

**Action 19.4: Appendix 4 – WML Consulting Preliminary Land Stability Assessment Clod Lane, Haslingden (Appendix 4)**

## **APPENDIX 04**

### **Groundsure Report and BGS Paper**

“ while the majority of these landslides have remained stable for over 10 000 years, reactivation may occur at any time ”

Until fairly recently the extent of landslide activity in the central Pennines and adjacent moorland areas had not been fully appreciated. Recent resurvey work by the BGS around Huddersfield had, however, highlighted the problem. Consequently, we undertook an integrated programme of geological field mapping, aerial photograph interpretation and research into archival material in the Rossendale Forest area of East Lancashire. Photographic interpretation, carried out prior to fieldwork, enabled field

- Landslides associated with glacially over-deepened valleys.
- Landslides associated with Drift filled valleys.
- Landslides associated with faulting.

This integrated approach has identified a large number of landslides throughout the survey area, particularly in the area immediately to the north of Rochdale, Bury and Bolton, and around Todmorden in West Yorkshire. Overall,

# Lancashire landslides

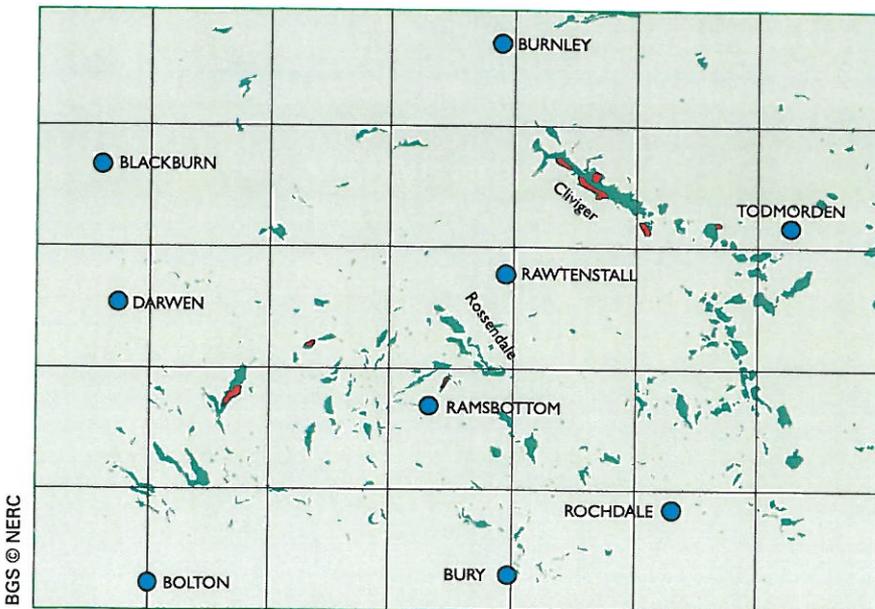
## Integrated mapping of potential geological hazards by Dick Crofts

geologists to identify target areas of landslides. Follow-up fieldwork identified additional evidence, particularly in wooded valleys, and placed the landslides in a geological context. Three major groupings of landslides were identified:

the resurvey will provide fit-for-purpose geological maps. The previous survey in the early 1920s identified only eight areas of landslide over the 600 square kilometres of the Rochdale Sheet. Following our recent survey the number of individual landslides identified has increased to over 300 (see map, *left*). The area affected by an individual slide can range enormously in scale from less than five hundred square metres to over three square kilometres. Many occur close to urban areas and may have a bearing on future development.

The majority of these landslides have occurred since the end of the last ice age some 13 000 years ago. While the majority have remained stable for over 10 000 years, reactivation may occur at any time. Landslides can be reactivated naturally as the initiating process continues to act or by the ingress of water, for example during a wet winter. Although reactivation is uncommon, it can disrupt local life as seen by the long-term closure of Calderbrook Road at Summit. Many of the landslides recognised can be classified as multiple or successive rotational slides and flows, but a significant number can be shown to be rock falls and topples.

Until about 13 000 years ago the Rochdale area was covered by up to



Map of east Lancashire indicating over three hundred individual landslides which have been identified following the recent resurvey (dark green areas). The previous survey in the early 1920s identified only eight areas of landslide over the same area (red areas). The survey was supported by archival research and the interpretation of aerial photographs.

BGS © NERC

1000 metres of ice, rather like Greenland today. As the ice melted, the pressure on the underlying rock was released while, at the same time, large volumes of water were freed. Over-steepened valleys were produced by the ice and escaping waters as, for example, in the Walsden and Rossendale valleys, and most spectacularly in Cheesden Brook and Cliviger. With the supporting ice removed, the valley sides collapsed, often quite catastrophically. Material cascaded down the steep slopes, leaving a rock scar at the highest point and a mix of sandstone and mudstone blocks in a jumbled mass to the valley floor. Many of these areas quickly stabilised and have generally not moved in the past 10 000 years.

Where the rock scar is formed of sandstone, any fractured blocks are often unstable. If the dip is into the valley, further extreme events may cause the blocks to topple into the valley. However, roads are commonly built across these areas and remain stable. In both the Cliviger and Walsden valleys, railway tunnels have been driven through the slipped material with no significant problems.

Further problems can arise where glacial meltwater channels cut across moderately steep sandstone dip slopes. The lack of support in the channel can cause 'bedding plane slides' on the upslope side of the channel. The slide may only be shallow but the area affected can be large. An impressive example of this is the Rushy Hill slide on the northern edge of Rochdale, where a 5 metre cut 500 metres long has caused an area of approximately 500 000 square metres to fail.

