ID	Location	Details	
-	1227m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: BENJAMIN SHAW & SONS LTD Easting: 414210 Northing: 417870	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1999 Version End Date: -
-	1227m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE - MILLSTONE GRIT Data Type: Point Name: BRITVIC SOFT DRINKS LTD Easting: 414210 Northing: 417870	Annual Volume (m^3): 360000 Max Daily Volume (m^3): 1200 Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 101 Version Start Date: 01/11/2004 Version End Date: -
-	1227m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE-MILLSTONE GRIT- HUDDERSFIELD Data Type: Point Name: BRITVIC SOFT DRINKS PLC Easting: 414210 Northing: 417870	Annual Volume (m^3): 90920 Max Daily Volume (m^3): 636.4 Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2009 Version End Date: -
-	1489m SW	Status: Historical Licence No: 2/27/11/190 Details: Process Water Direct Source: GROUNDWATERS Point: BOREHOLE-MILLSTONE GRIT-HUDDERSFIELD Data Type: Point Name: SKA TEXTILES LTD Easting: 413830 Northing: 416110	Annual Volume (m^3): 465000 Max Daily Volume (m^3): 1272 Original Application No: - Original Start Date: 04/02/2005 Expiry Date: 31/12/2010 Issue No: 2 Version Start Date: 18/04/2006 Version End Date: -
-	1561m SW	Status: Historical Licence No: NE/027/0011/006 Details: Process Water Direct Source: GROUNDWATERS Point: BOREHOLE-MILLSTONE GRIT-HUDDERSFIELD Data Type: Point Name: SKA TEXTILES LTD Easting: 413794 Northing: 416036	Annual Volume (m^3): 200000 Max Daily Volume (m^3): 1272 Original Application No: - Original Start Date: 06/01/2011 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 06/01/2011 Version End Date: -

ID	Location	Details	
-	1776m NE	Status: Historical Licence No: 2/27/11/060 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: GROUNDWATERS Point: BOREHOLE 2 - MILLSTONE GRIT - HUDDERSFIELD Data Type: Point Name: SYNGENTA LTD Easting: 416370 Northing: 418200	Annual Volume (m^3): 881941 Max Daily Volume (m^3): 1091.06 Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 23/06/2017 Version End Date: -
-	1776m NE	Status: Historical Licence No: 2/27/11/060 Details: Process Water Direct Source: GROUNDWATERS Point: BOREHOLE 2 - MILLSTONE GRIT - HUDDERSFIELD Data Type: Point Name: SYNGENTA LTD Easting: 416370 Northing: 418200	Annual Volume (m^3): 881941 Max Daily Volume (m^3): 1091.06 Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 23/06/2017 Version End Date: -
-	1990m NE	Status: Historical Licence No: 2/27/11/060 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: GROUNDWATERS Point: BOREHOLE 1 - MILLSTONE GRIT - HUDDERSFIELD Data Type: Point Name: SYNGENTA LTD Easting: 416690 Northing: 418150	Annual Volume (m^3): 881941 Max Daily Volume (m^3): 1091.06 Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 23/06/2017 Version End Date: -
-	1990m NE	Status: Historical Licence No: 2/27/11/060 Details: Process Water Direct Source: GROUNDWATERS Point: BOREHOLE 1 - MILLSTONE GRIT - HUDDERSFIELD Data Type: Point Name: SYNGENTA LTD Easting: 416690 Northing: 418150	Annual Volume (m^3): 881941 Max Daily Volume (m^3): 1091.06 Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 103 Version Start Date: 23/06/2017 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	19

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 73 >**

ID	Location	Details	
2	617m SW	Status: Historical Licence No: 2/27/11/160 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD CANAL Data Type: Point Name: BRITISH WATERWAYS BOARD Easting: 414800 Northing: 416400	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/03/1974 Expiry Date: - Issue No: 100 Version Start Date: 17/11/1993 Version End Date: -
3	631m S	Status: Historical Licence No: 2/27/11/160 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD CANAL Data Type: Point Name: Canal and River Trust Easting: 414870 Northing: 416360	Annual Volume (m^3): 700000 Max Daily Volume (m^3): 3600 Original Application No: - Original Start Date: 01/03/1974 Expiry Date: - Issue No: 102 Version Start Date: 21/01/2008 Version End Date: -
-	672m NW	Status: Historical Licence No: 2/27/11/182 Details: General use relating to Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD BROAD CANAL Data Type: Point Name: BRITISH WATERWAYS Easting: 414800 Northing: 417600	Annual Volume (m^3): 170000 Max Daily Volume (m^3): 750 Original Application No: - Original Start Date: 10/07/1998 Expiry Date: 31/12/2006 Issue No: 100 Version Start Date: 10/07/1998 Version End Date: -

ID	Location	Details	
-	723m S	Status: Historical Licence No: 2/27/11/175 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD NARROW CANAL Data Type: Line Name: Canal and River Trust Easting: 414690 Northing: 416080	Annual Volume (m^3): 1250000 Max Daily Volume (m^3): 3960 Original Application No: - Original Start Date: 22/09/1994 Expiry Date: - Issue No: 103 Version Start Date: 21/01/2008 Version End Date: -
-	747m S	Status: Active Licence No: NE/027/0011/023 Details: Supply To A Canal For Throughflow Direct Source: SURFACE WATER Point: RIVER COLNE AT ASPLEY, HUDDERSFIELD Data Type: Point Name: Canal and River Trust Easting: 414997 Northing: 416219	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/NA/000948 Original Start Date: 31/03/2021 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 31/03/2021 Version End Date: -
-	815m N	Status: Active Licence No: 2/27/11/158 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD BROAD CANAL - HUDERSFIELD INCINERATOR Data Type: Point Name: Canal and River Trust Easting: 414830 Northing: 417760	Annual Volume (m^3): 273000 Max Daily Volume (m^3): 1090 Original Application No: 5182 Original Start Date: 27/10/1972 Expiry Date: - Issue No: 103 Version Start Date: 21/01/2008 Version End Date: -
-	815m N	Status: Historical Licence No: 2/27/11/158 Details: General use relating to Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD BROAD CANAL Data Type: Point Name: BRITISH WATERWAYS BOARD Easting: 414830 Northing: 417760	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/10/1972 Expiry Date: - Issue No: 102 Version Start Date: 26/10/1999 Version End Date: -

ID	Location	Details	
-	874m S	Status: Historical Licence No: 2/27/11/175 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD NARROW CANAL Data Type: Line Name: BRITISH WATERWAYS BOARD Easting: 414650 Northing: 416010	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/09/1994 Expiry Date: - Issue No: 101 Version Start Date: 10/03/2003 Version End Date: -
-	1026m N	Status: Active Licence No: 2/27/11/131 Details: Process Water Direct Source: SURFACE WATER Point: HUDDERSFIELD CANAL Data Type: Point Name: Canal and River Trust Easting: 415000 Northing: 418000	Annual Volume (m^3): 400000 Max Daily Volume (m^3): 1800 Original Application No: 2266 Original Start Date: 26/05/1966 Expiry Date: - Issue No: 101 Version Start Date: 21/01/2008 Version End Date: -
-	1026m N	Status: Active Licence No: 2/27/11/131 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD CANAL Data Type: Point Name: Canal and River Trust Easting: 415000 Northing: 418000	Annual Volume (m^3): 400000 Max Daily Volume (m^3): 1800 Original Application No: 2266 Original Start Date: 26/05/1966 Expiry Date: - Issue No: 101 Version Start Date: 21/01/2008 Version End Date: -
-	1026m N	Status: Historical Licence No: 2/27/11/131 Details: General use relating to Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD CANAL Data Type: Point Name: BRITISH WATERWAYS Easting: 415000 Northing: 418000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 26/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1993 Version End Date: -

