



# GroundSure EnviroInsight

Address: Three Millstones Inn, West Bradford, Lancashire, BB7 4SX  
Date: 6 Jan 2015  
Reference: CMAPS-CM-389440-4199-060115EDR  
Client: CENTREMAPS

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 07-May-2001  
Grid Reference: 374163,444402  
Site Size: 0.12ha

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# Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Environmental Permits, Incidents and Registers		On-site	0-50m	51-250	251-500		
1.1 Industrial Sites Holding Environmental Permits and/or Authorisations							
1.1.1	Records of historic IPC Authorisations	0	0	0	0		
1.1.2	Records of Part A(1) and IPPC Authorised Activities	0	0	0	0		
1.1.3	Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0		
1.1.4	Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0		
1.1.5	Records of List 1 Dangerous Substances Inventory sites	0	0	0	0		
1.1.6	Records of List 2 Dangerous Substances Inventory sites	0	0	0	0		
1.1.7	Records of Part A(2) and Part B Activities and Enforcements	0	0	0	0		
1.1.8	Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0		
1.1.9	Records of Licensed Discharge Consents	0	0	0	2		
1.1.10	Records of Planning Hazardous Substance Consents and Enforcements	0	0	0	0		
1.2	Records of COMAH and NIHHS sites	0	0	0	0		
1.3 Environment Agency Recorded Pollution Incidents							
1.3.1	National Incidents Recording System, List 2	0	0	2	3		
1.3.2	National Incidents Recording System, List 1	0	0	0	0		
1.4	Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0		
Section 2: Landfill and Other Waste Sites		On-site	0-50m	51-250	251-500	501-1000	1000-5000
2.1 Landfill Sites							
2.1.1	Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
2.1.2	Environment Agency Historic Landfill Sites	0	0	0	1	0	1
2.1.3	BGS/DoE Landfill Site Survey	0	0	0	0	0	1
2.1.4	GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	2
2.2 Landfill and Other Waste Sites Findings							
2.2.1	Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
2.2.2	Environment Agency Licensed Waste Sites	0	0	0	0	0	2

Section 3: Current Land Use	On-site	0-50m	51-250	251-500
3.1 Current Industrial Sites Data	0	0	1	Not searched
3.2 Records of Petrol and Fuel Sites	0	0	0	0
3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	1

Section 4: Geology	
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
4.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 5: Hydrogeology and Hydrology	0-500m					
5.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	Yes					
5.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
5.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	5	2
5.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	4	0
5.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	5	0
5.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
5.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
5.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	1	0	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
5.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
5.10 Detailed River Network entries within 500m of the site	0	8	2	8	Not searched	Not searched
5.11 Surface water features within 250m of the study site	No	Yes	Yes	Not searched	Not searched	Not searched

## Section 6: Flooding

6.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	Yes
6.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site?	Yes
6.3 Are there any Flood Defences within 250m of the study site?	No
6.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
6.5 Are there any areas used for Flood Storage within 250m of the study site?	No
6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Potential at Surface
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Moderate

## Section 7: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
7.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
7.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
7.5 Records of Ramsar sites	0	0	0	0	0	0
7.6 Records of Ancient Woodlands	0	0	0	0	1	5
7.7 Records of Local Nature Reserves (LNR)	0	0	0	0	1	0
7.8 Records of World Heritage Sites	0	0	0	0	0	0
7.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
7.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	1	0	0	0	0
7.11 Records of National Parks	0	0	0	0	0	0
7.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
7.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0

## Section 8: Natural Hazards

8.1 What is the maximum risk of natural ground subsidence?	Moderate
8.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
8.1.2 What is the maximum Landslides hazard rating identified on the study site?	Low
8.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Very Low
8.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Moderate
8.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
8.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Low

## Section 9: Mining

9.1 Are there any coal mining areas within 75m of the study site?	No
9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site?	Negligible
9.3 Are there any brine affected areas within 75m of the study site?	No

# Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

## 1. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

## 2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

## 3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

## 4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

## 5. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

## 6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

## 7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

## 8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

## 9. Mining

Provides information on areas of coal and shallow mining.

## 10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (08444 159000) for further information and guidance.

## Note: Maps

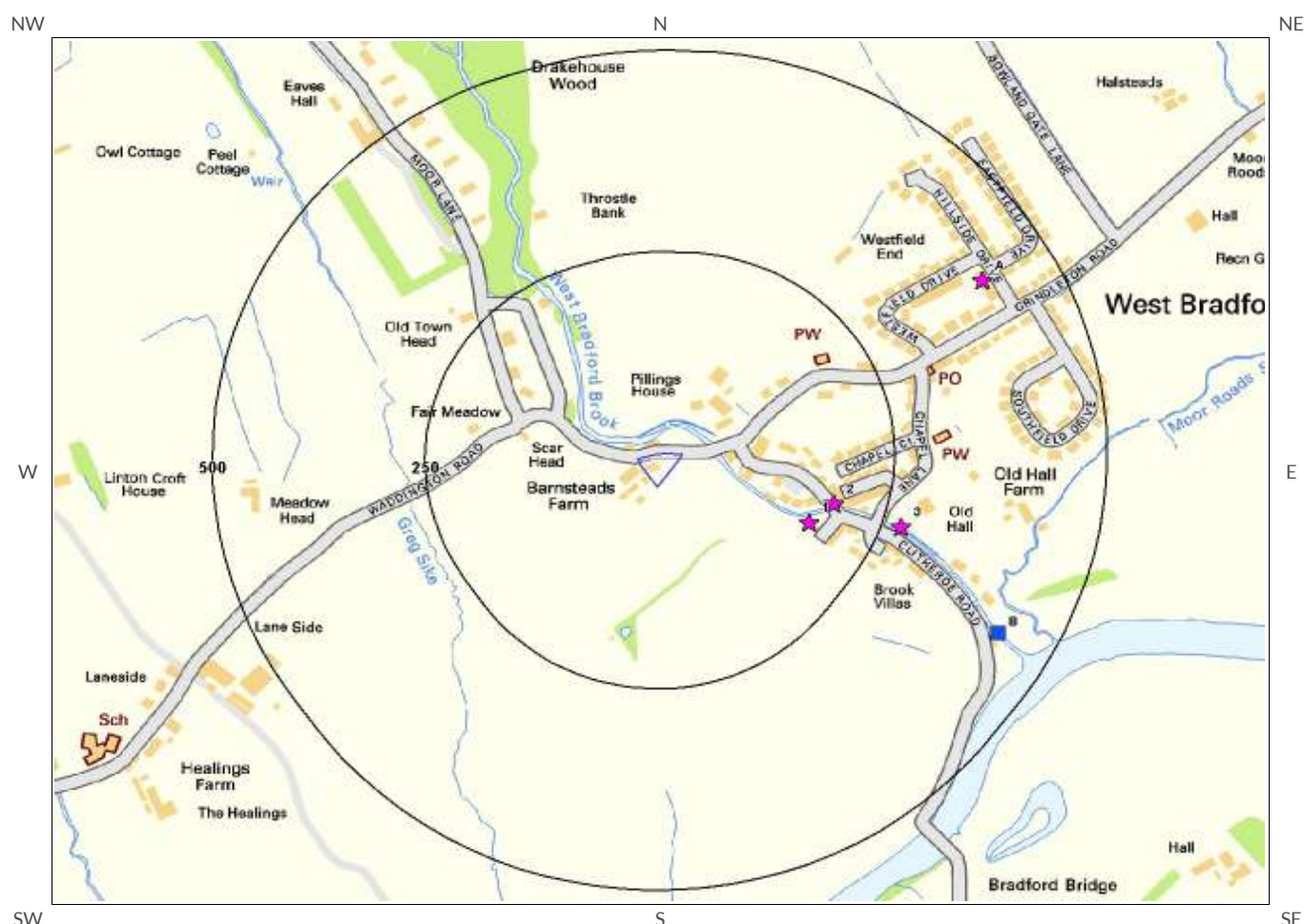
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.
















