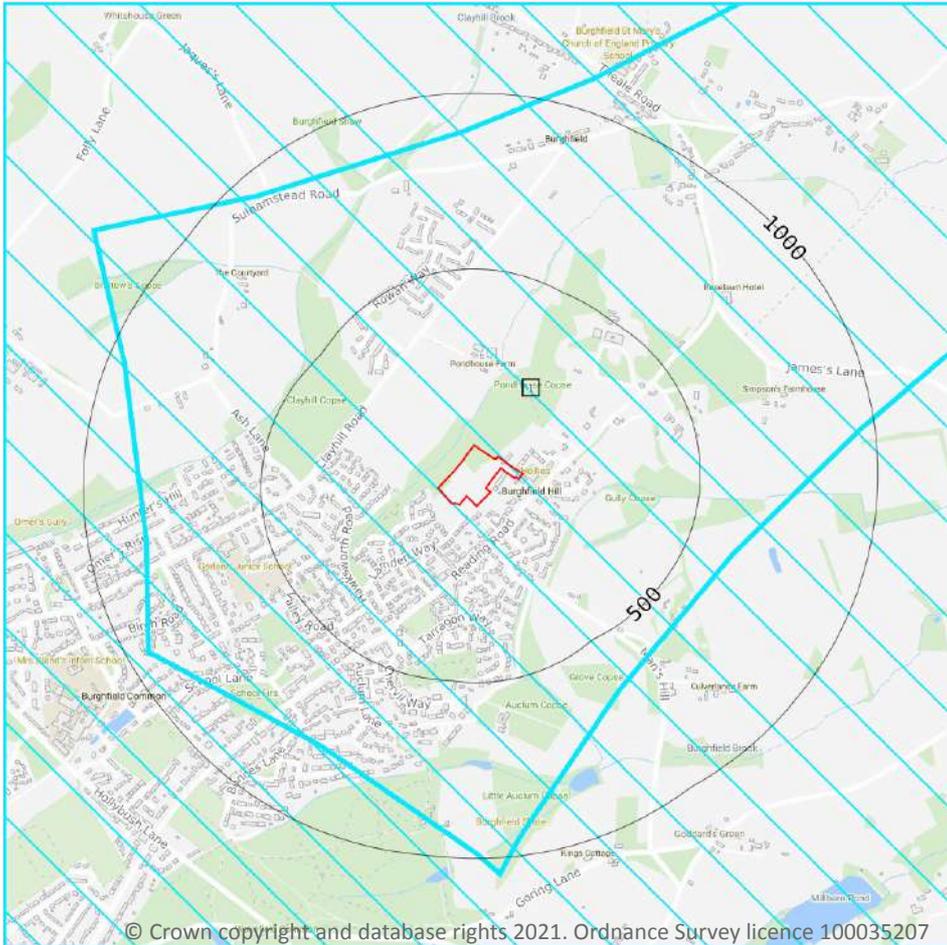
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
310m N	Clayhill Brook NVZ	Surface Water	S833	Changed
1744m S	Foudry Brook (West End Brook to M4) NVZ	Surface Water	S459	Changed
1751m W	Clayhill Brook NVZ	Surface Water	S833	Changed

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



## SSSI Impact Zones and Units



### 10.17 SSSI Impact Risk Zones

#### Records on site

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 58**

ID	Location	Type of developments requiring consultation
1	On site	<b>Infrastructure - Airports, helipads and other aviation proposals.</b> <b>Air pollution - Livestock &amp; poultry units with floorspace &gt; 500m<sup>2</sup>, slurry lagoons &gt; 4000m<sup>2</sup>.</b> <b>Combustion - General combustion processes &gt;50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion</b>

*This data is sourced from Natural England.*

## 10.18 SSSI Units

**Records within 2000m**

**0**

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.

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

## 11 Visual and cultural designations

### 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	0
---------------------	---

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.



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

## 11.5 Conservation Areas

**Records within 250m**

**0**

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.

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

## 11.6 Scheduled Ancient Monuments

**Records within 250m**

**0**

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

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

## 11.7 Registered Parks and Gardens

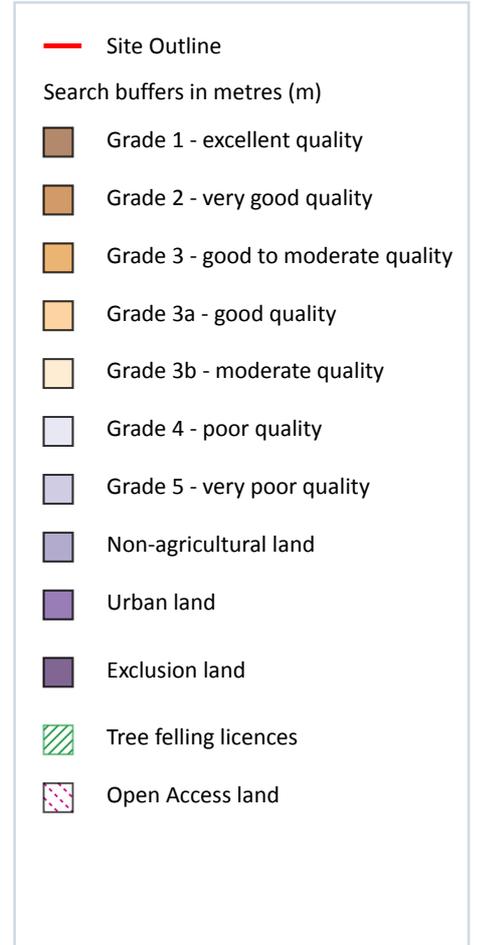
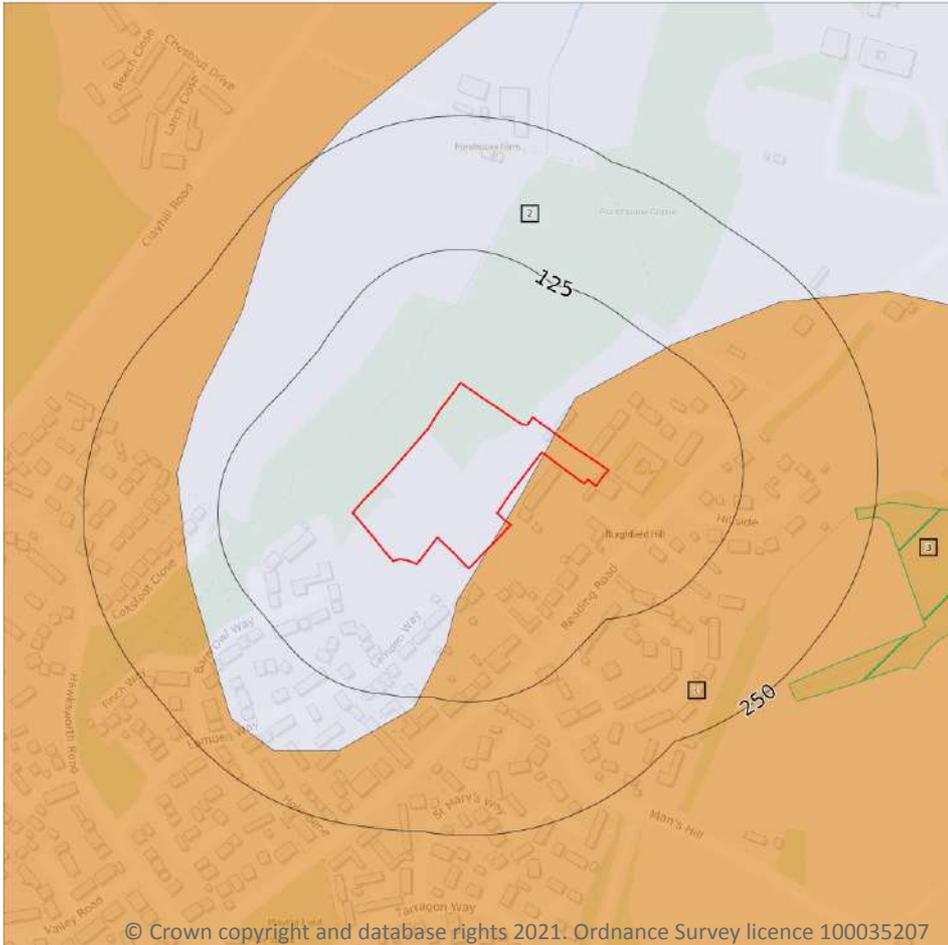
**Records within 250m**

**0**

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

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

## 12 Agricultural designations



### 12.1 Agricultural Land Classification

Records within 250m

2

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 62**

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

ID	Location	Classification	Description
2	On site	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

*This data is sourced from Natural England.*

## 12.2 Open Access Land

<b>Records within 250m</b>	<b>0</b>
----------------------------	----------

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.