ID	Location	Details	
-	1026m N	Status: Historical Licence No: 2/27/11/131 Details: General use relating to Secondary Category (Very Low Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD CANAL Data Type: Point Name: BRITISH WATERWAYS Easting: 415000 Northing: 418000	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 26/05/1966 Expiry Date: - Issue No: 100 Version Start Date: 17/02/1993 Version End Date: -
-	1035m SW	Status: Historical Licence No: 2/27/11/175 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: HUDDERSFIELD NARROW CANAL Data Type: Line Name: BRITISH WATERWAYS BOARD Easting: 414650 Northing: 416010	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 22/09/1994 Expiry Date: - Issue No: 100 Version Start Date: 22/09/1994 Version End Date: -
-	1236m SW	Status: Active Licence No: NE/027/0011/011 Details: Non-Evaporative Cooling Direct Source: SURFACE WATER Point: HUDDERSFIELD NARROW CANAL Data Type: Point Name: Canal and River Trust Easting: 414179 Northing: 416087	Annual Volume (m^3): 1684800 Max Daily Volume (m^3): 7560 Original Application No: NPS/WR/008366 Original Start Date: 24/04/2012 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 24/04/2012 Version End Date: -
-	1441m SW	Status: Historical Licence No: 2/27/10/009 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: RIVER HOLME Data Type: Point Name: TAYLOR & LODGE LTD Easting: 414200 Northing: 415800	Annual Volume (m^3): 54552 Max Daily Volume (m^3): 327.312 Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -

ID	Location	Details	
-	1441m SW	Status: Historical Licence No: 2/27/10/009 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: RIVER HOLME - HUDDERSFIELD Data Type: Point Name: TAYLOR & LODGE LTD Easting: 414200 Northing: 415800	Annual Volume (m^3): 54552 Max Daily Volume (m^3): 327.312 Original Application No: - Original Start Date: 01/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1965 Version End Date: -
-	1834m NE	Status: Active Licence No: 2/27/11/059 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: RIVER COLNE AND TRIBUTARIES - POINT 5 - DALTON WORKS Data Type: Point Name: SYNGENTA LTD Easting: 416330 Northing: 418320	Annual Volume (m^3): 24600000 Max Daily Volume (m^3): 67200 Original Application No: 665 Original Start Date: 27/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 25/07/2002 Version End Date: -
-	1834m NE	Status: Active Licence No: 2/27/11/059 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: SURFACE WATER Point: RIVER COLNE AND TRIBUTARIES - POINT 5 - DALTON WORKS Data Type: Point Name: SYNGENTA LTD Easting: 416330 Northing: 418320	Annual Volume (m^3): 24600000 Max Daily Volume (m^3): 67200 Original Application No: 665 Original Start Date: 27/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 25/07/2002 Version End Date: -
-	1834m NE	Status: Historical Licence No: 2/27/11/059 Details: General use relating to Secondary Category (Medium Loss) Direct Source: SURFACE WATER Point: RIVER COLNE Data Type: Poly3 Name: ZENECA FINE CHEMICAL MANUFACTURING ORGANISATION Easting: 416660 Northing: 418270	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 27/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/04/1985 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	7

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.

Features are displayed on the Abstractions and Source Protection Zones map on **page 73 >**

ID	Location	Details	
-	1075m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: BENJAMIN SHAW & SONS LTD Easting: 414500 Northing: 417900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1999 Version End Date: -
-	1075m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE - MILLSTONE GRIT Data Type: Point Name: BENJAMIN SHAW & SONS LTD Easting: 414500 Northing: 417900	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1999 Version End Date: -
-	1207m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE-MILLSTONE GRIT-HUDDERSFIELD Data Type: Point Name: BRITVIC SOFT DRINKS PLC Easting: 414140 Northing: 417770	Annual Volume (m^3): 90920 Max Daily Volume (m^3): 636.4 Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2009 Version End Date: -
-	1222m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE-MILLSTONE GRIT-HUDDERSFIELD Data Type: Point Name: BRITVIC SOFT DRINKS PLC Easting: 414250 Northing: 417900	Annual Volume (m^3): 90920 Max Daily Volume (m^3): 636.4 Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2009 Version End Date: -

ID	Location	Details	
-	1227m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE Data Type: Point Name: BENJAMIN SHAW & SONS LTD Easting: 414210 Northing: 417870	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 26/03/1999 Version End Date: -
-	1227m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE - MILLSTONE GRIT Data Type: Point Name: BRITVIC SOFT DRINKS LTD Easting: 414210 Northing: 417870	Annual Volume (m^3): 360000 Max Daily Volume (m^3): 1200 Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 101 Version Start Date: 01/11/2004 Version End Date: -
-	1227m NW	Status: Historical Licence No: 2/27/11/023 Details: Water Bottling Direct Source: GROUNDWATERS Point: BOREHOLE-MILLSTONE GRIT- HUDDERSFIELD Data Type: Point Name: BRITVIC SOFT DRINKS PLC Easting: 414210 Northing: 417870	Annual Volume (m^3): 90920 Max Daily Volume (m^3): 636.4 Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2009 Version End Date: -

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	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 88 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
2	120m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Huddersfield Broad Canal

ID	Location	Type of water feature	Ground level	Permanence	Name
5	168m SW	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Huddersfield Broad Canal
B	180m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Colne
7	195m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Colne
B	197m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Colne
C	222m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Colne
C	222m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Colne
9	229m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Colne
10	231m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Colne

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	3

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 88 >**

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 88 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Colne from River Holme to River Calder**	**GB104027062550**	**Colne and Holme**	**Aire and Calder**

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

6.4 WFD Surface water bodies

Records identified	2

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 88 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
3	122m W	Canal	Huddersfield Broad Canal	GB70410176 ↗	Moderate	Fail	Good	2019
8	198m NE	River	Colne from River Holme to River Calder	GB104027062550 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	1

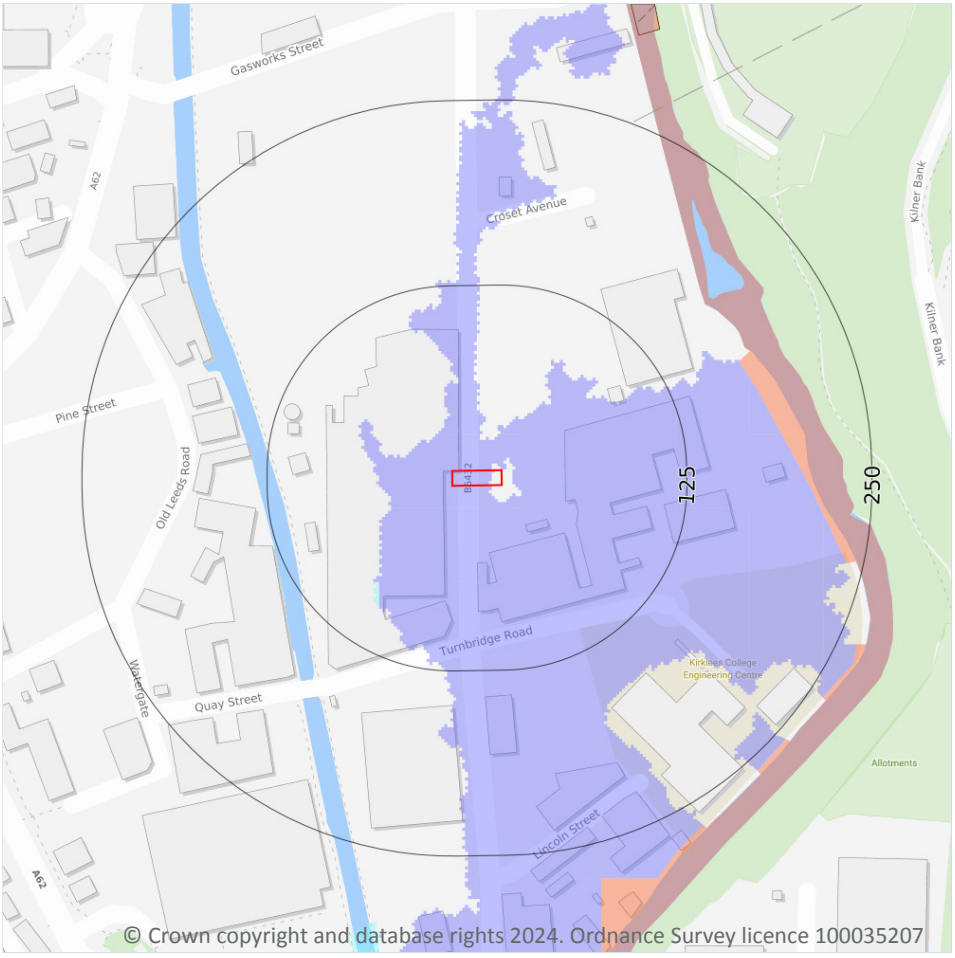
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 88 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Aire & Calder Carb Limestone / Millstone Grit / Coal Measures.**	**GB40402G700400 ↗**	**Poor**	**Poor**	**Good**	**2019**

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low

- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences

- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m	6

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).