# 1. Environmental Permits, Incidents and Registers Map



Environmental Permits,  
Incidents and Registers Legend

Mapping  
sourced from  
**Ordnance  
Survey**

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- |   |  |  |
|---|--|--|
|  Site Outline                  |  Recorded Pollution Incident                                    |  RAS 3 & 4 Authorisations |
|  Dangerous Substances (List 1) |  Part A(1) Authorised Processes and Historic IPC Authorisations |  |
|  Dangerous Substances (List 2) |  Part A(2) and Part B Authorised Processes                      |  |
|  Water Industry Referrals      |  COMAH / NIHS Sites   |  |
|  Licenced Discharge Consents   |  Sites Determined as Contaminated Land                          |  |
|  Red List Discharge Consents   |  Hazardous Substance Consents and Enforcements                  |  |



# 1. Environmental Permits, Incidents and Registers

## 1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

### 1.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

---

### 1.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

---

### 1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

---

### 1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

---

### 1.1.5 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

---

1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

0

Database searched and no data found.

1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

1.1.9 Records of Licensed Discharge Consents within 500m of the study site:

2

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details
6B	432.0	SE	374560 444200	Address: Sewage Ps, West Bradford, Nr Clitheroe, Lancashire Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company Permit Number: 01LA1538 Permit Version: 1 Receiving Water: West Bradford Brook Status: Revoked - Unspecified Issue date: - Effective Date: 11/4/1967 Revocation Date: 11/4/1967
7B	432.0	SE	374560 444200	Address: West Bradford Ps, Clitheroe Rd, Ribble Valley, Lancashire Effluent Type: Sewage Discharges - Pumping Station - Water Company Permit Number: 01RIB0031 Permit Version: 1 Receiving Water: - Status: Post Nra Legislation Where Issue Date > 31-aug-89 (historic Only) Issue date: - Effective Date: 1/4/1991 Revocation Date: -

1.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

## 1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

## 1.3 Environment Agency Recorded Pollution Incidents

1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

5

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details
1	171.0	SE	374338 444337	Incident Date: 20/12/2001 Incident Identification: 49171 Pollutant: Sewage Materials Pollutant Description: Crude Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2	188.0	E	374367 444361	Incident Date: 16/04/2003 Incident Identification: 151593 Pollutant: Sewage Materials Pollutant Description: Crude Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3	272.0	E	374446 444332	Incident Date: 24/07/2006 Incident Identification: 419997 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off Water Impact: Category 2 (Significant) Land Impact: Category 3 (Minor) Air Impact: Category 3 (Minor)
4A	413.0	NE	374541 444638	Incident Date: 07/04/2003 Incident Identification: 149222 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Chemical Odour Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
5A	413.0	NE	374541 444638	Incident Date: 25/06/2003 Incident Identification: 168654 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Chemical Odour: Effects on Humans Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

1.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

## 1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

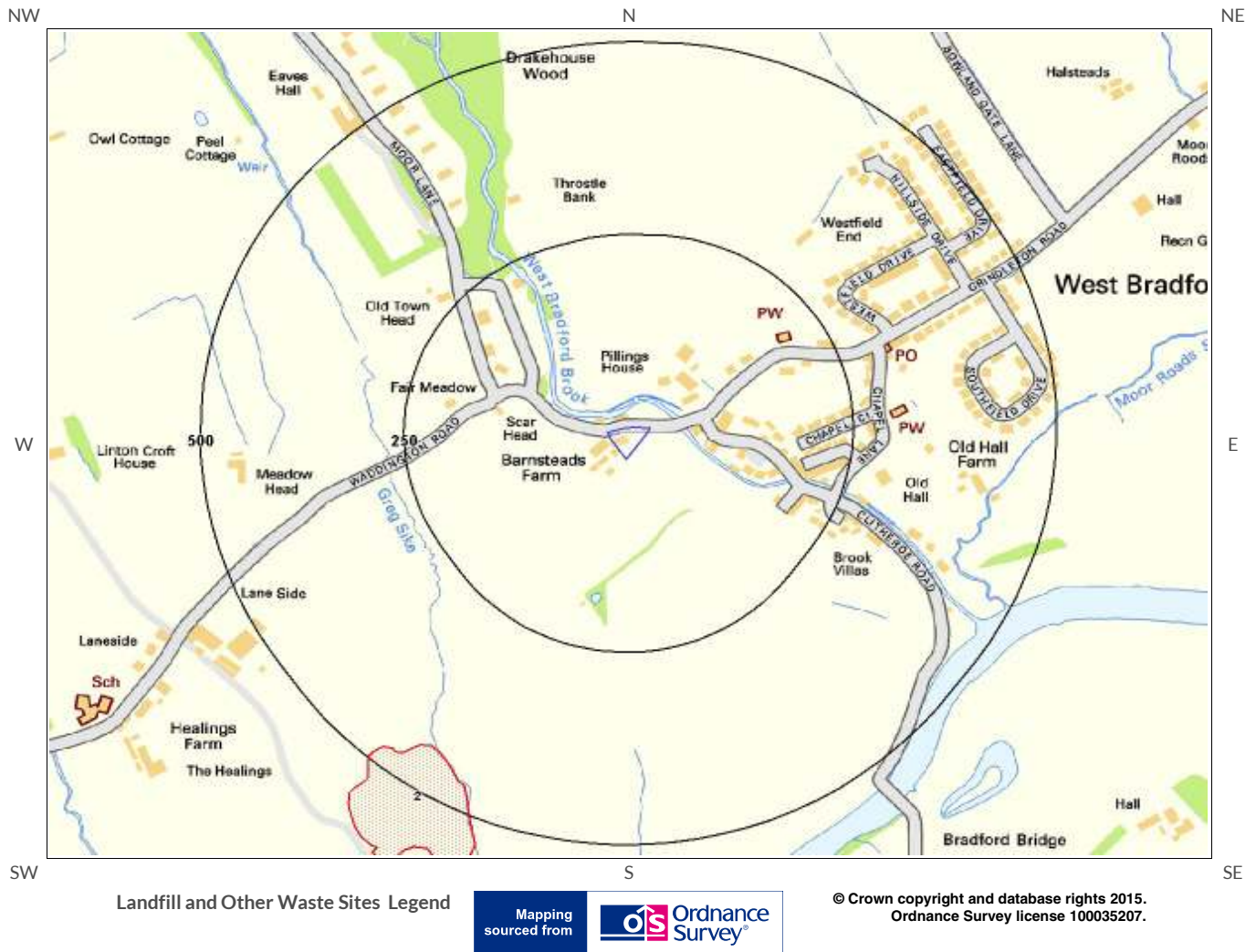
How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

0

Database searched and no data found.

---

## 2. Landfill and Other Waste Sites Map





## 2. Landfill and Other Waste Sites

### 2.1 Landfill Sites

#### 2.1.1 Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

#### 2.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:

2

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
2	441.0	SW	373800 443900	Site Address: Waddington Brickworks, Waddington Road, West Bradford, Lancashire Waste Licence: - Site Reference: K1/03/049 Waste Type: Household, Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	1126.0	S	374600 443300	Site Address: Crosshills Quarry, West Bradford Road, Pimlico, Clitheroe, Lancashire Waste Licence: - Site Reference: K1/03/006 Waste Type: Inert, Industrial, Household, Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Clitheroe Metropolitan Borough

#### 2.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

1

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
Not shown	1075.0	SE	37460 0.0 44340 0.0	Address: Crosshills Tip, West Bradford Rd, Clitheroe, Lancs BGS Number: 1917.0 Risk: No risk to aquifer Waste Type: N/A



#### 2.1.4 Records of Local Authority landfill sites within 1500m of the study site:

2

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	1188.0	SE		Refuse Tip	1976 mapping	Polygon
Not shown	1188.0	SE		Refuse Tip	1964 mapping	Polygon