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

## 12.3 Tree Felling Licences

<b>Records within 250m</b>	<b>1</b>
----------------------------	----------

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.

Features are displayed on the Agricultural designations map on **page 62**

ID	Location	Description	Reference	Application date
3	232m E	Selective Fell/Thin (Unconditional)	019/171/11-12	31/08/2011

*This data is sourced from the Forestry Commission.*

## 12.4 Environmental Stewardship Schemes

<b>Records within 250m</b>	<b>2</b>
----------------------------	----------

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

Location	Reference	Scheme	Start Date	End date
74m NW	AG00486351	Entry Level Stewardship	01/08/2013	31/07/2018



Location	Reference	Scheme	Start Date	End date
229m N	AG00486351	Entry Level Stewardship	01/08/2013	31/07/2018

*This data is sourced from Natural England.*

## 12.5 Countryside Stewardship Schemes

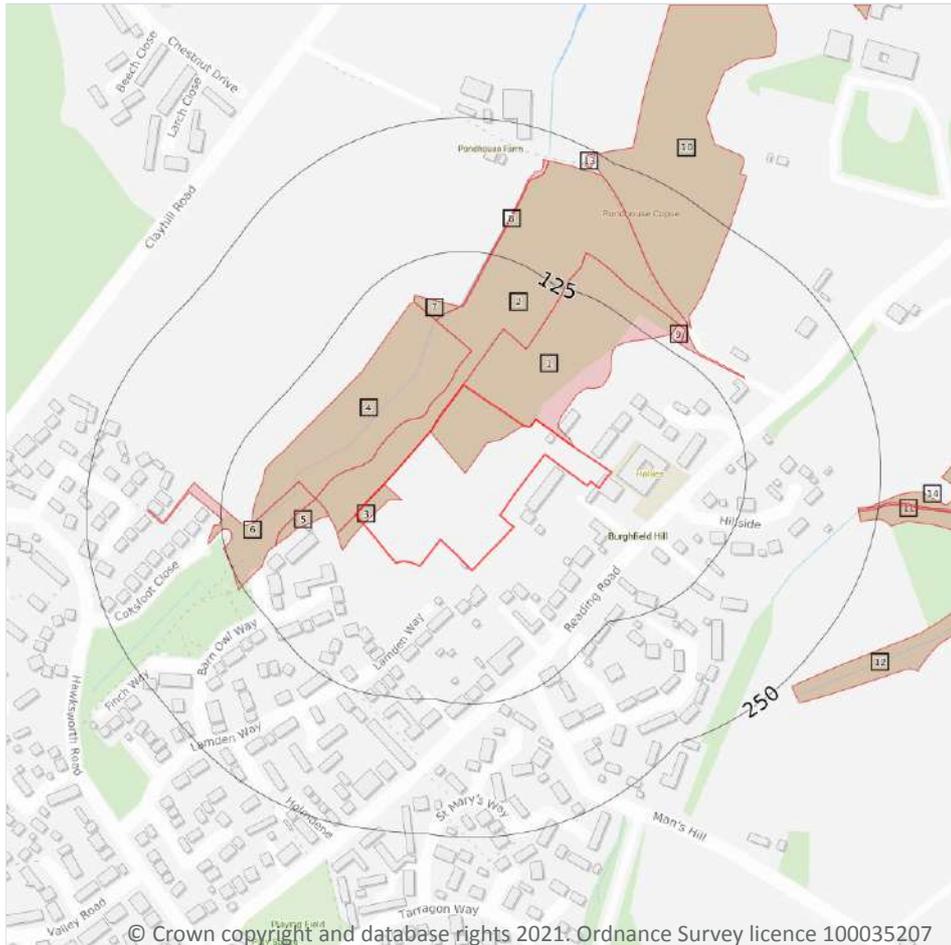
<b>Records within 250m</b>	<b>5</b>
----------------------------	----------

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.

Location	Reference	Scheme	Start Date	End Date
29m N	624492	Countryside Stewardship (Higher Tier)	01/01/2019	31/12/2023
74m N	645474	Countryside Stewardship (Middle Tier)	01/01/2019	31/12/2023
120m NW	645474	Countryside Stewardship (Middle Tier)	01/01/2019	31/12/2023
193m SE	810148	Countryside Stewardship (Middle Tier)	01/01/2020	31/12/2024
229m N	645474	Countryside Stewardship (Middle Tier)	01/01/2019	31/12/2023

*This data is sourced from Natural England.*

## 13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

### 13.1 Priority Habitat Inventory

Records within 250m

14

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

Features are displayed on the Habitat designations map on **page 65**

ID	Location	Main Habitat	Other habitats
1	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	On site	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	11m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
5	25m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	40m W	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	66m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
8	74m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
9	135m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
10	153m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
11	231m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
12	232m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
13	234m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
14	240m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

*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



### 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 68**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SU66NE

*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)

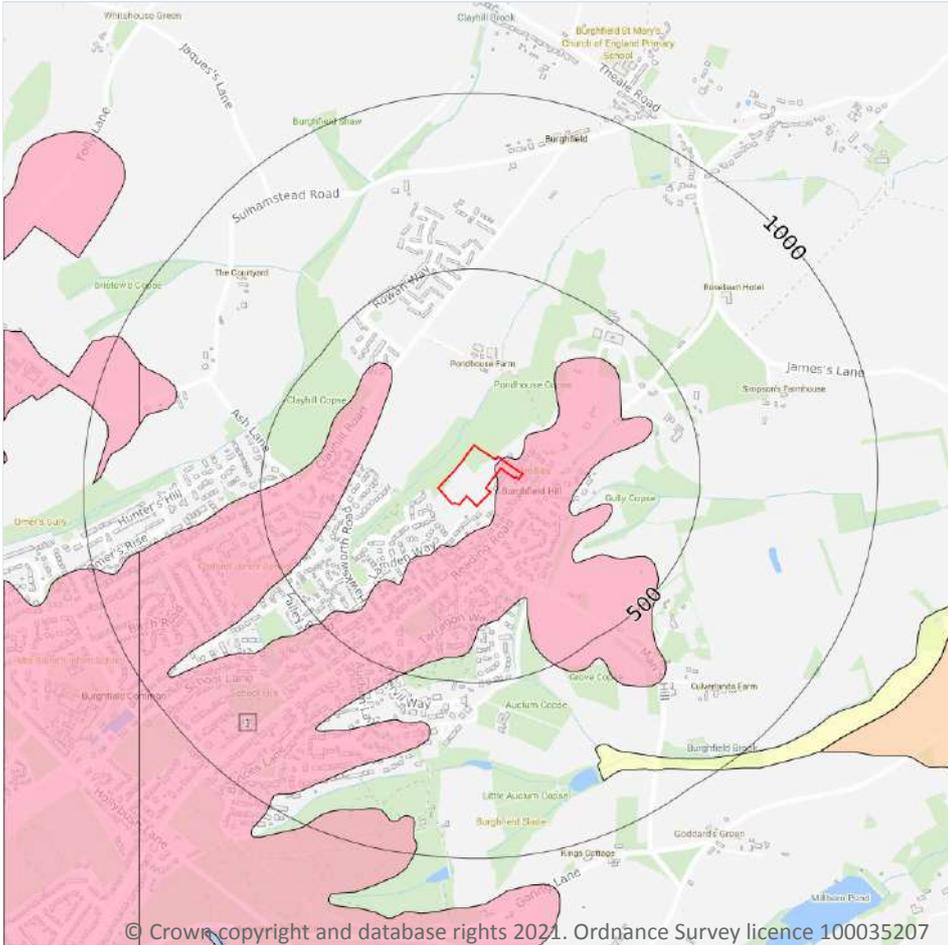
Records within 500m

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

1

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 70**

ID	Location	LEX Code	Description	Rock description
1	On site	SIGR-XSV	Silchester Gravel Member - Sand And Gravel	Sand And Gravel