Features are displayed on the River and coastal flooding map on **page 92 >**

Distance	Flood risk category
On site	**Medium**
0 - 50m	Medium

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.

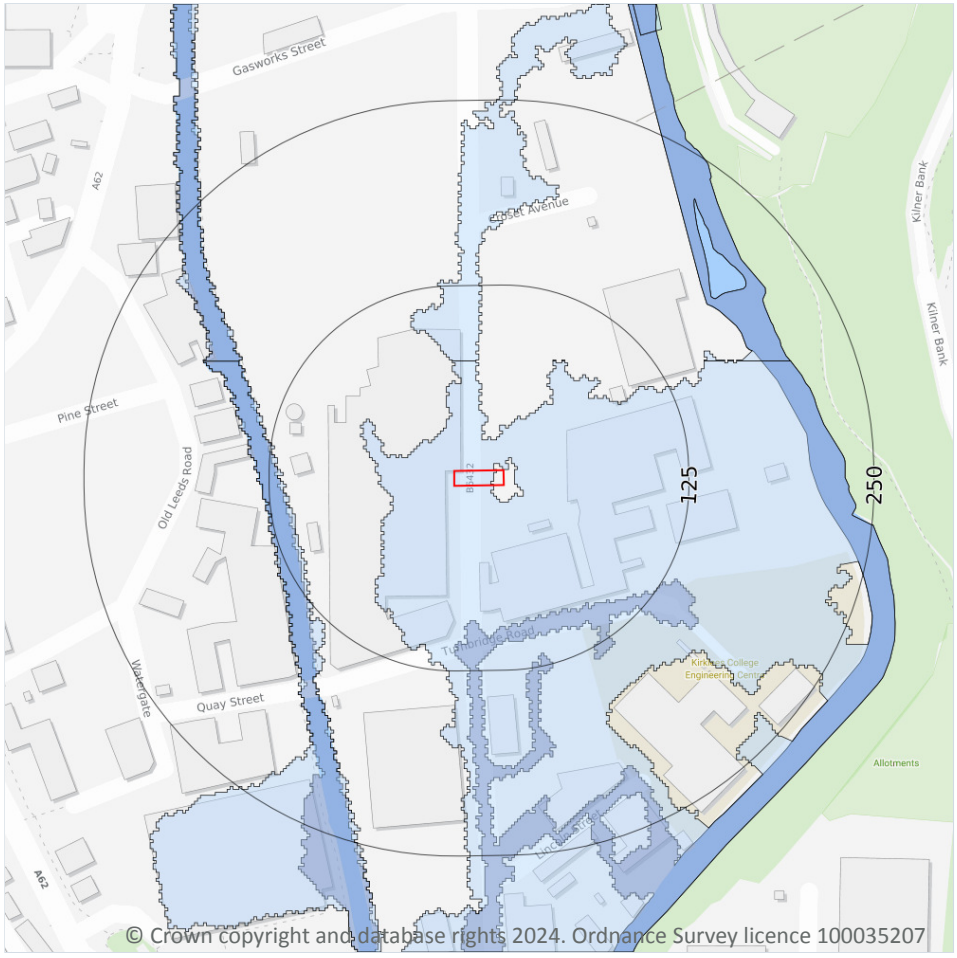
7.5 Flood Storage Areas

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



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

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.

Features are displayed on the River and coastal flooding map on **page 92 >**

Location	Type
On site	**Zone 2 - (Fluvial /Tidal Models)**

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

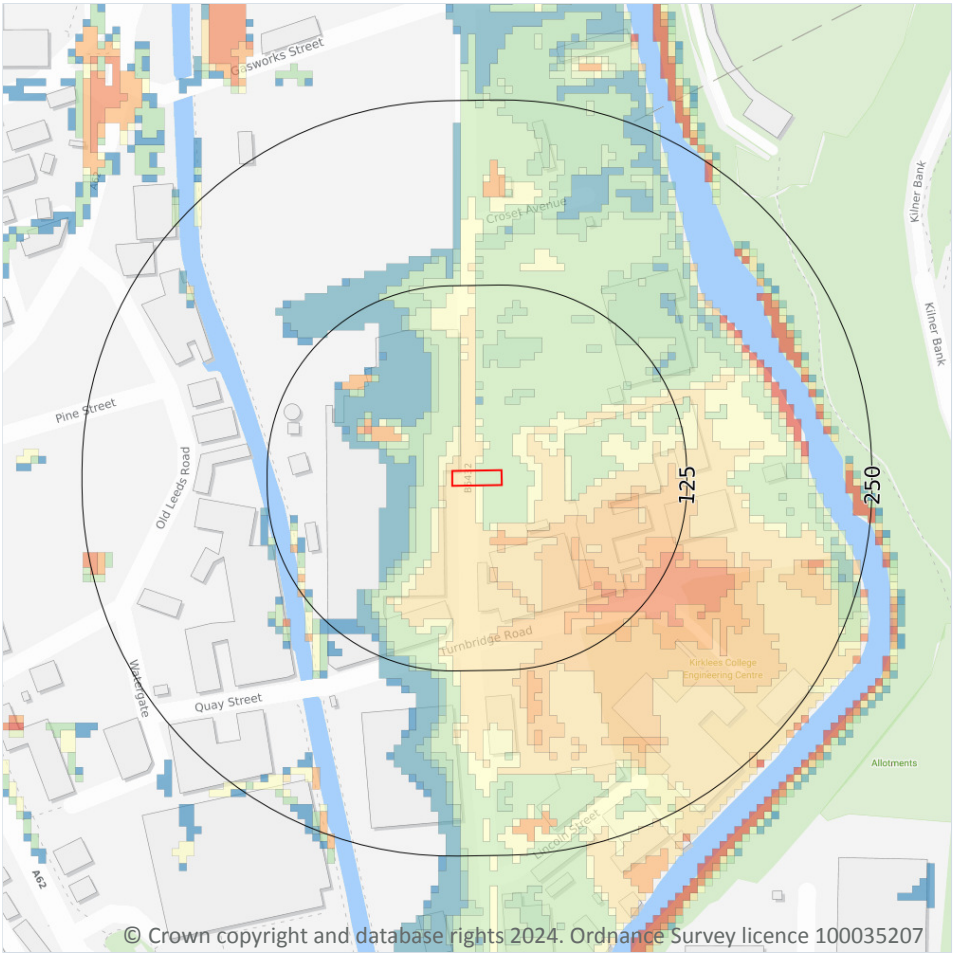
7.7 Flood Zone 3

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



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 100 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 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 96 >**

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	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding

Site Outline

Search buffers in metres (m)

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

9.1 Groundwater flooding

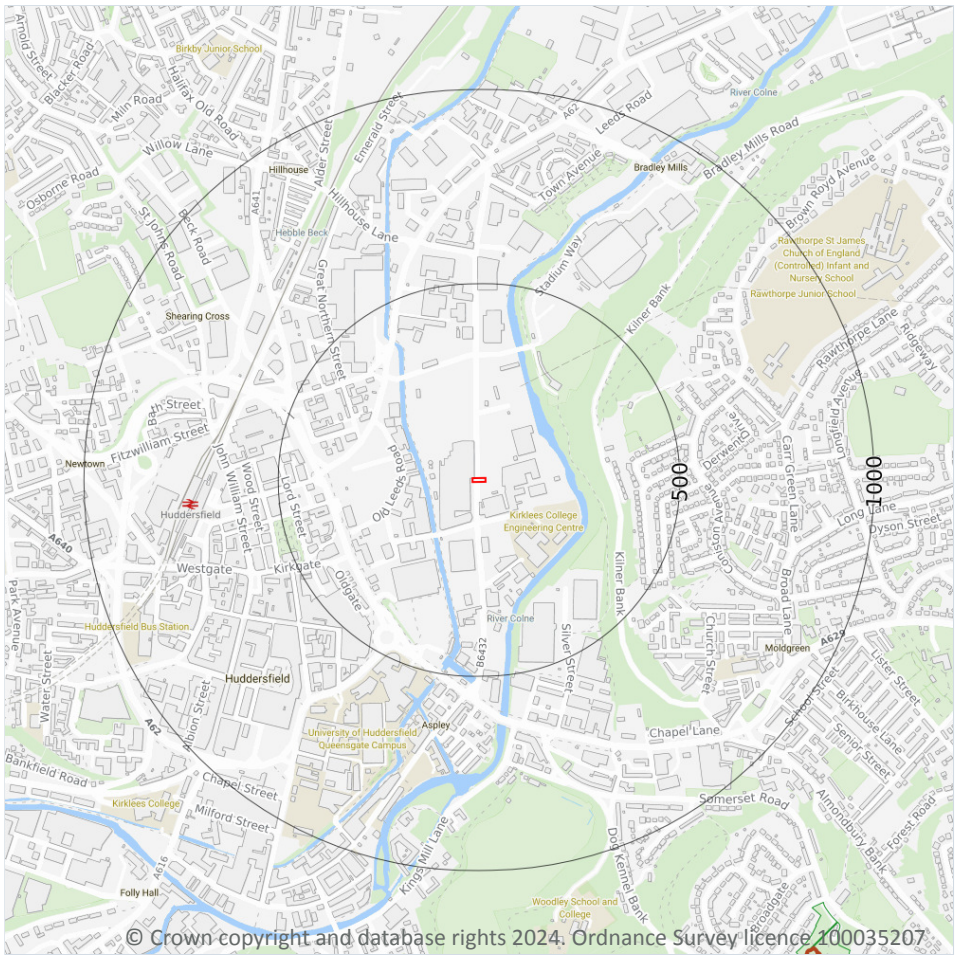
Highest risk on site	**Low**
Highest risk within 50m	**Low**