## 2.2 Other Waste Sites

#### 2.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

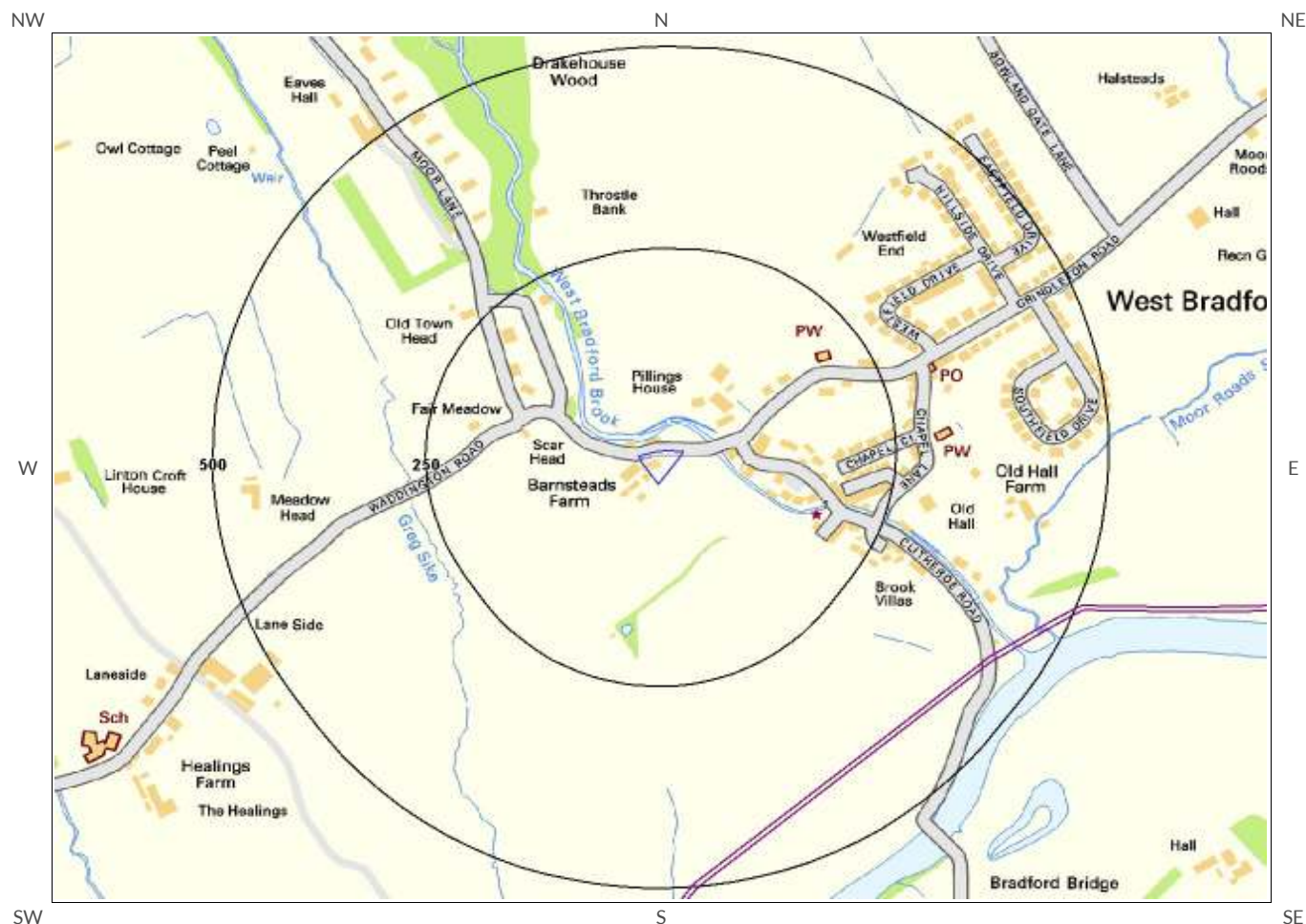
#### 2.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

2

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:






ID	Distance (m)	Direction	NGR	Details
Not shown	1004.0	SE	374839 443642	Site Address: West Bradford Street, Clitheroe, Lancashire, BB7 4QF Type: - Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAS003 EPR reference: - Operator: Castle Cement Ltd Waste Management licence No: 54486 Annual Tonnage: 0.0 Issue Date: 05/01/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Ribblesdale Works Correspondence Address: -, Birmingham Business Park, Park Square, 3160, Solihull Parkway, Birmingham, West Midlands, B37 7YN
Not shown	1004.0	SE	374839 443642	Site Address: West Bradford Street, Clitheroe, Lancashire, BB7 4QF Type: Co-Disposal Landfill Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAS003 EPR reference: EA/EPR/LP3993ZS/A001 Operator: Castle Cement Ltd Waste Management licence No: 54486 Annual Tonnage: 1.0 Issue Date: 05/01/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: IPPC Site Name: Ribblesdale Works Correspondence Address: -, -





Mapping sourced from  Ordnance Survey®

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-  Site Outline
  Current Industrial Sites
-  Petrol & Fuel Sites
-  Underground High Pressure Oil & Fuel Pipelines
-  Search Buffers (m)



## 3. Current Land Uses

### 3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site: 1

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	174.0	SE	Electricity Sub Station	374345 444344	BB7	Electrical Features	Infrastructure and Facilities

### 3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site: 0

Database searched and no data found.

### 3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site: 1

The following Underground High Pressure Oil and Gas pipeline records provided by Linewatch are represented as linear features on the Current Land Use map:

ID	Distance (m)	Direction	Address	Operator	Telephone
2	410.0	SE	Sabir UK Petrochemicals (formerly Huntsman Petrochemicals (UK) Ltd), Wilton Site, Redcar, TS10 4YA	Sabir UK (West) pipelines	01928 512677



## 4. Geology

### 4.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

### 4.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
RTD2-SAGR	RIVER TERRACE DEPOSITS, 2	SAND AND GRAVEL
T2T3-SAGR	RIVER TERRACE DEPOSITS, 2 TO 3	SAND AND GRAVEL

### 4.3 Bedrock and Solid Geology

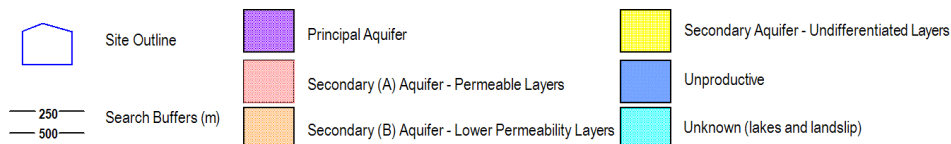
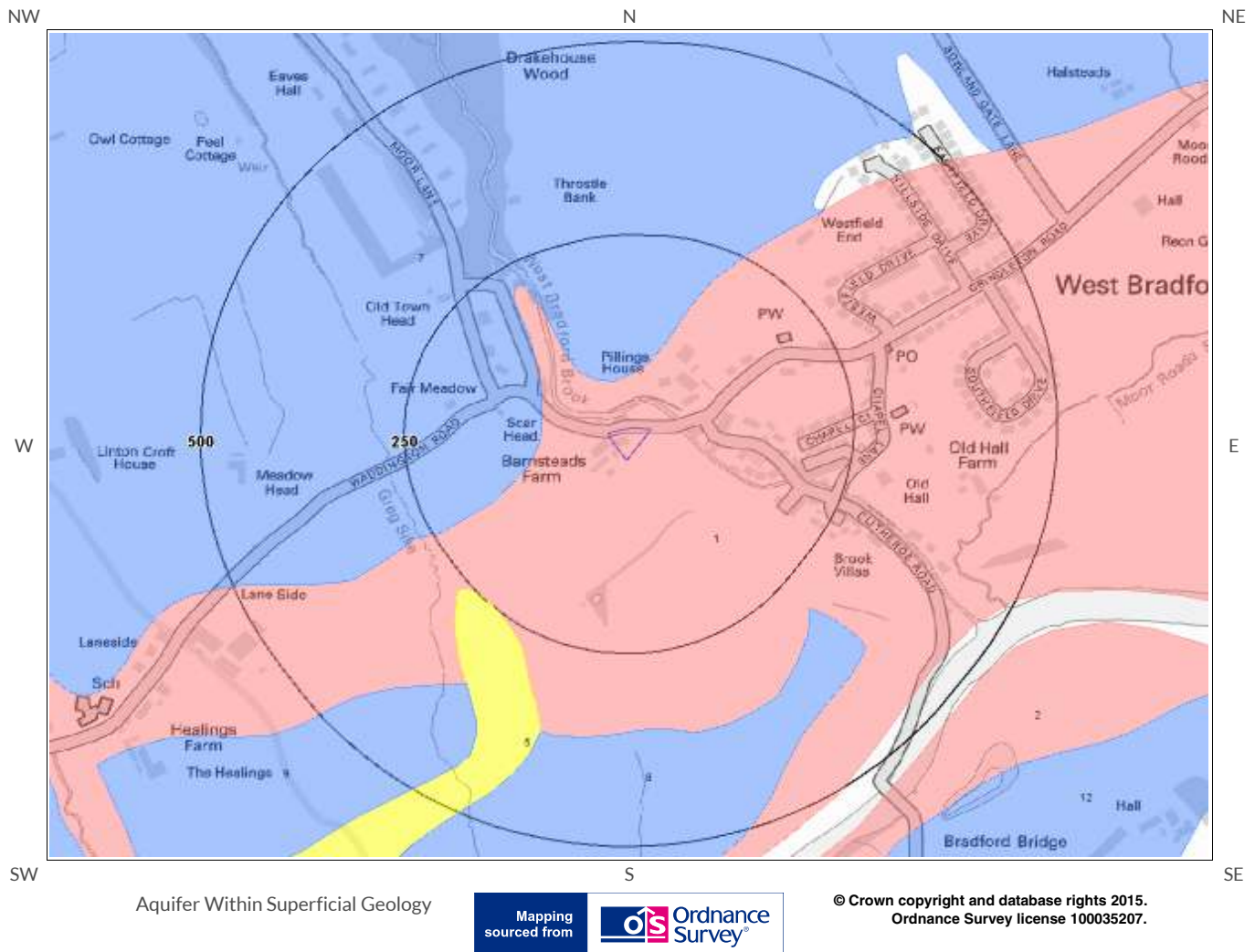
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
CLHOM-MDST	CLITHEROE LIMESTONE FORMATION AND HODDER MUDSTONE FORMATION (UNDIFFERENTIATED)	MUDSTONE