*This data is sourced from the British Geological Survey.*

## 14.4 Landslip (10k)

Records within 500m

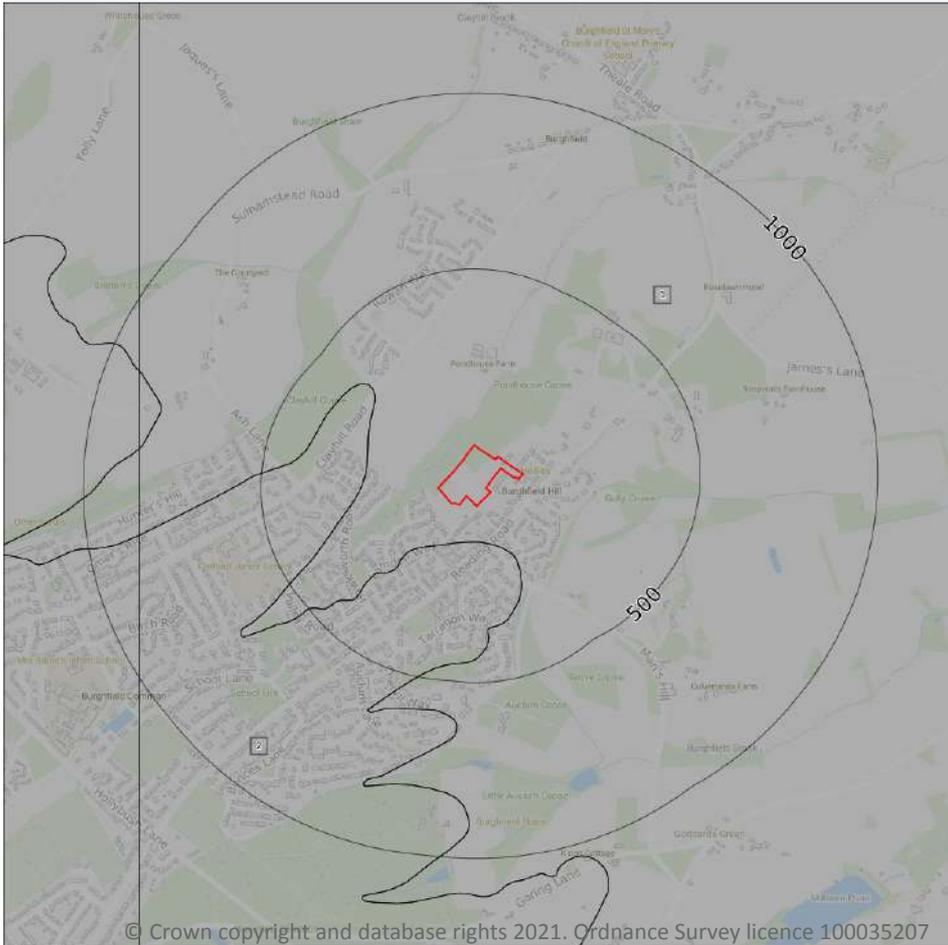
0

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 72**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-CLISA	London Clay Formation - Clay, Silt And Sand	Eocene Epoch
2	101m S	LC-SANDU	London Clay Formation - Sand	Eocene Epoch

*This data is sourced from the British Geological Survey.*

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

Records within 500m

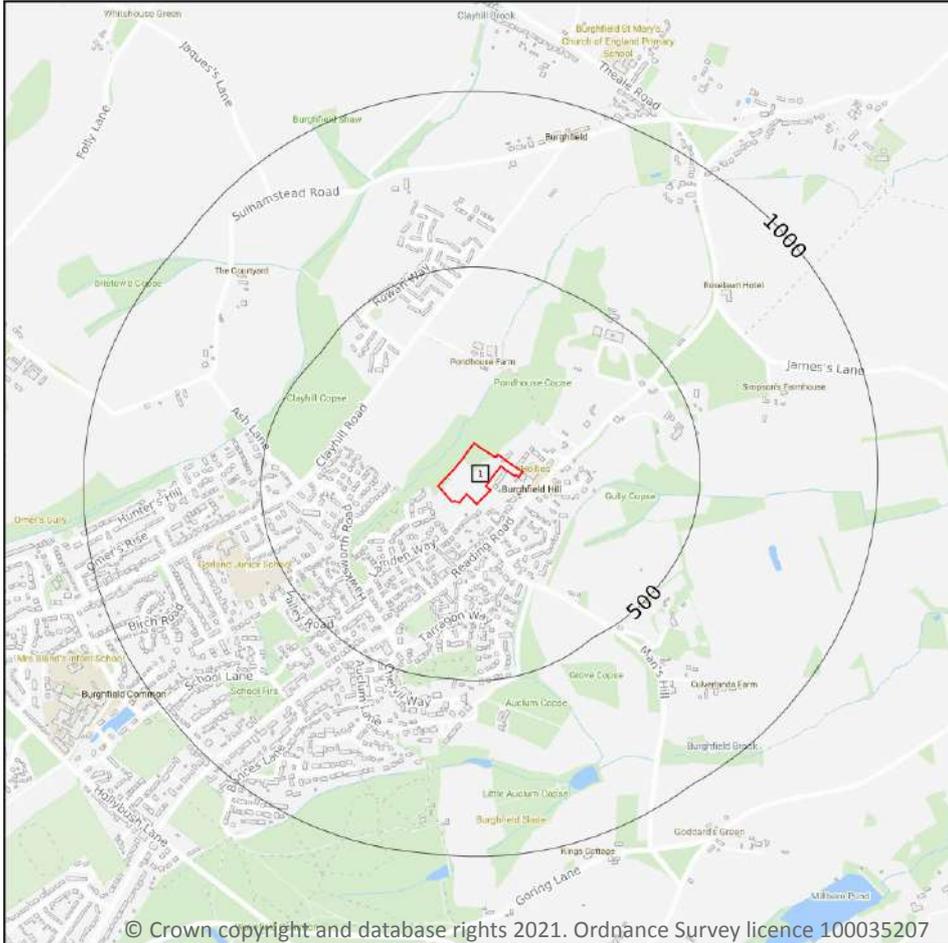
0

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 74](#)

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	EW268_reading_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

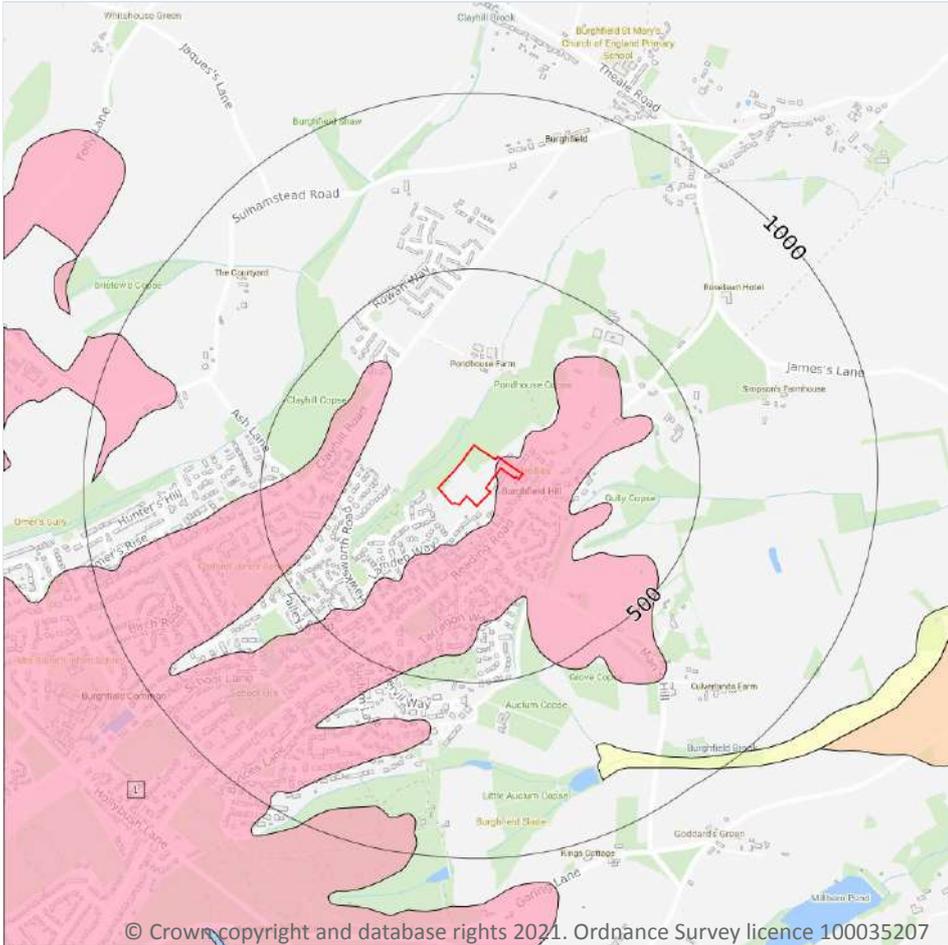
0

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

1

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 76**

ID	Location	LEX Code	Description	Rock description
1	On site	SIGR-XSV	SILCHESTER GRAVEL MEMBER	SAND AND GRAVEL