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 98 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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Site Outline

Search buffers in metres (m)

Local Nature Reserves (LNR)

Designated Ancient Woodland

Green Belt

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	1

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 99 >**

ID	Location	Name	Data source
-	1734m W	Gledholt Woods	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m	1

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 99 >**

ID	Location	Name	Woodland Type
2	1465m SE	Benholmley Wood	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 99 >**

ID	Location	Name	Local Authority name
1	1382m SE	South and West Yorkshire	Kirklees

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

10.12 Proposed Ramsar sites

Records within 2000m	0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

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

This data is sourced from Natural England.

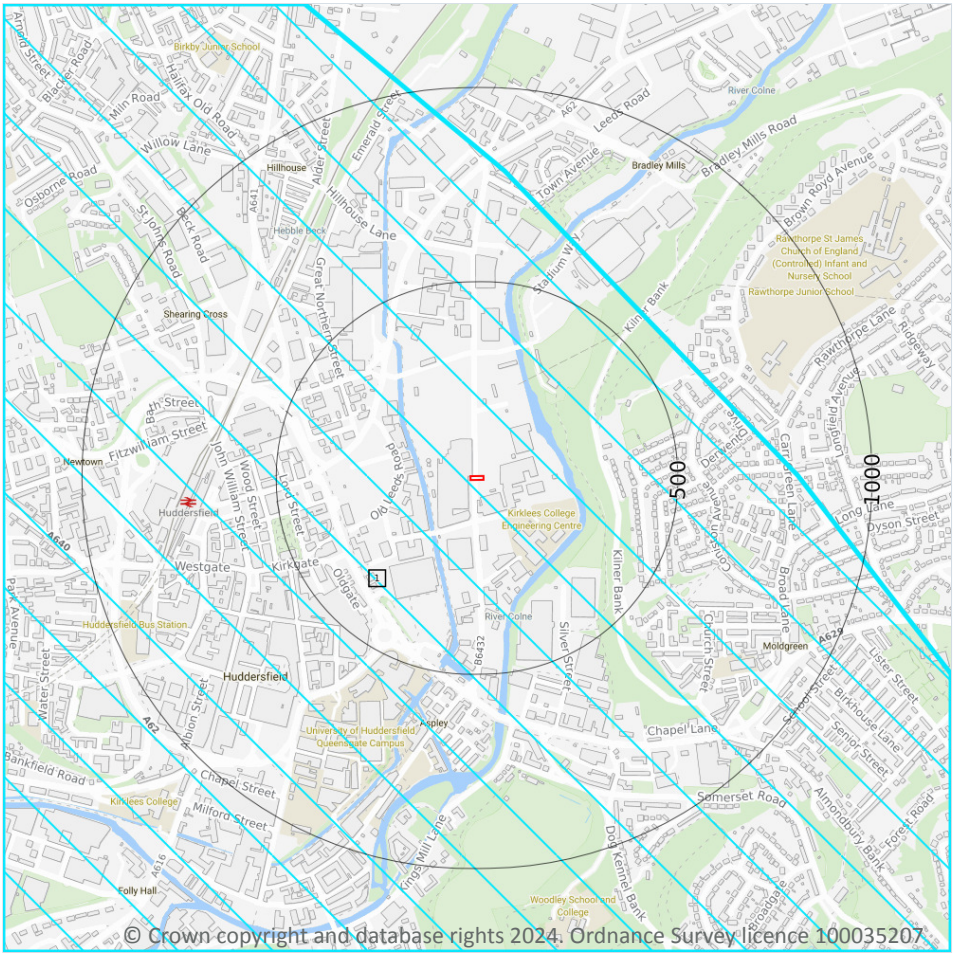
10.16 Nitrate Vulnerable Zones

Records within 2000m	0

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

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

SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site	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 104 >**

ID	Location	Type of developments requiring consultation
1	**On site**	**Infrastructure - Airports, helipads and other aviation proposals.** **Minerals, Oil and Gas - Oil & gas exploration/extraction.** **Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 4000m².** **Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.**

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

Site Outline

Search buffers in metres (m)

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

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	2

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

Features are displayed on the Visual and cultural designations map on **page 106 >**

ID	Location	Name	Grade	Reference Number	Listed date
A	161m SW	Chimney At Se 14942 16846	II	1409815	23/05/2012
1	216m SW	John L Brierleys Mill	II	1231214	29/09/1978

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	1

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.

Features are displayed on the Visual and cultural designations map on **page 106 >**

ID	Location	Ancient monument name	Reference number
A	160m SW	Turn Bridge, Quay Street	1005793

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

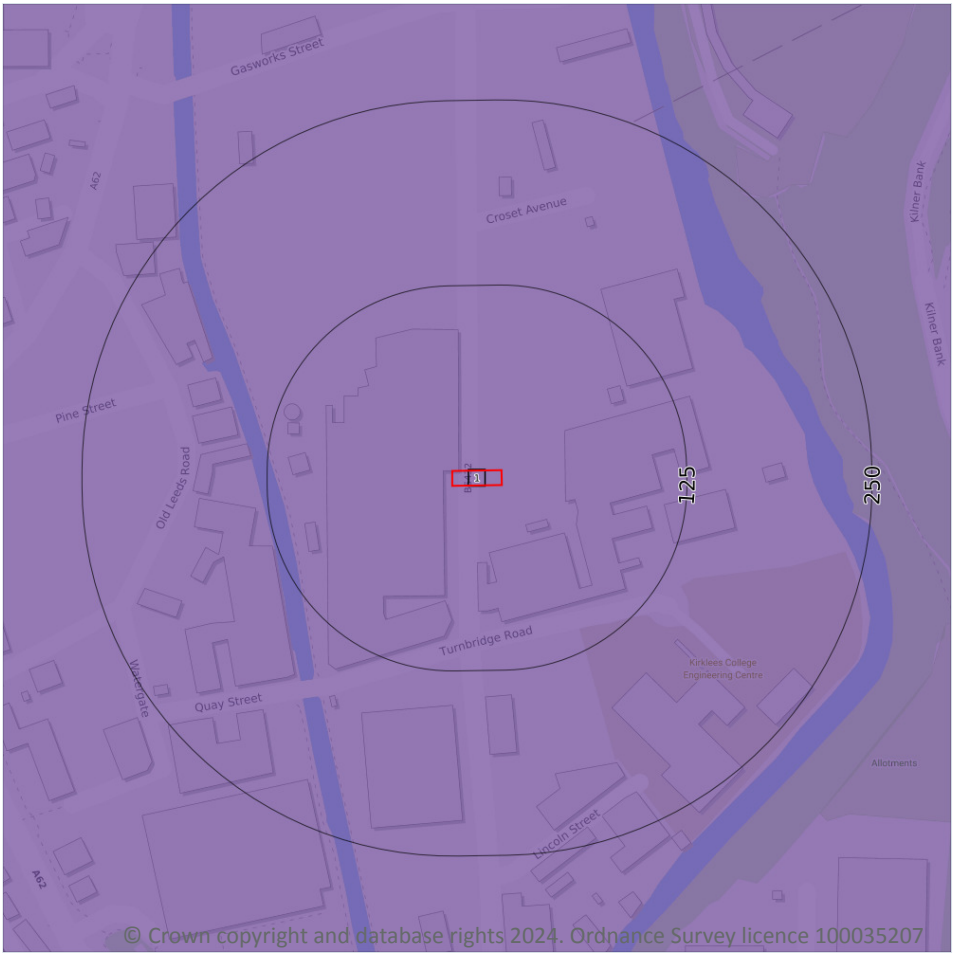
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