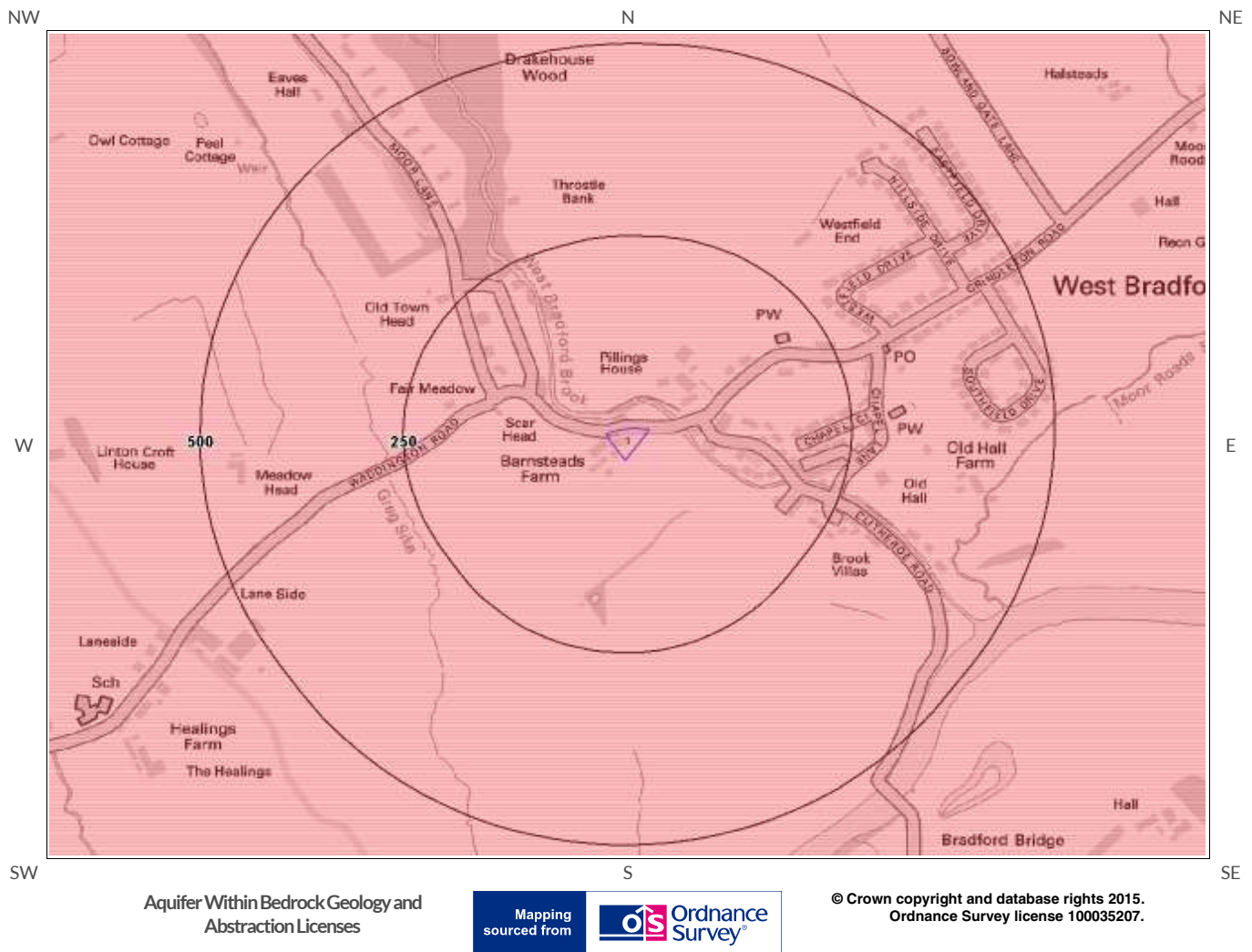
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