*This data is sourced from the British Geological Survey.*

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	Very High	High

*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.*

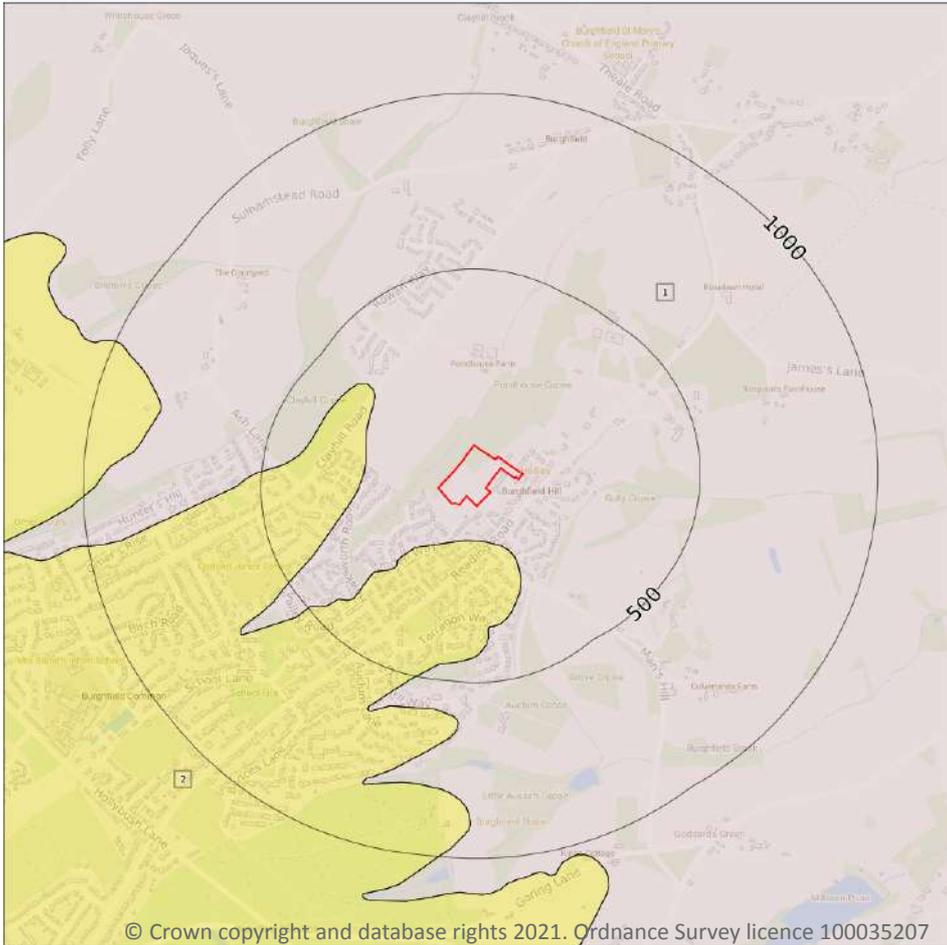
## 15.7 Landslip permeability (50k)

**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 78**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN
2	97m S	LC-S	LONDON CLAY FORMATION - SAND	YPRESIAN

*This data is sourced from the British Geological Survey.*

## 15.9 Bedrock permeability (50k)

<b>Records within 50m</b>	<b>1</b>
---------------------------	----------

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
<b>On site</b>	<b>Mixed</b>	<b>Moderate</b>	<b>Very Low</b>

*This data is sourced from the British Geological Survey.*

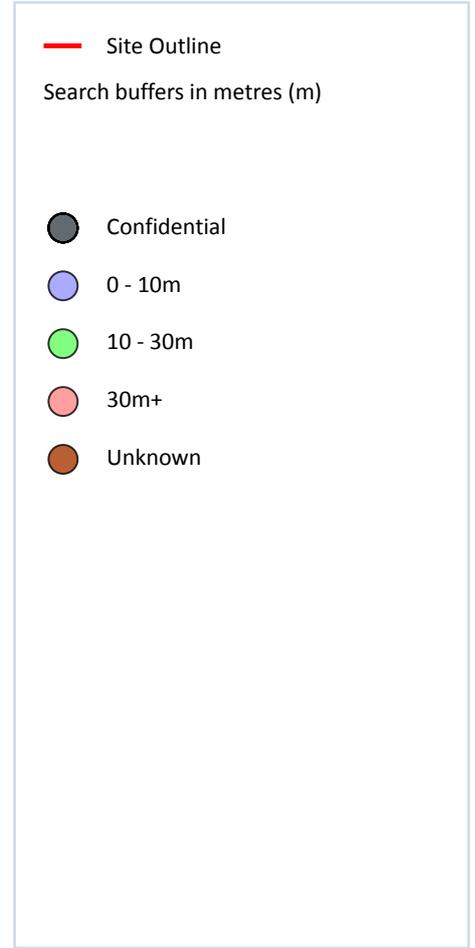
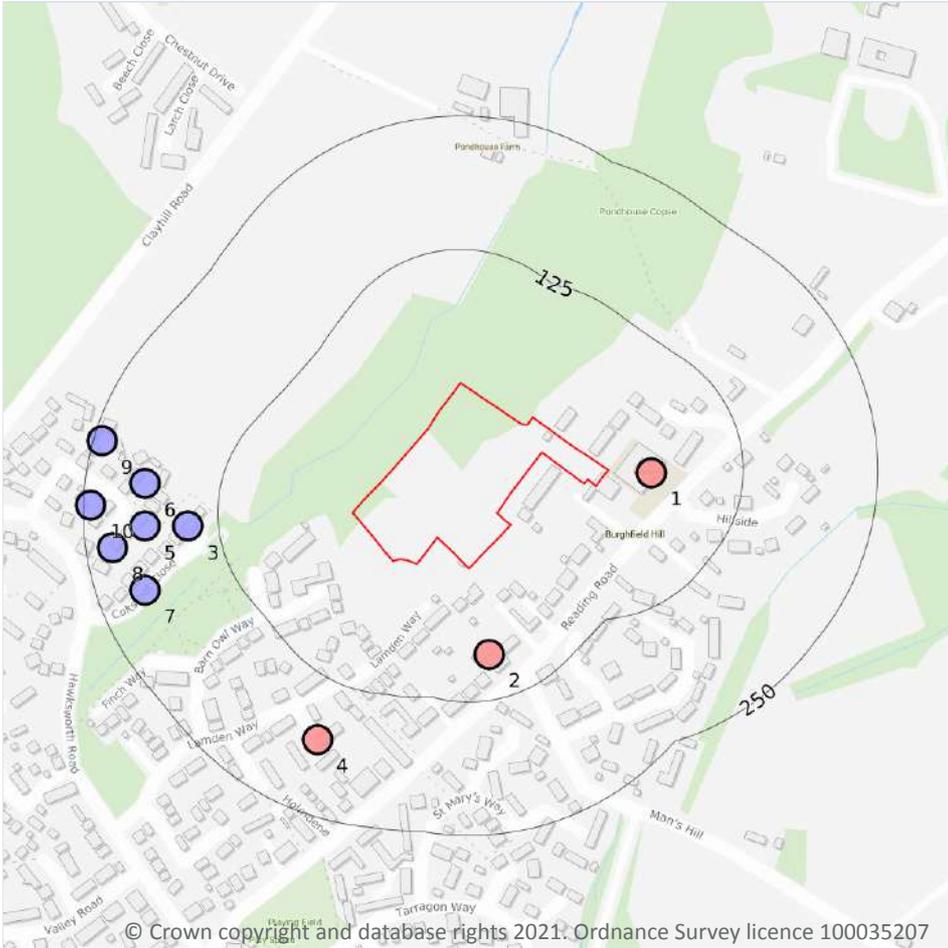
## 15.10 Bedrock faults and other linear features (50k)