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

12.1 Agricultural Land Classification

Records within 250m	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 109 >**

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

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

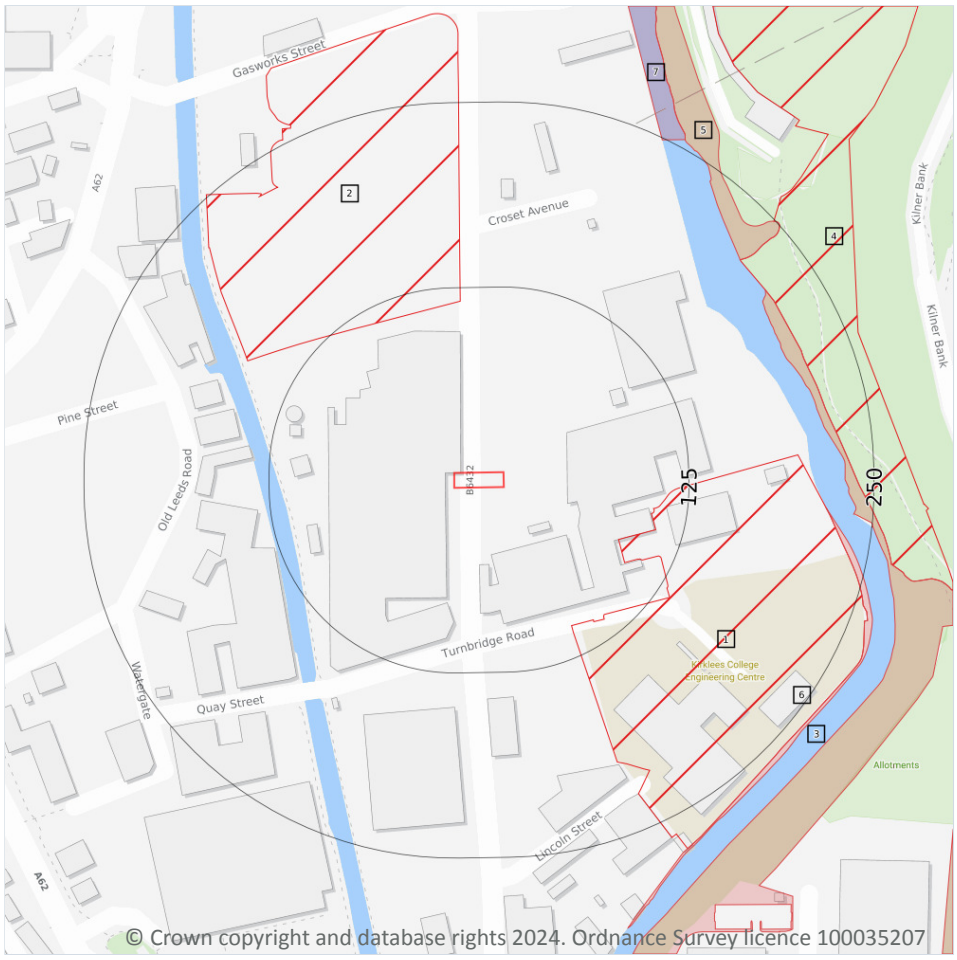
12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations



Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

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

13.1 Priority Habitat Inventory

Records within 250m	4

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

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

ID	Location	Main Habitat	Other habitats
3	205m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
5	215m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	218m E	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	249m NE	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	3

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

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

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	85m SE	NLUD Ref: 471801197	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-
2	111m N	HLD_refs: EAHLD04233	Low	Environment Agency Historic Landfill Sites	UK Perspectives Aerial Photography	-
4	214m NE	HLD_refs: EAHLD04176	Low	Environment Agency Historic Landfill Sites	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

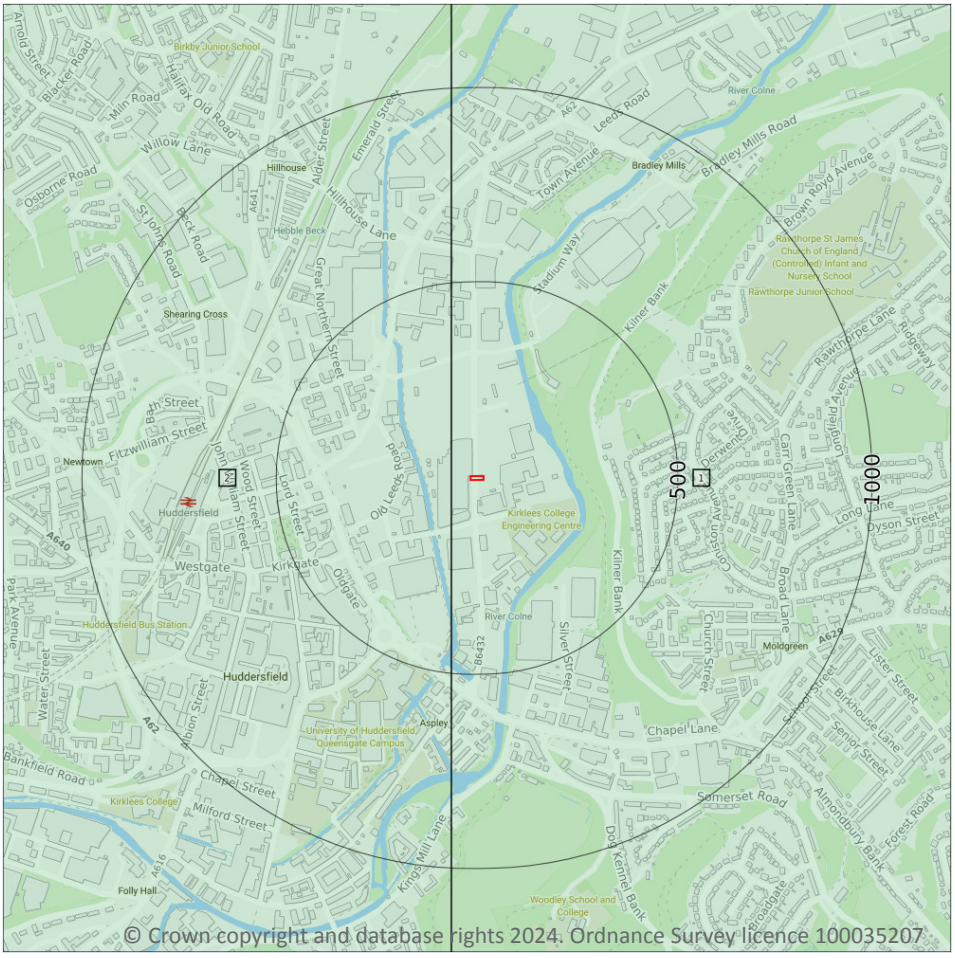
Records within 250m	0

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

Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



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Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	2