# 5. Hydrogeology and Hydrology

## 5a. Aquifer Within Superficial Geology

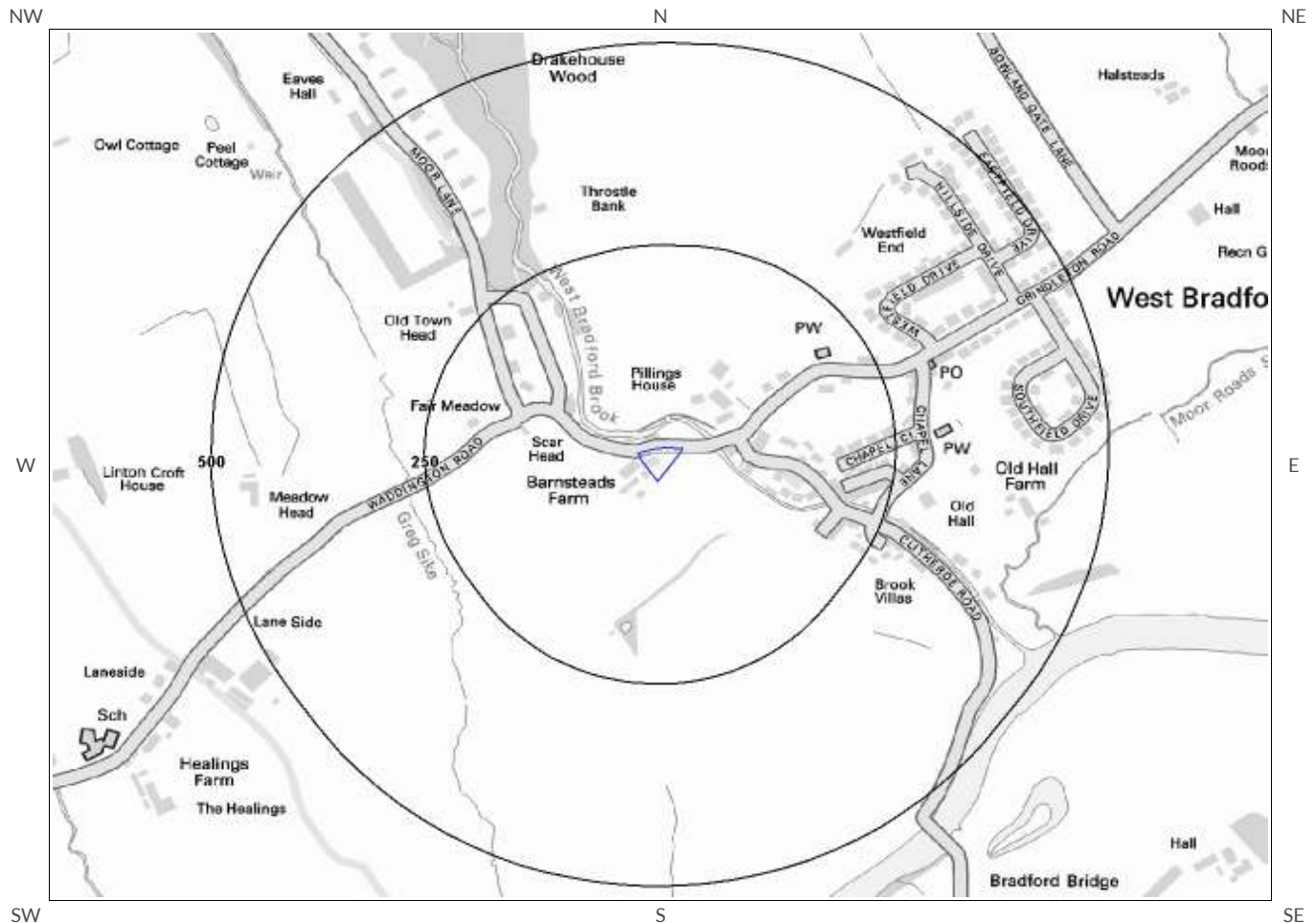


# 5b. Aquifer Within Bedrock Geology and Abstraction Licenses





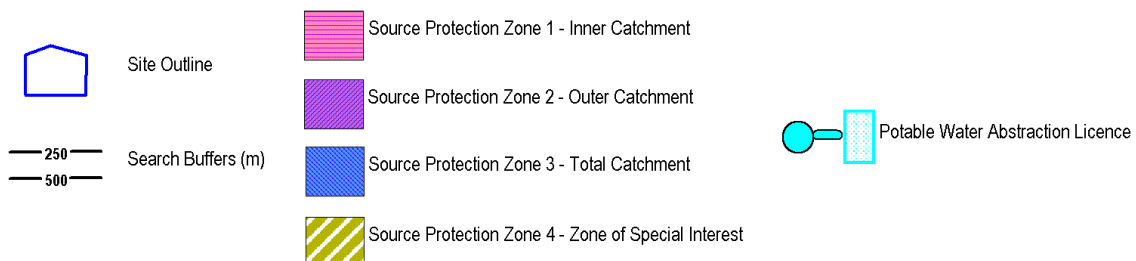
# 5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses










Map Legend Source Protection Zones and Potable Water Abstraction Licenses



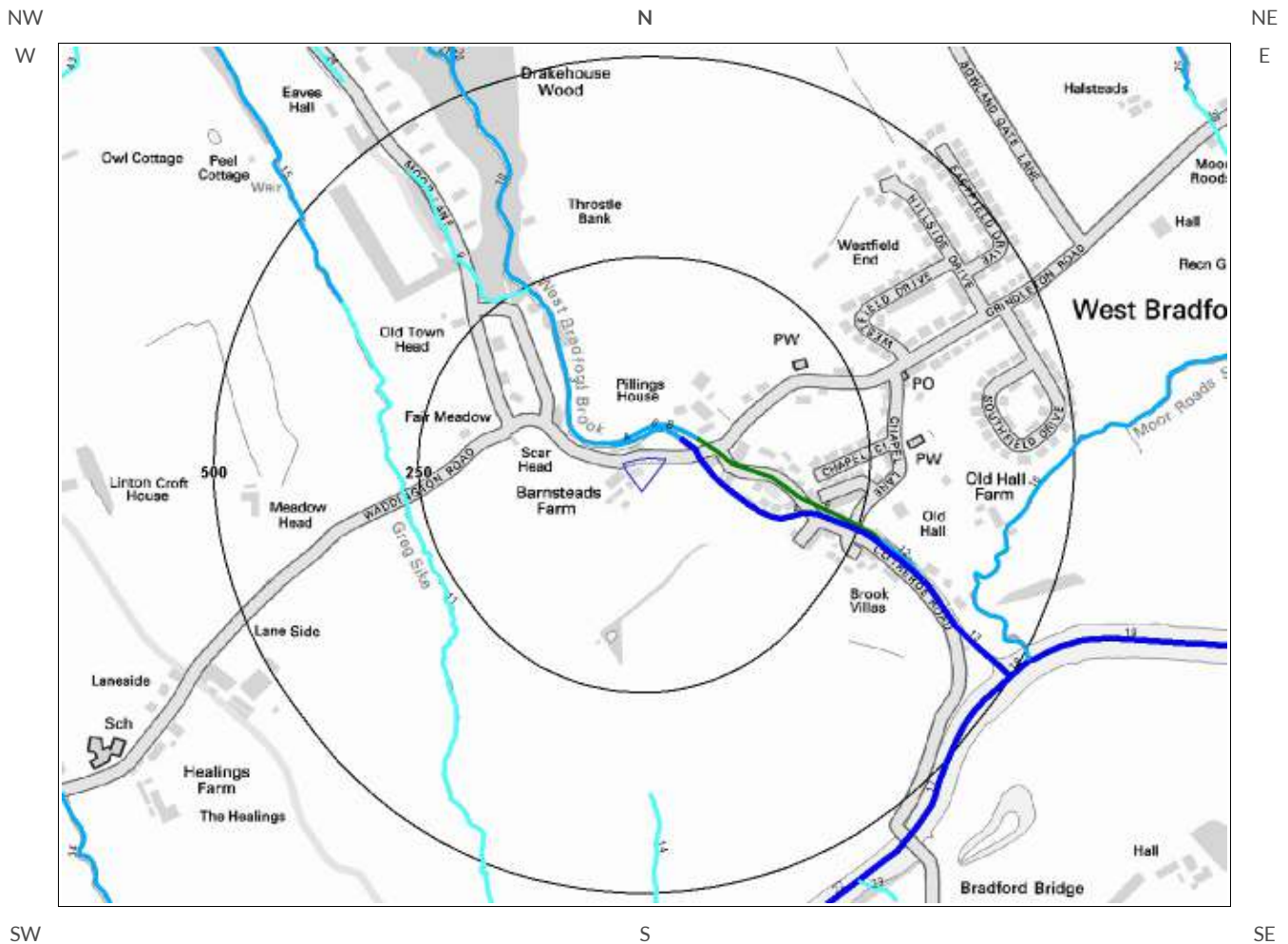
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Mapping sourced from  Ordnance Survey®

 Site Outline  
 250  
 500 Search Buffers (m)  
 Source Protection Zone 1C - Inner Catchment within Confined Aquifer  
 Source Protection Zone 2C - Outer Catchment within Confined Aquifer  
 Source Protection Zone 3C - Total Catchment within Confined Aquifer  
 Potable Water Abstraction Licence

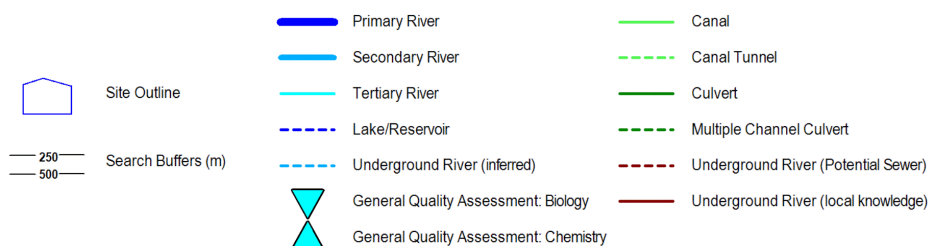
# 5 e. Hydrology – Detailed River Network and River Quality



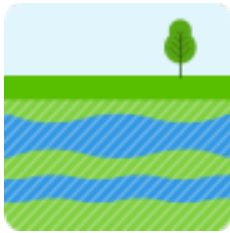
Hydrology – Detailed River Network and River Quality



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# 5. Hydrogeology and Hydrology

## 5.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (5a):

ID	Distance (m)	Direction	Designation	Description
1	0.0	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
7	64.0	N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
5	248.0	SW	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
8	295.0	SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
9	350.0	SW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