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

10

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

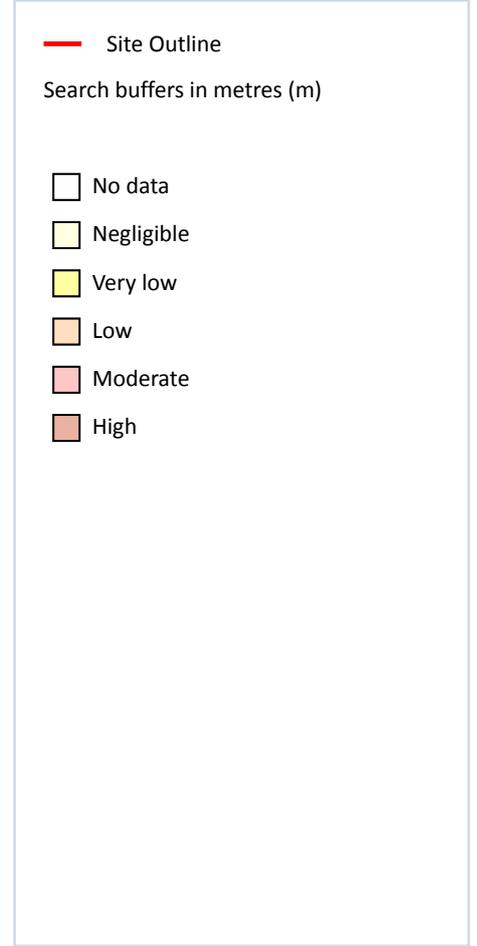
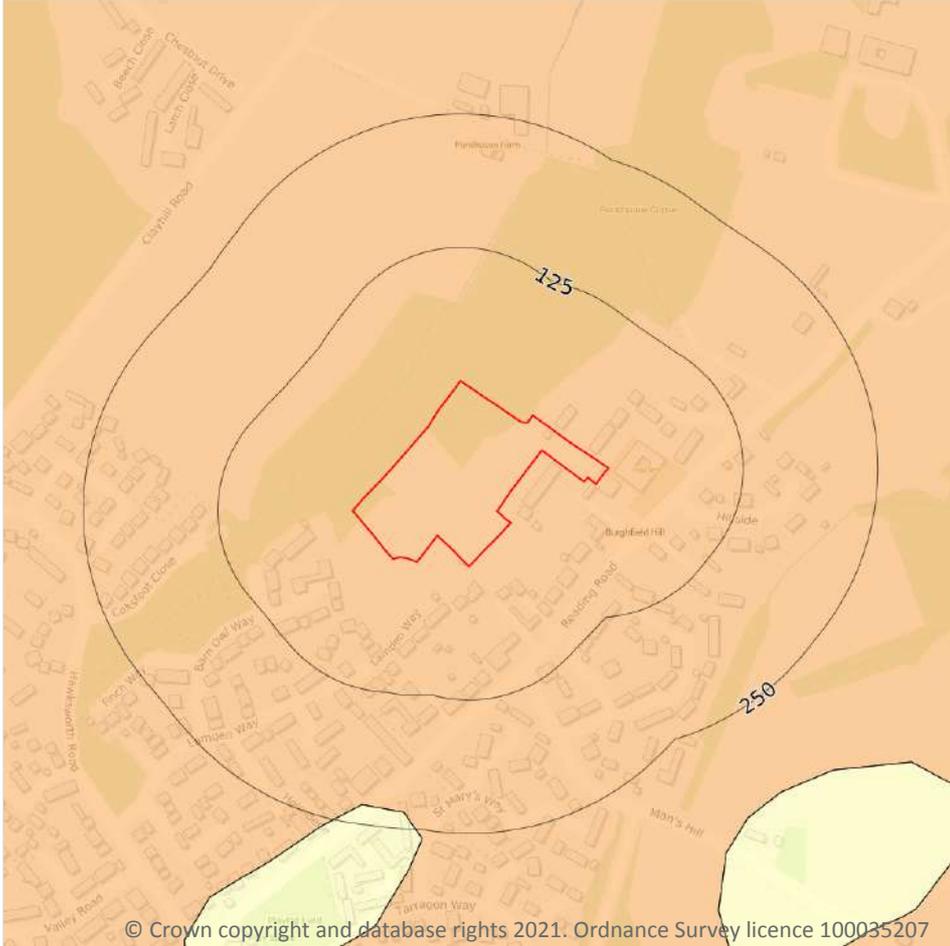
Features are displayed on the Boreholes map on **page 80**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	40m E	466120 167500	THE HOLLIES BURGHELD	64.31	N	<a href="#">422473</a>
2	83m S	465970 167330	THE POPLARS BURGHELD	113.99	N	<a href="#">422474</a>

ID	Location	Grid reference	Name	Length	Confidential	Web link
3	153m W	465690 167450	SCRATCHFACE COPSE BURGHELD COMMON TP14	2.1	N	<a href="#">15047632</a>
4	182m SW	465810 167250	HOME CLOSE BURGHELD	115.82	N	<a href="#">422477</a>
5	193m W	465650 167450	SCRATCHFACE COPSE BURGHELD COMMON BH3	6.0	N	<a href="#">15047618</a>
6	195m W	465650 167490	SCRATCHFACE COPSE BURGHELD COMMON TP13	2.1	N	<a href="#">15047631</a>
7	206m W	465650 167390	SCRATCHFACE COPSE BURGHELD COMMON TP17	2.1	N	<a href="#">15047635</a>
8	225m W	465620 167430	SCRATCHFACE COPSE BURGHELD COMMON TP16	2.3	N	<a href="#">15047634</a>
9	242m W	465610 167530	SCRATCHFACE COPSE BURGHELD COMMON TP12	2.0	N	<a href="#">15047630</a>
10	243m W	465600 167470	SCRATCHFACE COPSE BURGHELD COMMON TP15	2.2	N	<a href="#">15047633</a>

*This data is sourced from the British Geological Survey.*

## 17 Natural ground subsidence - Shrink swell clays



### 17.1 Shrink swell clays

Records within 50m

1

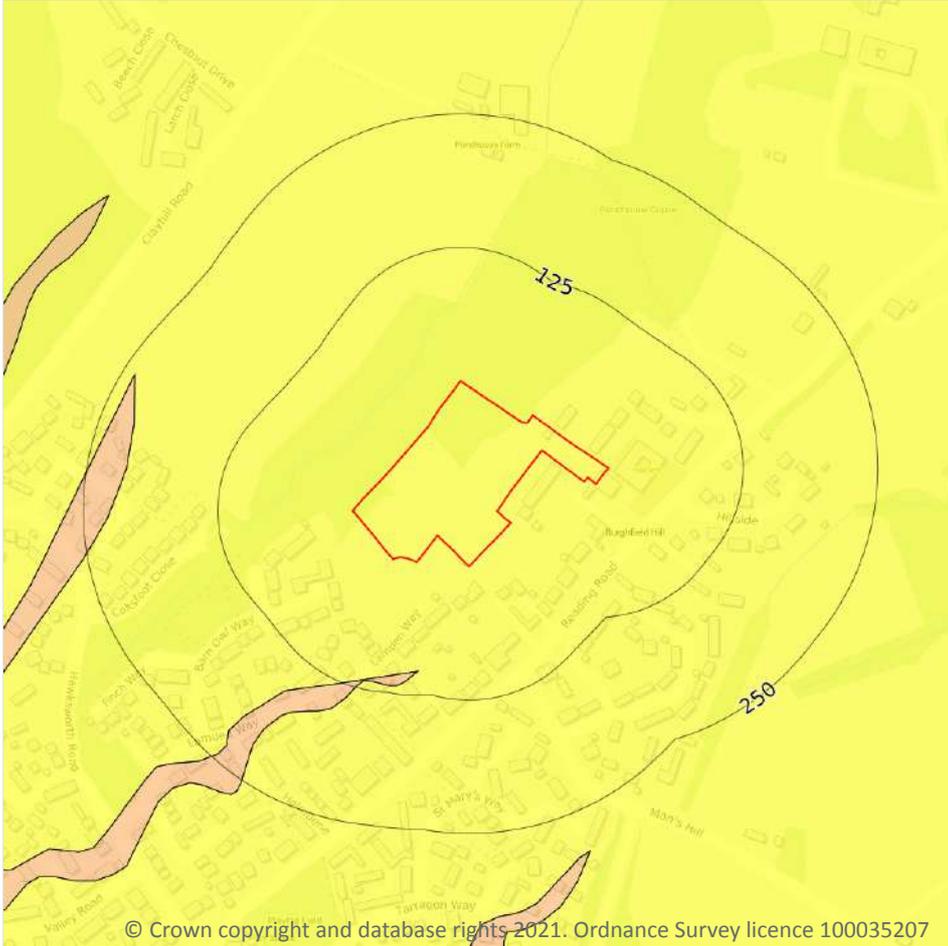
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 82**

Location	Hazard rating	Details
On site	Low	Ground conditions predominantly medium plasticity.