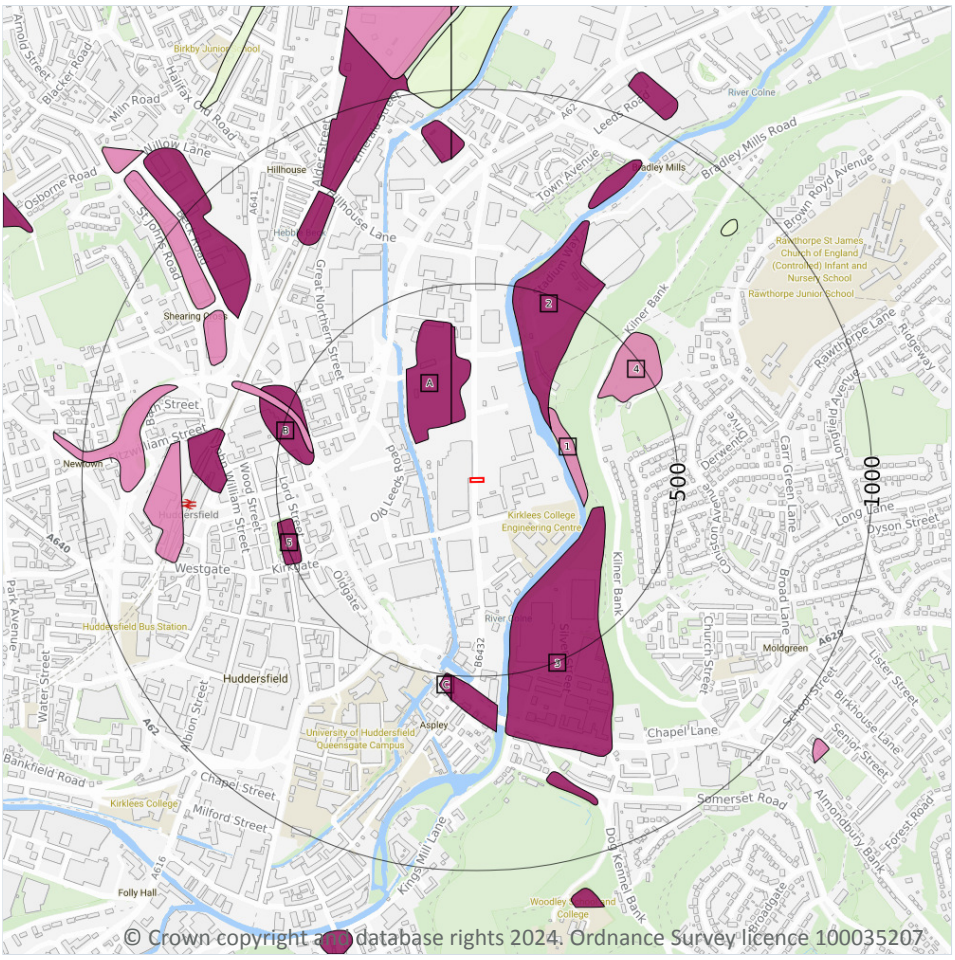
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 114 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**SE11NE**
2	49m W	Full	Full	Full	Full	SE11NW

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m	12

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

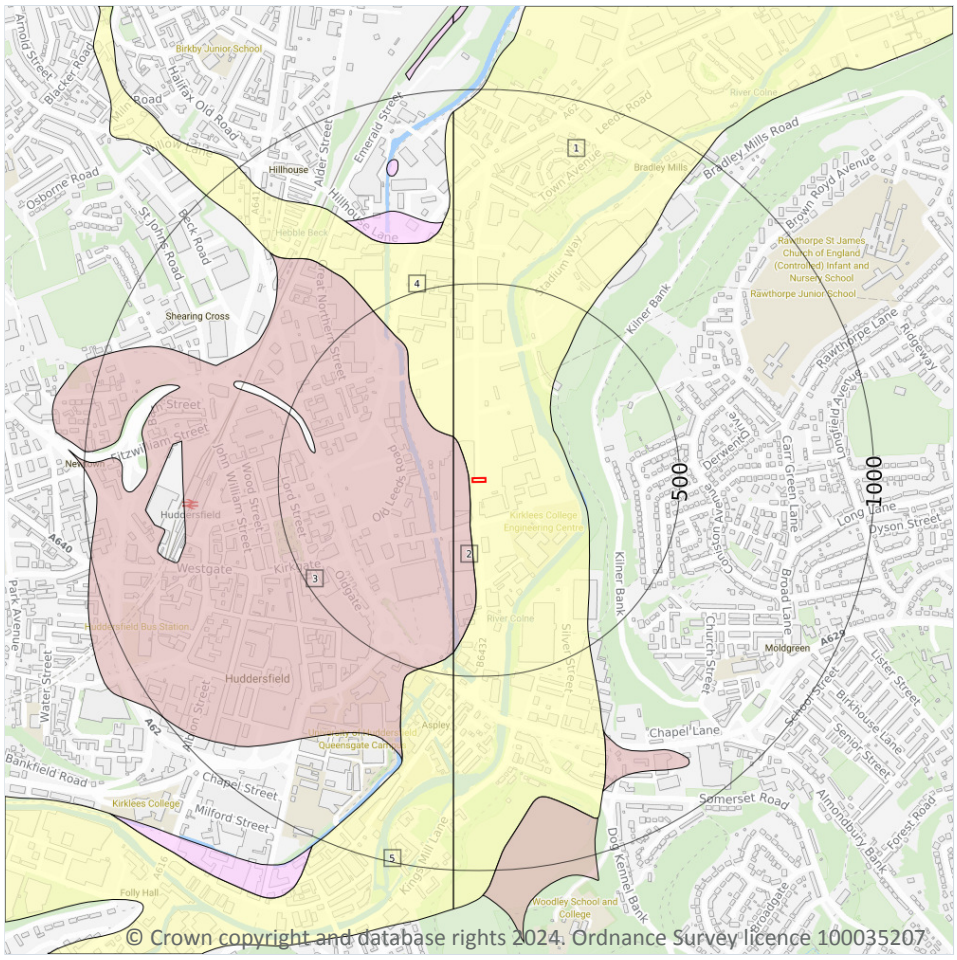
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 115 >**

ID	Location	LEX Code	Description	Rock description
A	148m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
A	148m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
1	212m NE	WGR-VOID	Worked Ground (Undivided)	Void
2	214m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
3	278m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
4	360m NE	WGR-VOID	Worked Ground (Undivided)	Void
B	406m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
B	411m W	WGR-VOID	Worked Ground (Undivided)	Void
B	429m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
5	468m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
C	496m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
C	500m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



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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 117 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XCSV**	**Alluvium - Clay, Sand And Gravel**	**Clay, Sand And Gravel**
2	9m W	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
3	49m W	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

ID	Location	LEX Code	Description	Rock description
4	118m NW	ALV-XCSV	Alluvium - Clay, Sand And Gravel	Clay, Sand And Gravel
5	442m S	ALV-XCSV	Alluvium - Clay, Sand And Gravel	Clay, Sand And Gravel

This data is sourced from the British Geological Survey.

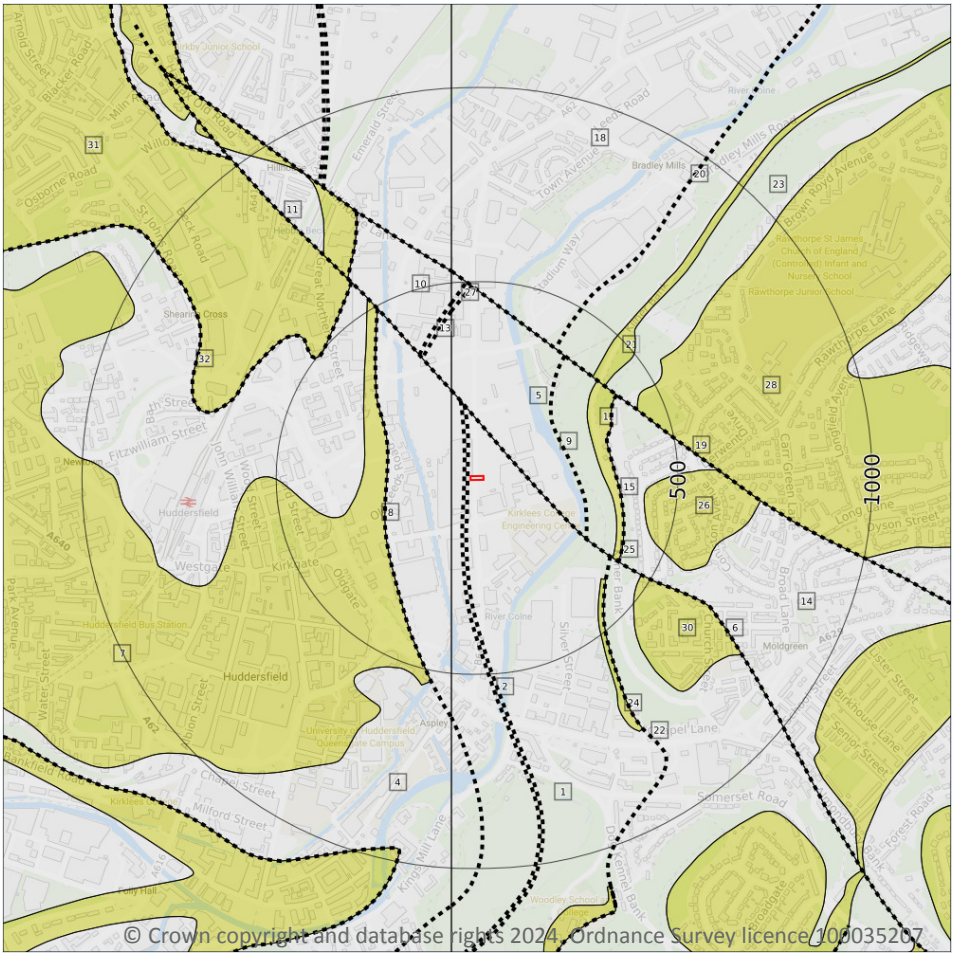
14.4 Landslip (10k)