## 5.2 Aquifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	Designation	Description
1	0.0	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

## 5.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	NGR	Details
Not shown	924.0	NW	373740 445250	<p>Licence No: 2671309051</p> <p>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services</p> <p>Direct Source: Ground Water - North West Region</p> <p>Point: Underground Strata In West Bradford</p> <p>Data Type: Point</p> <p>Annual Volume (m³): 20000</p> <p>Max Daily Volume (m³): 150</p> <p>Original Application No: 8553</p> <p>Original Start Date: 13/5/1999</p> <p>Expiry Date: 12/5/2009</p> <p>Issue No: 101</p> <p>Version Start Date: 28/4/2000</p> <p>Version End Date:</p>
Not shown	924.0	NW	373740 445250	<p>Licence No: NW/071/0309/002</p> <p>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services</p> <p>Direct Source: Ground Water - North West Region</p> <p>Point: Underground Strata In West Bradford</p> <p>Data Type: Point</p> <p>Annual Volume (m³): 20000</p> <p>Max Daily Volume (m³): 150</p> <p>Original Application No: NPS/WR/001371</p> <p>Original Start Date: 27/8/2009</p> <p>Expiry Date: 31/3/2025</p> <p>Issue No: 1</p> <p>Version Start Date: 27/8/2009</p> <p>Version End Date:</p>
Not shown	973.0	NW	373730 445300	<p>Licence No: 2671309051</p> <p>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services</p> <p>Direct Source: Ground Water - North West Region</p> <p>Point: Underground Strata At West Bradford</p> <p>Data Type: Point</p> <p>Annual Volume (m³): 20000</p> <p>Max Daily Volume (m³): 150</p> <p>Original Application No: 8553</p> <p>Original Start Date: 13/5/1999</p> <p>Expiry Date: 12/5/2009</p> <p>Issue No: 101</p> <p>Version Start Date: 28/4/2000</p> <p>Version End Date:</p>
Not shown	973.0	NW	373730 445300	<p>Licence No: NW/071/0309/002</p> <p>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services</p> <p>Direct Source: Ground Water - North West Region</p> <p>Point: Underground Strata At West Bradford</p> <p>Data Type: Point</p> <p>Annual Volume (m³): 20000</p> <p>Max Daily Volume (m³): 150</p> <p>Original Application No: NPS/WR/001371</p> <p>Original Start Date: 27/8/2009</p> <p>Expiry Date: 31/3/2025</p> <p>Issue No: 1</p> <p>Version Start Date: 27/8/2009</p> <p>Version End Date:</p>
Not shown	973.0	NW	373730 445300	<p>Licence No: 2671309051</p> <p>Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services</p> <p>Direct Source: Ground Water - North West Region</p> <p>Point: Underground Strata At West Bradford</p> <p>Data Type: Point</p> <p>Annual Volume (m³): -</p> <p>Max Daily Volume (m³): -</p> <p>Original Application No: 8553</p> <p>Original Start Date: -</p> <p>Expiry Date: 12/5/2009</p> <p>Issue No: 101</p> <p>Version Start Date: 28/4/2000</p> <p>Version End Date:</p>
Not shown	1430.0	SE	375200 443400	<p>Licence No: 2671309038</p> <p>Details: Dust suppression</p> <p>Direct Source: Ground Water - North West Region</p> <p>Point: "bankfield Quarry, Clitheroe, Lancs"</p> <p>Data Type: Point</p> <p>Annual Volume (m³): -</p> <p>Max Daily Volume (m³): -</p> <p>Original Application No: 4989</p> <p>Original Start Date: 15/12/1976</p> <p>Expiry Date: -</p> <p>Issue No: 102</p> <p>Version Start Date: 19/10/2001</p> <p>Version End Date:</p>
Not shown	1430.0	SE	375200 443400	<p>Licence No: 2671309038</p> <p>Details: Dust Suppression</p> <p>Direct Source: Ground Water - North West Region</p> <p>Point: Bankfield Quarry, Clitheroe, Lancs</p> <p>Data Type: Point</p> <p>Annual Volume (m³): 159113</p> <p>Max Daily Volume (m³): 818</p> <p>Original Application No: NPS/WR/014615</p> <p>Original Start Date: 15/12/1976</p> <p>Expiry Date: -</p> <p>Issue No: 104</p> <p>Version Start Date: 26/9/2013</p> <p>Version End Date:</p>

## 5.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	NGR	Details
Not shown	745.0	E	374900 444200	Licence No: 2671309016 Details: Process water Direct Source: "surface, Non-tidal - North West Region" Point: "r Ribble At Clitheroe, Lancs" Data Type: Point Annual Volume (m³): - Max Daily Volume (m³): - Application No: 3114 Original Start Date: 18/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/11/1986 Version End Date:
Not shown	745.0	E	374900 444200	Licence No: 2671309016 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "surface, Non-tidal - North West Region" Point: "r Ribble At Clitheroe, Lancs" Data Type: Point Annual Volume (m³): - Max Daily Volume (m³): - Application No: 3114 Original Start Date: 18/11/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/11/1986 Version End Date:
Not shown	745.0	E	374900 444200	Licence No: 2671309016 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-tidal - North West Region Point: R Ribble At Clitheroe, Lancs Data Type: Point Annual Volume (m³): 2000240 Max Daily Volume (m³): 13092.48 Application No: NPS/WR/011727 Original Start Date: 18/11/1966 Expiry Date: - Issue No: 101 Version Start Date: 18/12/2012 Version End Date:
Not shown	745.0	E	374900 444200	Licence No: 2671309016 Details: Process Water Direct Source: Surface, Non-tidal - North West Region Point: R Ribble At Clitheroe, Lancs Data Type: Point Annual Volume (m³): 2000240 Max Daily Volume (m³): 13092.48 Application No: NPS/WR/011727 Original Start Date: 18/11/1966 Expiry Date: - Issue No: 101 Version Start Date: 18/12/2012 Version End Date:

## 5.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (5c):

ID	Distance (m)	Direction	NGR	Details	
Not shown	924.0	NW	373740 445250	Licence No: 2671309051 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: Underground Strata In West Bradford Data Type: Point	Annual Volume (m³): 20000 Max Daily Volume (m³): 150 Original Application No: 8553 Original Start Date: 13/5/1999 Expiry Date: 12/5/2009 Issue No: 101 Version Start Date: Version End Date:
Not shown	924.0	NW	373740 445250	Licence No: NW/071/0309/002 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: Underground Strata In West Bradford Data Type: Point	Annual Volume (m³): 20000 Max Daily Volume (m³): 150 Original Application No: NPS/WR/001371 Original Start Date: 27/8/2009 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:
Not shown	973.0	NW	373730 445300	Licence No: 2671309051 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: Underground Strata At West Bradford Data Type: Point	Annual Volume (m³): 20000 Max Daily Volume (m³): 150 Original Application No: 8553 Original Start Date: 13/5/1999 Expiry Date: 12/5/2009 Issue No: 101 Version Start Date: Version End Date:
Not shown	973.0	NW	373730 445300	Licence No: 2671309051 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: Underground Strata At West Bradford Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 8553 Original Start Date: - Expiry Date: 12/5/2009 Issue No: 101 Version Start Date: Version End Date:
Not shown	973.0	NW	373730 445300	Licence No: NW/071/0309/002 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: Underground Strata At West Bradford Data Type: Point	Annual Volume (m³): 20000 Max Daily Volume (m³): 150 Original Application No: NPS/WR/001371 Original Start Date: 27/8/2009 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:

## 5.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

## 5.7 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site?

No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

## 5.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site?

Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/Intermediate Leaching Potential	I1	Soils which can possibly transmit a wide range of pollutants.
46	NW	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.

## 5.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site?

No

### 5.9.1 Biological Quality:

Database searched and no data found.

## 5.9.2 Chemical Quality:

Database searched and no data found.