*This data is sourced from the British Geological Survey.*

## Natural ground subsidence - Running sands



— Site Outline  
Search buffers in metres (m)

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

### 17.2 Running sands

Records within 50m

1

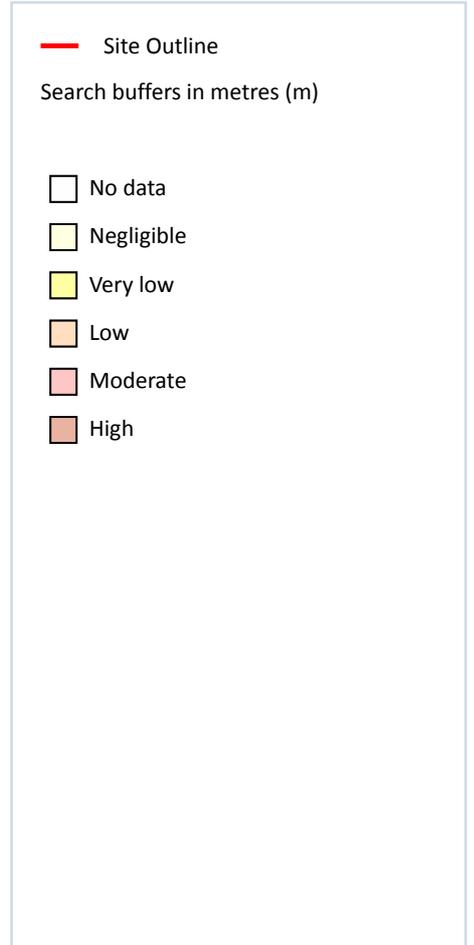
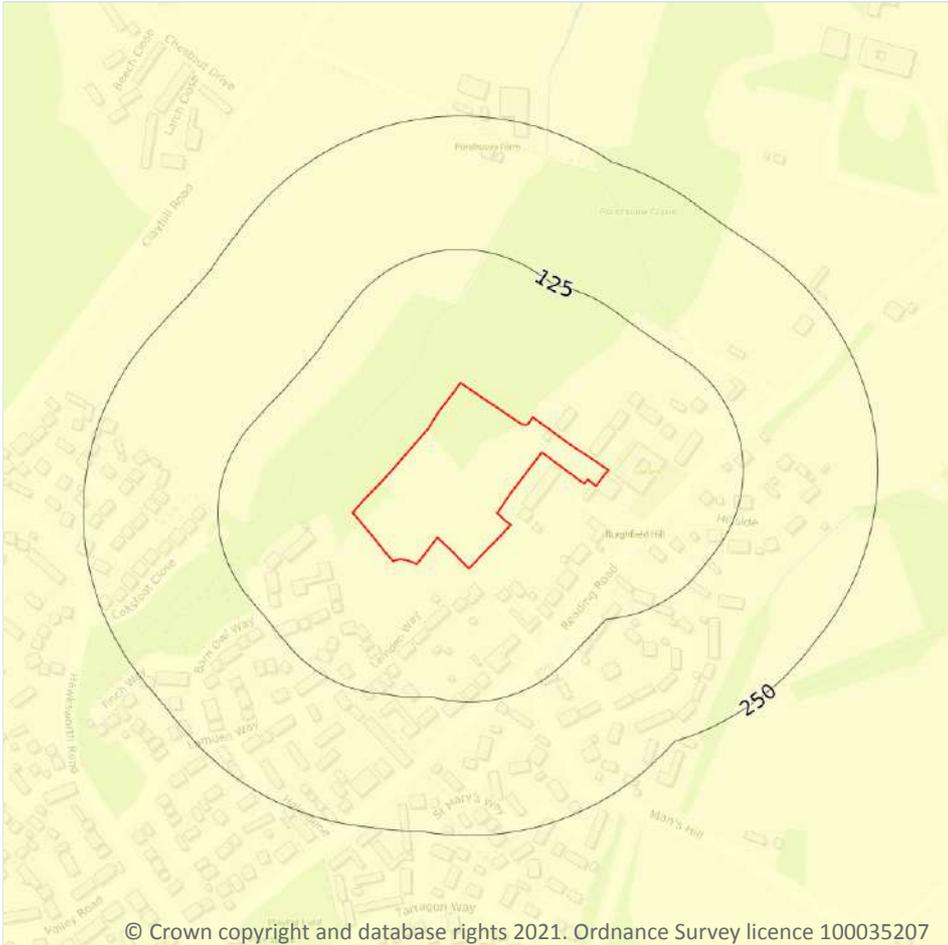
The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on **page 83**

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



### 17.3 Compressible deposits

Records within 50m

1

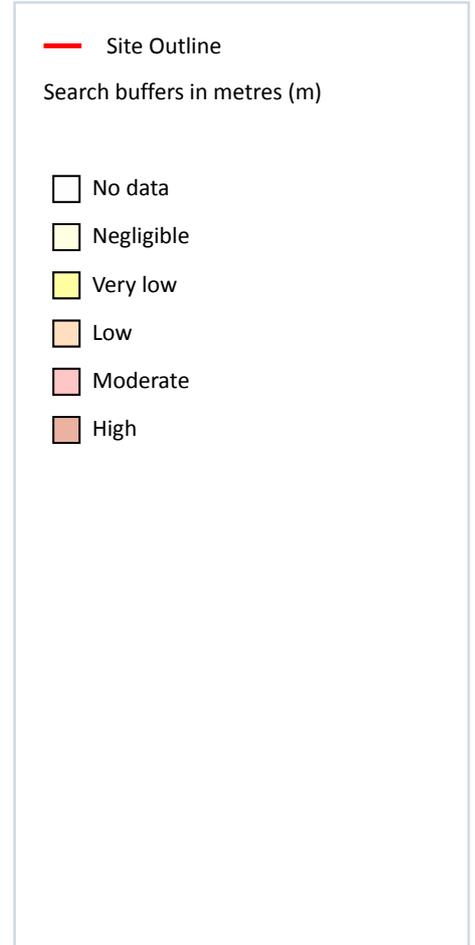
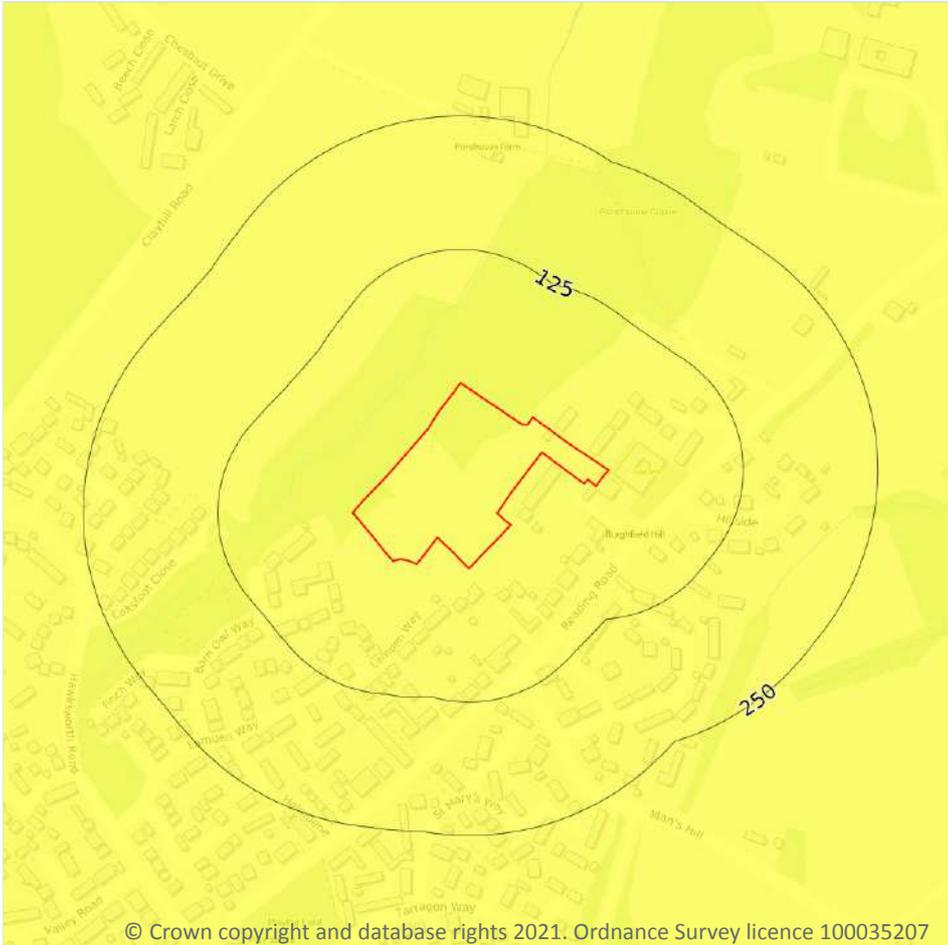
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 84**