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	15

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 119 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLCM-MDSS**	**Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Langsettian Sub-age**
4	49m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
5	81m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
7	215m W	MBR-SDST	Middle Band Rock - Sandstone	Langsettian Sub-age
10	226m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
12	293m E	EYR-SDST	80 Yard Rock - Sandstone	Langsettian Sub-age
14	329m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
18	373m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
21	380m NE	EYR-SDST	80 Yard Rock - Sandstone	Langsettian Sub-age
23	388m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
24	396m SE	STNR-SDST	Stanningley Rock - Sandstone	Langsettian Sub-age
26	416m E	EF-SDST	Elland Flags - Sandstone	Langsettian Sub-age
28	431m NE	EF-SDST	Elland Flags - Sandstone	Langsettian Sub-age
30	475m SE	EYR-SDST	80 Yard Rock - Sandstone	Langsettian Sub-age
31	496m NW	SBF-SDST	Soft Bed Flags - Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	**17**

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.

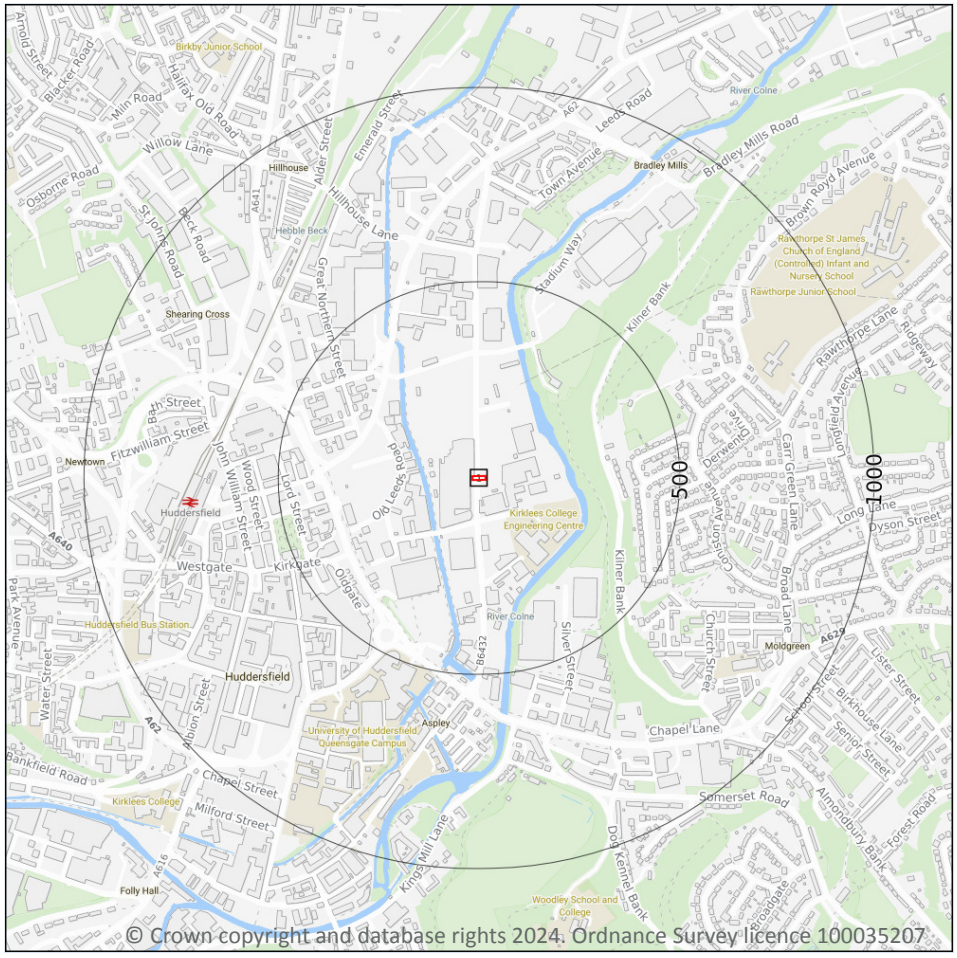
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 119 >**

ID	Location	Category	Description
2	8m W	FOSSIL_HORIZON	Fossil horizon, marine band
3	16m W	ROCK	Coal seam, inferred
6	81m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
8	215m W	ROCK	Coal seam, inferred

ID	Location	Category	Description
9	217m NE	ROCK	Coal seam, inferred
11	226m N	FAULT	Normal fault, inferred; crossmarks on downthrow side
13	328m NW	FOSSIL_HORIZON	Fossil horizon, marine band
15	329m E	ROCK	Coal seam, observed
16	332m E	ROCK	Coal seam, inferred
17	339m NW	ROCK	Coal seam, inferred
19	373m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
20	376m NE	ROCK	Coal seam, inferred
22	381m SE	ROCK	Coal seam, inferred
25	399m SE	ROCK	Coal seam, inferred
27	428m N	FOSSIL_HORIZON	Fossil horizon, marine band
29	448m N	ROCK	Coal seam, inferred
32	496m NW	ROCK	Coal seam, inferred

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

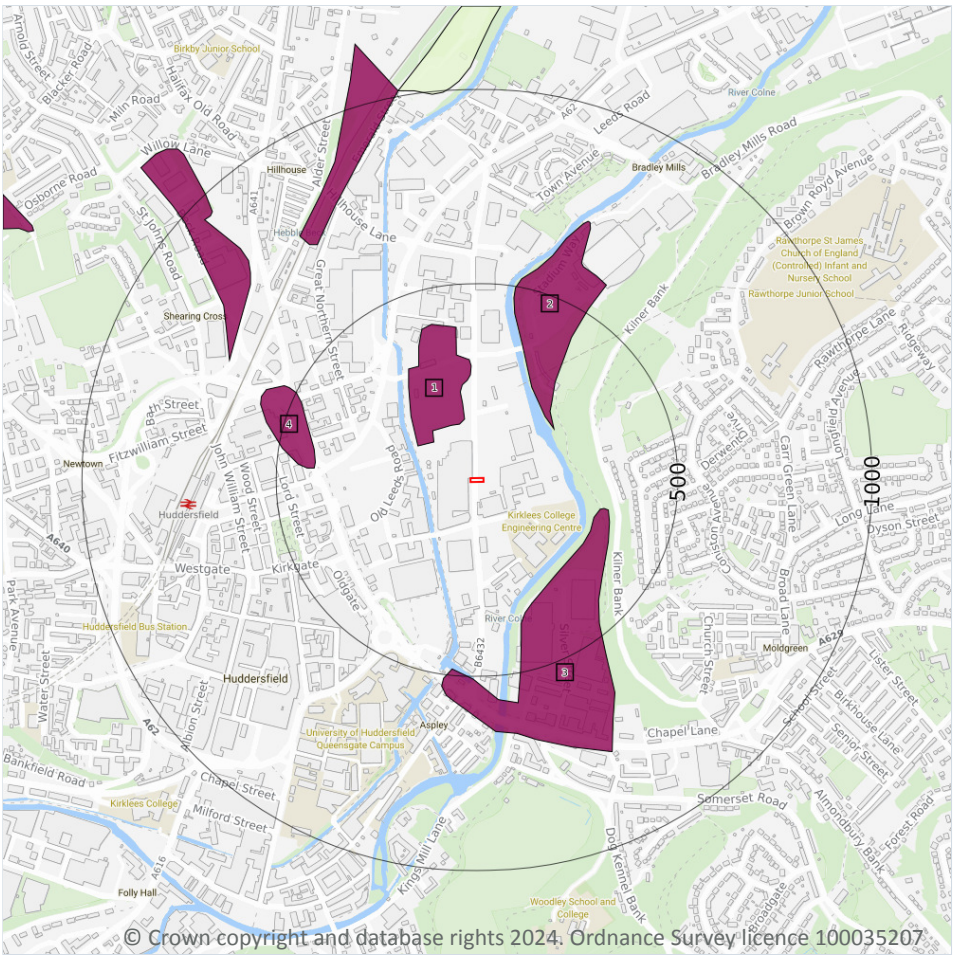
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 122 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW077_huddersfield_v4**

This data is sourced from the British Geological Survey.