---

## 5.10 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (5e):

ID	Distance (m)	Direction	Details
1A	24.0	N	River Name: West Bradford Brook Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
2A	27.0	N	River Name: - Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
3	31.0	NW	River Name: West Bradford Brook Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
4	32.0	NE	River Name: West Bradford Brook Welsh River Name: - Alternative Name: -  River Type: Primary River Main River Status: Currently Undefined
5B	32.0	NE	River Name: West Bradford Brook Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
6	35.0	N	River Name: - Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
7B	39.0	N	River Name: - Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
8	46.0	NE	River Name: - Welsh River Name: - Alternative Name: -  River Type: Culvert Main River Status: Currently Undefined
9	246.0	NW	River Name: - Welsh River Name: - Alternative Name: -  River Type: Tertiary River Main River Status: Currently Undefined
10	246.0	NW	River Name: West Bradford Brook Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
11	261.0	SW	River Name: Greg Sike Welsh River Name: - Alternative Name: -  River Type: Tertiary River Main River Status: Currently Undefined
12	281.0	E	River Name: - Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
13	348.0	SE	River Name: West Bradford Brook Welsh River Name: - Alternative Name: -  River Type: Primary River Main River Status: Currently Undefined
14	376.0	S	River Name: - Welsh River Name: - Alternative Name: -  River Type: Tertiary River Main River Status: Currently Undefined
15	397.0	NW	River Name: Greg Sike Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
16	405.0	E	River Name: Moor Roads Sike Welsh River Name: - Alternative Name: -  River Type: Secondary River Main River Status: Currently Undefined
17	488.0	SE	River Name: River Ribble Welsh River Name: - Alternative Name: -  River Type: Primary River Main River Status: Currently Undefined
18	500.0	SE	River Name: River Ribble Welsh River Name: - Alternative Name: -  River Type: Primary River Main River Status: Currently Undefined

## 5.11 Surface Water Features

Are there any surface water features within 250m of the study site?

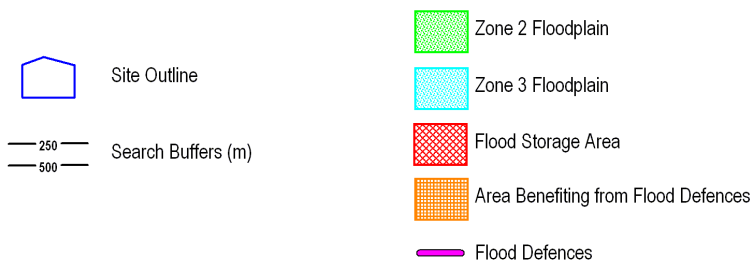
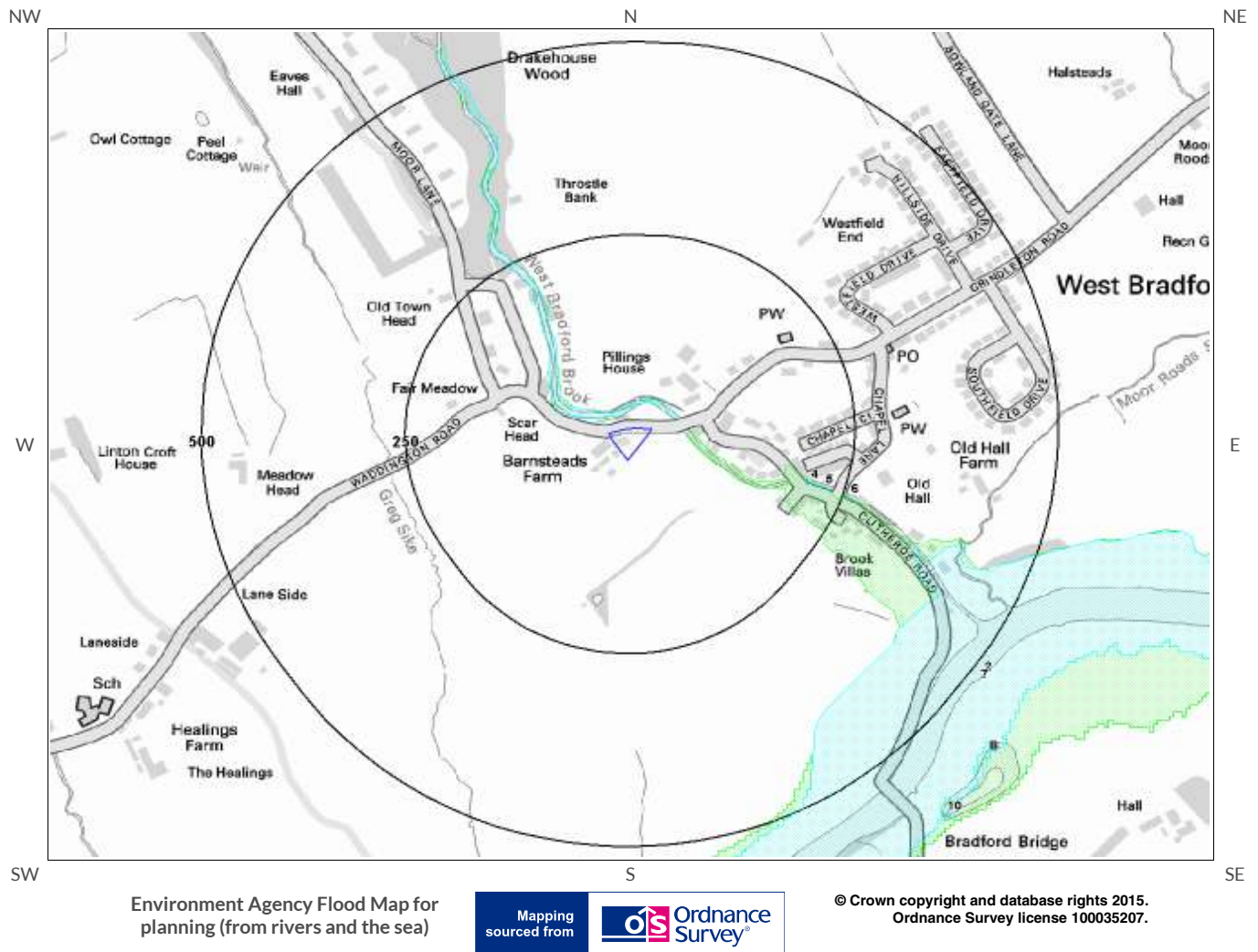
Yes

The following surface water records are not represented on mapping:

Distance (m)	Direction
19.0	N
36.0	E
192.0	E
248.0	E



# 6. Environment Agency Flood Map for planning (from rivers and the sea)





## 6. Flooding

### 6.1 Zone 2 Flooding

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning:

Is the site within 250m of an Environment Agency Zone 2 floodplain? Yes

The following floodplain records are represented as green shading on the Flood Map:

ID	Distance (m)	Direction	Update	Type
1A	18.0	N	03-Nov-2014	Zone 2 - (Fluvial Models )
2	43.0	E	03-Nov-2014	Zone 2 - (Fluvial Models )

### 6.2 Zone 3 Flooding

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning.

Is the site within 250m of an Environment Agency Zone 3 floodplain? Yes

The following floodplain records are represented as blue shading on the Flood Map:

ID	Distance (m)	Direction	Update	Type
3A	18.0	N	03-Nov-2014	Zone 3 - (Fluvial Models )
4	201.0	E	03-Nov-2014	Zone 3 - (Fluvial Models )
5	217.0	E	03-Nov-2014	Zone 3 - (Fluvial Models )

### 6.3 Flood Defences

Are there any Flood Defences within 250m of the study site? No

Database searched and no data found.

## 6.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site?

No

## 6.5 Areas benefiting from Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

## 6.6 Groundwater Flooding Susceptibility Areas

6.6.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site?

Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding?

Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

6.6.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

## 6.7 Groundwater Flooding Confidence Areas

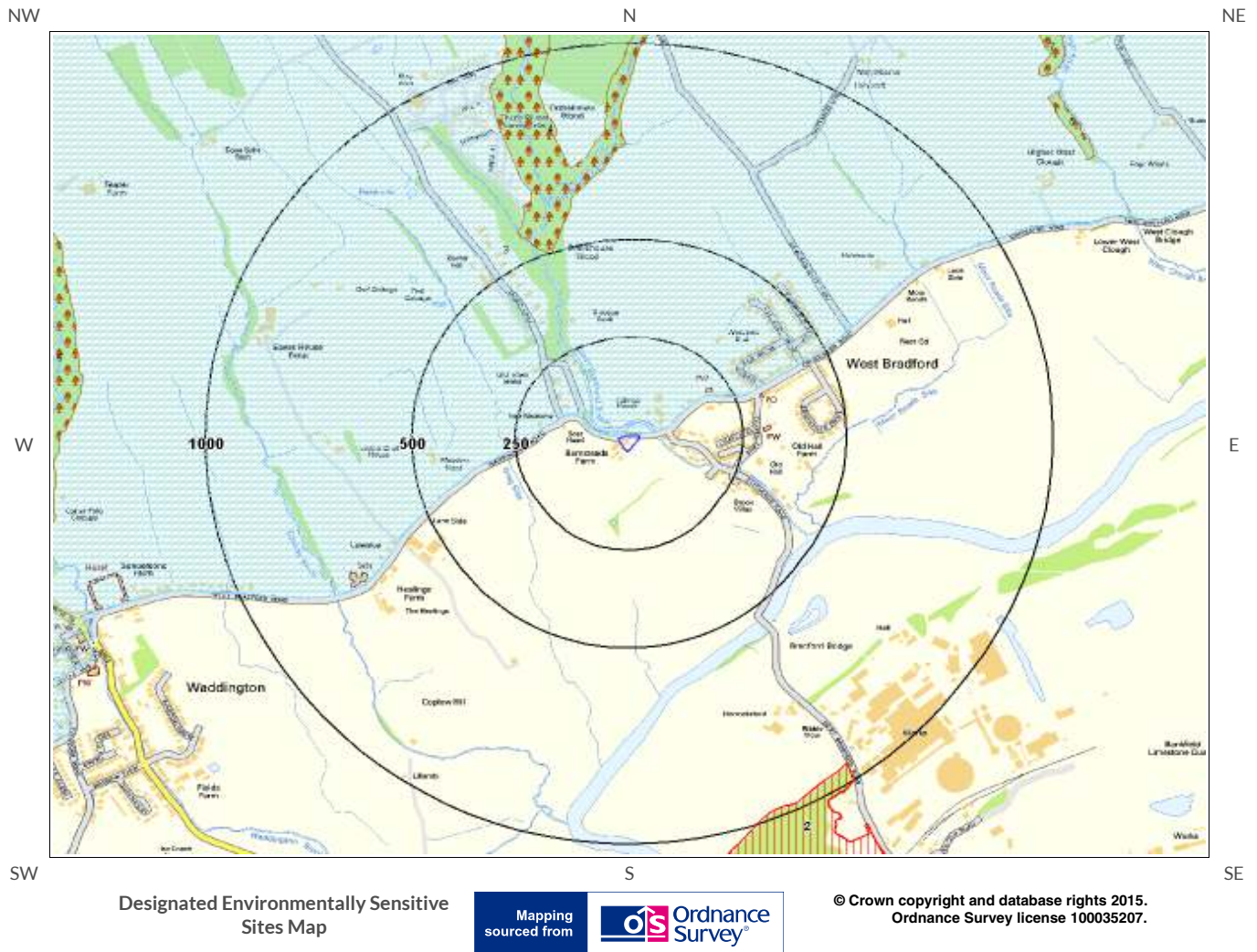
What is the British Geological Survey confidence rating in this result?

Moderate

Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

# 7. Designated Environmentally Sensitive Sites Map





## 7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?

Yes

7.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

1

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	1399.0	SE	Coplow Quarry	Natural England

7.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

7.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

7.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

7.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

## 7.6 Records of Ancient Woodland within 2000m of the study site:

6

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
4	507.0	N	UNKNOWN	Ancient and Semi-Natural Woodland
5	1291.0	NE	UNKNOWN	Ancient and Semi-Natural Woodland
6	1306.0	W	UNKNOWN	Ancient and Semi-Natural Woodland
7	1336.0	NE	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1577.0	N	UNKNOWN	Ancient Replanted Woodland
Not shown	1695.0	NW	UNKNOWN	Ancient and Semi-Natural Woodland

## 7.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
2	953.0	SE	Cross Hill Quarry	Natural England

## 7.8 Records of World Heritage Sites within 2000m of the study site:

0

Database searched and no data found.

## 7.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.



7.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

1

The following Area of Outstanding Natural Beauty (AONB) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	AONB/NSA Name	Data Source
3	5.0	N	Forest Of Bowland	Natural England

7.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

7.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

7.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

0

Database searched and no data found.



## 8. Natural Hazards Findings

### 8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **GroundSure GeoInsight**, available from our [website](#). The following information has been found:

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#### 8.1.1 Shrink Swell

What is the maximum Shrink-Swell\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

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Hazard
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Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
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#### 8.1.2 Landslides

What is the maximum Landslide\* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

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Hazard
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Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property no significant increase in insurance risk due to natural slope instability problems.
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\* This indicates an automatically generated 50m buffer and site.



### 8.1.3 Soluble Rocks

What is the maximum Soluble Rocks\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

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#### Hazard

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Significant soluble rocks are present. Problems unlikely except with considerable surface or subsurface water flow. No special actions required to avoid problems due to soluble rocks. No special ground investigation required or increased construction costs are likely. An increase in financial risk due to potential problems with soluble rocks is unlikely.

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### 8.1.4 Compressible Ground

What is the maximum Compressible Ground\* hazard rating identified on the study site?

Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

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#### Hazard

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Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

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### 8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

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#### Hazard

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Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

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## 8.1.6 Running Sand

What is the maximum Running Sand\*\* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

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### Hazard

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Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

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\* This indicates an automatically generated 50m buffer and site.



## 9. Mining

### 9.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

No

Database searched and no data found.

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### 9.2 Shallow Mining

What is the subsidence hazard relating to shallow mining on-site\*?

Negligible

\*Please note this data is searched with a 150m buffer.

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### 9.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site?

No

Guidance: No Guidance Required.

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# Contact Details

**CENTREMAPS**  
Telephone: 01886 832972  
groundsure@centremaps.co.uk  
CENTREMAPS, Brockamin House, Leigh, Worcester, London, WR6 5JU

Directors: M C Walker, MInst C.E.S., C M Walker,  
S J Hawkins BSc (Hons), S E Stewart BSc (Hons)  
Registered No. 1890261 Registered in England and Wales  
Registered Company: Laser Surveys Limited  
Brockamin House, Leigh, Worcester, WR6 5JU.

## British Geological Survey Enquiries

Kingsley Dunham Centre  
Keyworth, Nottingham NG12 5GG  
Tel: 0115 936 3143.  
Fax: 0115 936 3276.  
Email: [enquiries@bgs.ac.uk](mailto:enquiries@bgs.ac.uk)  
Web: [www.bgs.ac.uk](http://www.bgs.ac.uk)

BGS Geological Hazards Reports and general geological enquiries

## Environment Agency

National Customer Contact Centre, PO Box 544  
Rotherham, S60 1BY  
Tel: 08708 506 506  
Web: [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)  
Email: [enquiries@environment-agency.gov.uk](mailto:enquiries@environment-agency.gov.uk)

## Public Health England

Public information access office  
Public Health England, Wellington House  
133-155 Waterloo Road, London, SE1 8UG  
<https://www.gov.uk/government/organisations/public-health-england>  
Email: [enquiries@phe.gov.uk](mailto:enquiries@phe.gov.uk)  
Main switchboard: 020 7654 8000

## The Coal Authority

200 Lichfield Lane  
Mansfield  
Notts NG18 4RG  
Tel: 0345 7626 848  
DX 716176 Mansfield 5  
[www.coal.gov.uk](http://www.coal.gov.uk)

## Ordnance Survey

Adanac Drive, Southampton  
SO16 0AS  
Tel: 08456 050505

## Local Authority

Authority: Ribble Valley Borough Council  
Phone: 01200 425111  
Web: [www.ribblevalley.gov.uk](http://www.ribblevalley.gov.uk)  
Address: Council Offices, Church Walk, Clitheroe, Lancashire, BB7 2RA

## Gemapping PLC

Virginia Villas, High Street, Hartley Witney,  
Hampshire RG27 8NW  
Tel: 01252 845444

centremapslive.com  
the mapping portal from Laser Surveys



**British  
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL



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