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



### 17.4 Collapsible deposits

Records within 50m

1

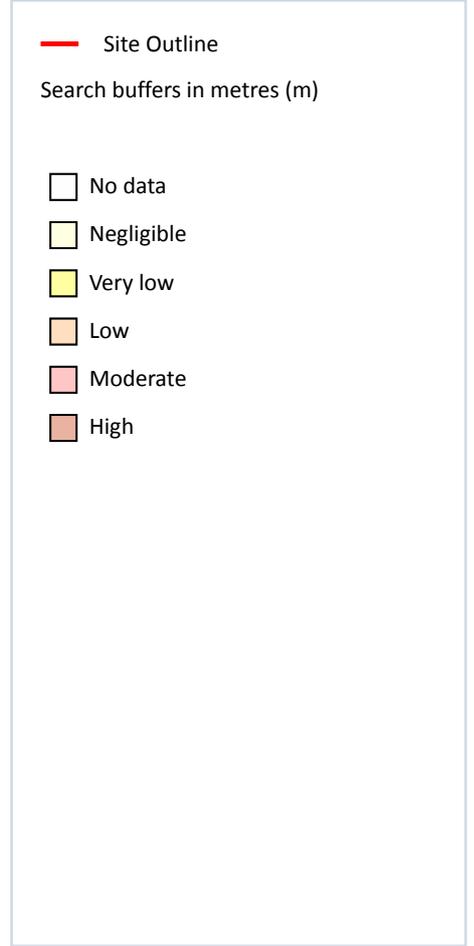
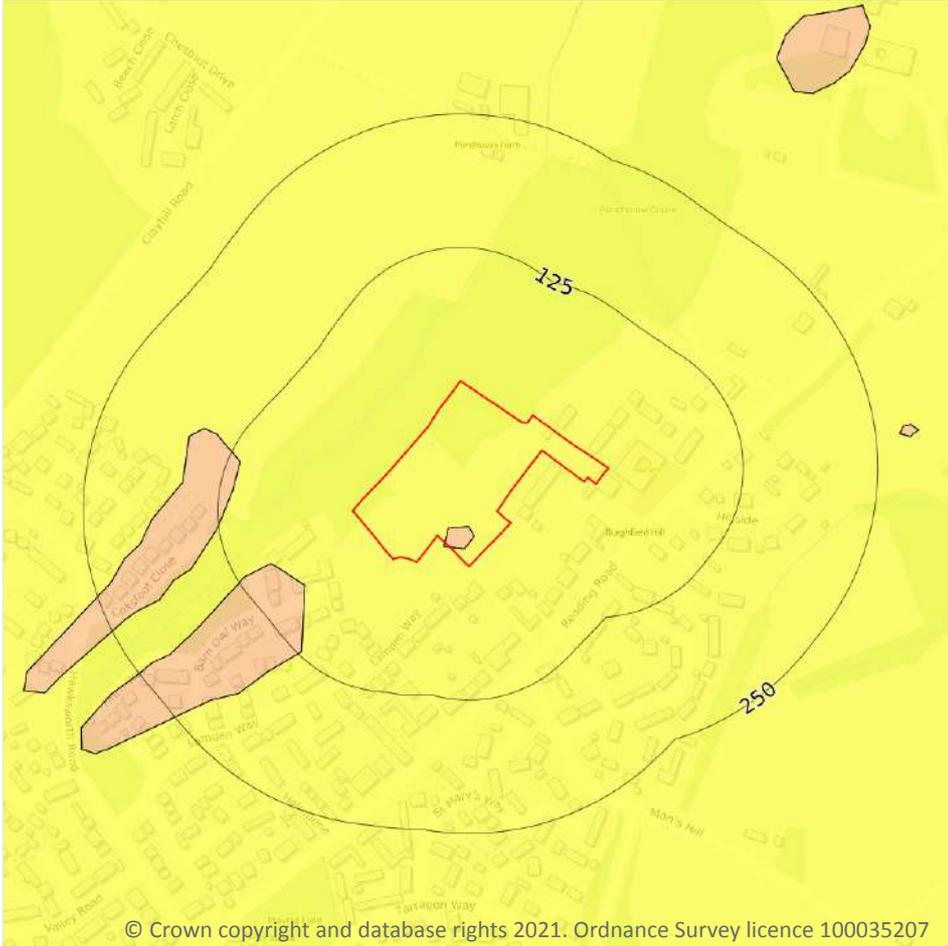
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 85**

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



### 17.5 Landslides

Records within 50m

2

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 86**

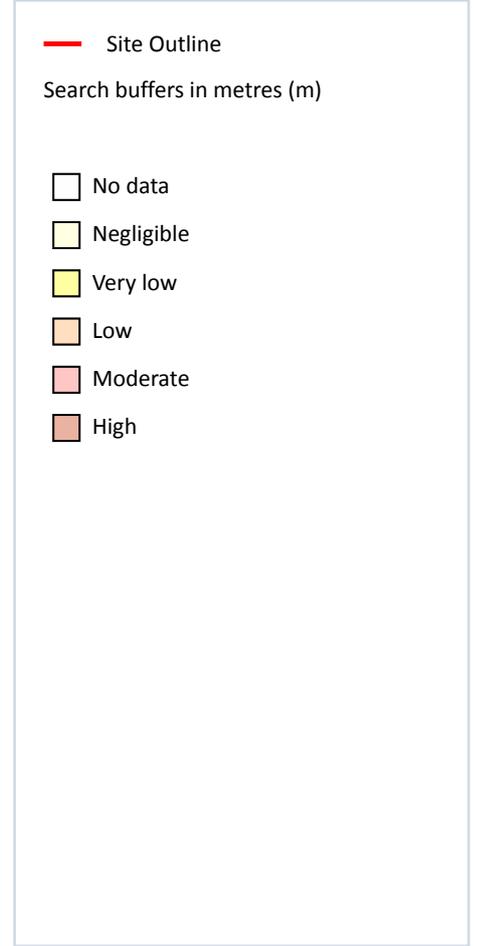
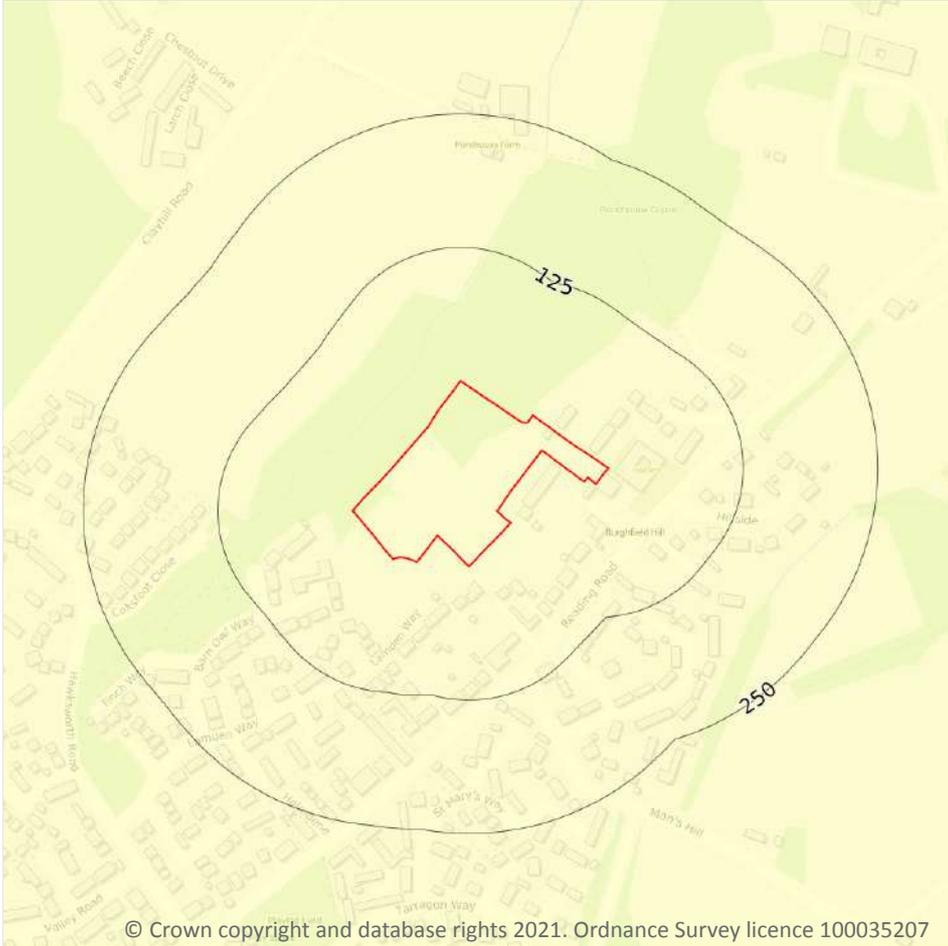
Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.