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



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Site Outline

Search buffers in metres (m)

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

15.2 Artificial and made ground (50k)

Records within 500m	4

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 123 >**

ID	Location	LEX Code	Description	Rock description
1	133m NW	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	221m NE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	298m SE	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
4	402m W	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

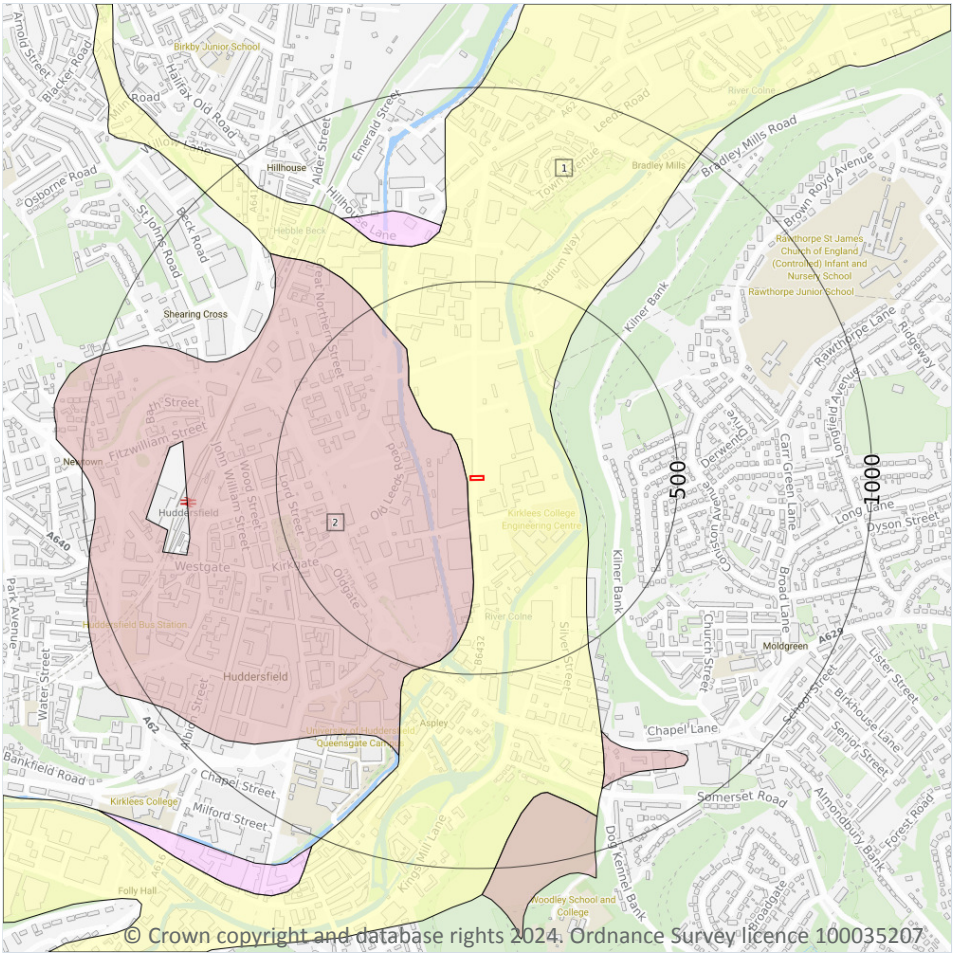
15.3 Artificial ground permeability (50k)

Records within 50m	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	2

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 125 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XCZSV**	**ALLUVIUM**	**CLAY, SILT, SAND AND GRAVEL**
2	9m W	HEAD-XCZSV	HEAD	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	3

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**High**	**Very Low**
9m W	Mixed	High	Very Low
49m W	Mixed	High	Very Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

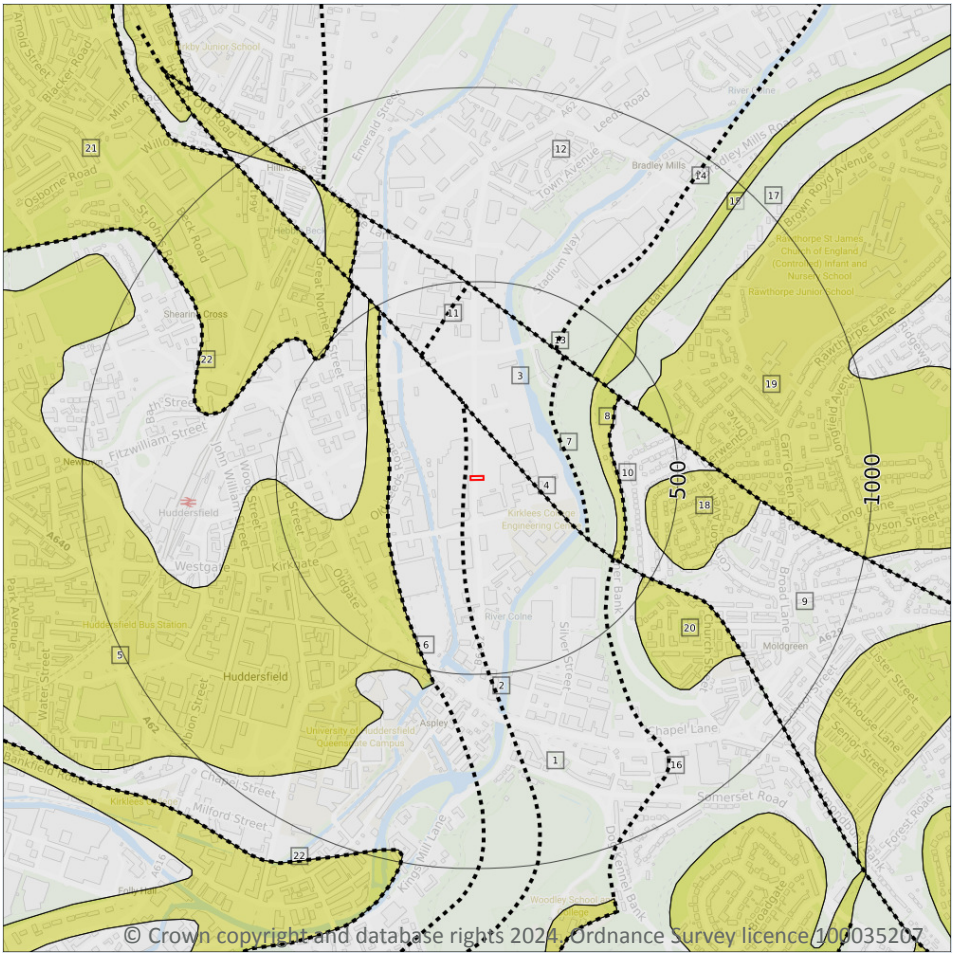
15.7 Landslip permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m	12

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 127 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLCM-MDSS**	**PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**
3	84m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
5	209m W	MBR-SDST	MIDDLE BAND ROCK - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
8	297m E	EYR-SDST	80 YARD ROCK - SANDSTONE	WESTPHALIAN
9	335m E	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
12	372m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
15	379m NE	EYR-SDST	80 YARD ROCK - SANDSTONE	WESTPHALIAN
17	391m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
18	420m E	EF-SDST	ELLAND FLAGS - SANDSTONE	WESTPHALIAN
19	432m NE	EF-SDST	ELLAND FLAGS - SANDSTONE	WESTPHALIAN
20	480m SE	EYR-SDST	80 YARD ROCK - SANDSTONE	WESTPHALIAN
21	490m NW	SBF-SDST	SOFT BED FLAGS - SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Moderate**	**Low**
49m W	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	10

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.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 127 >**