*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

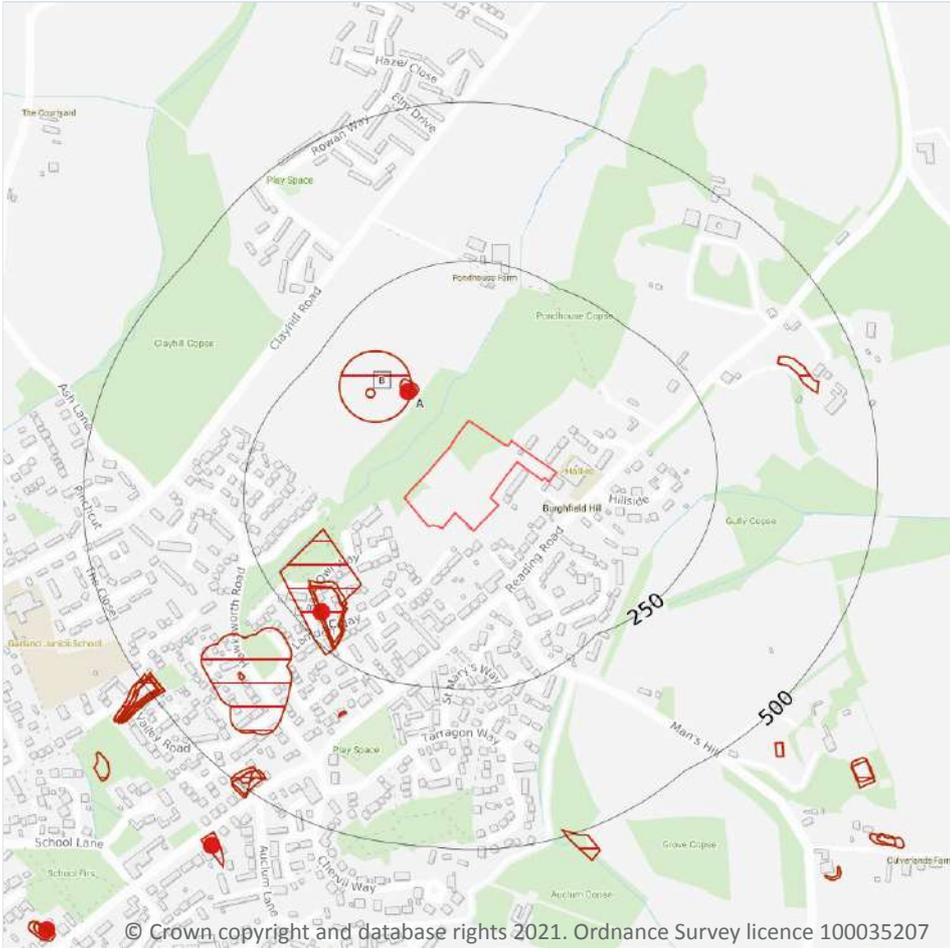
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 88**

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 Stantec UK Ltd.*

## 18.2 BritPits

### Records within 500m

**2**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 89**

ID	Location	Details	Description
A	102m NW	Name: Clay Hill Gravel Pit Address: Burghfield, READING, Berkshire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	213m SW	Name: Burghfield Hill Brick Works Address: Burghfield Hill, READING, Berkshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

*This data is sourced from the British Geological Survey.*

## 18.3 Surface ground workings

### Records within 250m

**7**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 89**

ID	Location	Land Use	Year of mapping	Mapping scale
A	90m NW	Old Gravel Pit	1898	1:10560
B	92m NW	Old Gravel Pit	1938	1:10560
C	132m SW	Brick Works	1900	1:10560
B	142m NW	Old Gravel Pit	1913	1:10560
C	167m SW	Unspecified Pit	1956	1:10560
C	176m SW	Unspecified Pit	1900	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
C	176m SW	Old Clay Pit	1910	1:10560

*This is data is sourced from Ordnance Survey/Groundsure.*

## 18.4 Underground workings

**Records within 1000m** **0**

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

*This is data is sourced from Ordnance Survey/Groundsure.*

## 18.5 Historical Mineral Planning Areas

**Records within 500m** **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 Stantec UK Ltd.*



## 18.8 JPB mining areas

Records on site	0
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Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

*This data is sourced from Johnson Poole and Bloomer.*

## 18.9 Coal mining

Records on site	0
-----------------	---

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

*This data is sourced from the Coal Authority.*

## 18.10 Brine areas

Records on site	0
-----------------	---

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

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

## 18.11 Gypsum areas

Records on site	0
-----------------	---

Generalised areas that may be affected by gypsum extraction.

*This data is sourced from British Gypsum.*

## 18.12 Tin mining

Records on site	0
-----------------	---

Generalised areas that may be affected by historical tin mining.

*This data is sourced from Groundsure.*

## 18.13 Clay mining

Records on site

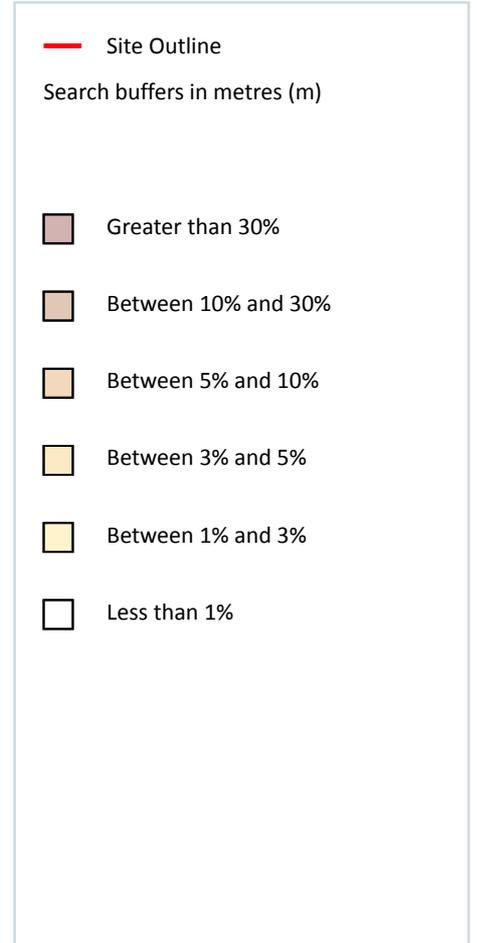
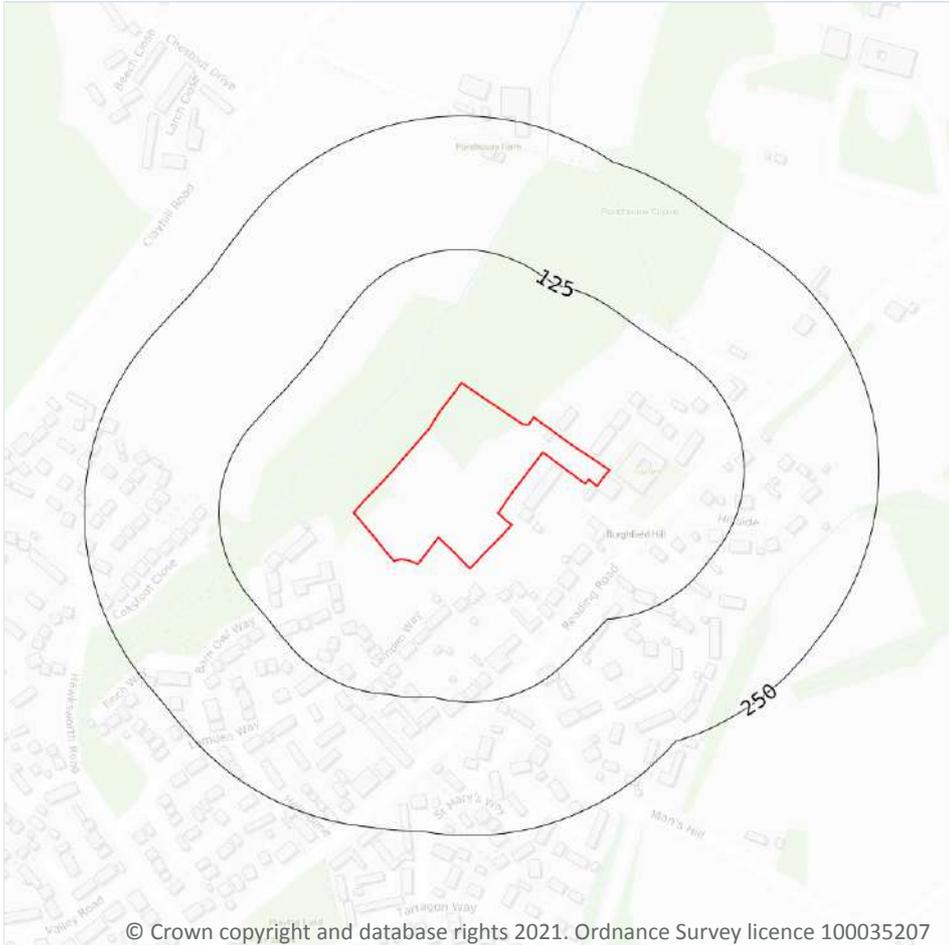
0

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

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



## 19 Radon



### 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 94](#)

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

7

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
44m S	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 km<sup>2</sup>).

*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 km<sup>2</sup>.

*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

<b>Records within 250m</b>	<b>0</b>
----------------------------	----------

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

*This data is sourced from OpenStreetMap.*

## 21.7 Railways

<b>Records within 250m</b>	<b>0</b>
----------------------------	----------

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

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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

<b>Records within 500m</b>	<b>0</b>
----------------------------	----------

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.*



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## Data providers

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

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