Other glacially deepened valleys were dammed by ice and flooded, eventually becoming filled with a complex deposit of sand and clay. As the ice retreated, the ponded water was released, initiating the erosion. Soon after, modern drainage established quickly within these valleys full of soft sediment. Examples within the area occur at Belmont, Edenfield and Rawtenstall. Down-cutting led to progressive failure of the soft sediment, as the stream eroded deeper into the fill. The slides are often complex in nature, with rotational slides and flows, the remnants of which now drape the valley as a series of lumpy mounds.

These areas potentially remain significantly unstable, not only because down-cutting may continue, but because the sediment is often saturated with water which lubricates further movement. Any interference with these areas by cutting or loading can lead to major disruption and unexpected costs. For example, a serious problem was encountered at Ewood Bridge in the upper Irwell Valley. On the west side of the valley, a housing development had to be abandoned while, on the east side, preventive measures were needed to ensure the stability of the A56 trunk road.

The Rochdale area is also affected by a number of large geological faults which are of ancient origin, being initiated more than 250 million years ago. Any movement on these faults in the past two million years will have been insignificant. However, they remain as possible lines of weakness and conduits for water movement.

During the last ice age, these faults would have been subject to pressure from the overlying ice. As the pressure was released the partially unsupported footwall often collapsed in large rotational failures. This action has initiated some of the slides in the northern part of the Cliviger Valley and, to a lesser extent, in the Naden Valley north-west of Rochdale.

As pressure builds on most of our urban areas to expand or improve their transport infrastructure, it is vitally important to consider the geological setting. An appreciation of the geology and, significantly, the recent geological history should always be taken into account during an early stage of planning new developments. Our newly released maps for north-west England will provide a much-needed modern database on which to base these decisions. ■



*Landslides in the Cliviger Valley near Cornholme.*



*Landslides on the south side of the Rossendale Valley.*

For further information, contact:

Dick Crofts  
Tel: +44(0)15 936 3248  
e-mail: [rgc@bgs.ac.uk](mailto:rgc@bgs.ac.uk)

CENTREMAPS  
Brockamin House, ,  
Worcester, WR6 5JU

GroundSure Reference: CMAPS-CM-211792-7904-010313EDR  
Your Reference: 7904  
Report Date: Mar 1, 2013  
Report Delivery Method: **Email - pdf**  
Client Email: andy@centremaps.com

## **GroundSure EnviroInsight**

**Address: LINDON PARK ROAD, GREENFIELD, ROSSENDALE,  
BB4 6LZ**

Dear Sir/Madam,

Thank you for placing your order with CENTREMAPS. Please find enclosed the GroundSure EnviroInsight as requested

If you need any further assistance, please do not hesitate to contact our helpline on 01886 832972 quoting the above CENTREMAPS reference number.

Yours faithfully,

CENTREMAPS

Enc.  
GroundSure EnviroInsight

CENTREMAPS  
Brockamin House,  
Worcester, WR6 5JU

Report Reference: CMAPS-CM-  
211792-7904-  
010313GEO  
Your Reference: 7904  
Report Date Mar 1, 2013  
Report Delivery Email - pdf  
Method:

## **GroundSure GeoInsight**

**Address: LINDON PARK ROAD, GREENFIELD, ROSSENDALE,  
BB4 6LZ**

Dear Sir/Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure GeoInsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 01886 832972 quoting the above CENTREMAPS reference number.

Yours faithfully,

CENTREMAPS

Enc.  
GroundSure GeoInsight

# GroundSure GeoInsight

Address: LINDON PARK ROAD, GREENFIELD, ROSSENDALE, BB4 6LZ

Date: Mar 1, 2013

Report Reference: CMAPS-CM-211792-7904-010313GEO

Your Reference: 7904



Brought to you by CENTREMAPS

# Aerial Photograph of Study Site



Aerial photography supplied by Getmapping PLC.  
© Copyright Getmapping PLC 2003. All Rights Reserved.

Site Name: LINDON PARK  
ROAD, GREENFIELD, ROSSENDALE, BB4 6LZ  
Grid Reference: 379517,421268  
Size of Site: 9.72 ha

# Overview of Findings

The GroundSure GeoInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the 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.

Report Section	Number of records found within (X) m of the study site boundary
<b>1. Geology</b>	Description
<b>1.1 Artificial Ground,</b>	
1.1.1 Is there any Artificial Ground /Made Ground present beneath the study site?*	No
1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
<b>1.2 Superficial Geology &amp; Landslips</b>	
1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
1.2.2 Are there any records relating to permeability of superficial geology within the study site* boundary?	Yes
1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
1.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	Yes
<b>1.3 Bedrock, Solid Geology &amp; Faults</b>	
1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
1.3.2 Are there any records relating to permeability of bedrock within the study site* boundary?	Yes
1.3.3 Are there any records of faults within 500m of the study site boundary?	No
1.3.4 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level
1.3.5 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

\* This includes an automatically generated 50m buffer zone around the site

Source:Scale 1:50,000 BGS Sheet No:076

[Report Reference: CMAPS-CM-211792-7904-010313GEO](#)

2. Ground Workings	on-site	0-50	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	1	4	14	-	-
2.2 Historical Underground Workings Features from Small Scale Mapping	0	0	0	0	8
2.3 Current Ground Workings	0	0	0	0	12

3. Mining, Extraction & Natural Cavities	on-site	0-50	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	8
3.2 Coal Mining	1	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining*	1	0	0	1	1
3.5 Non-Coal Mining Cavities	0	0	0	0	1
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0

\*This includes an automatically generated 50m buffer zone around the site

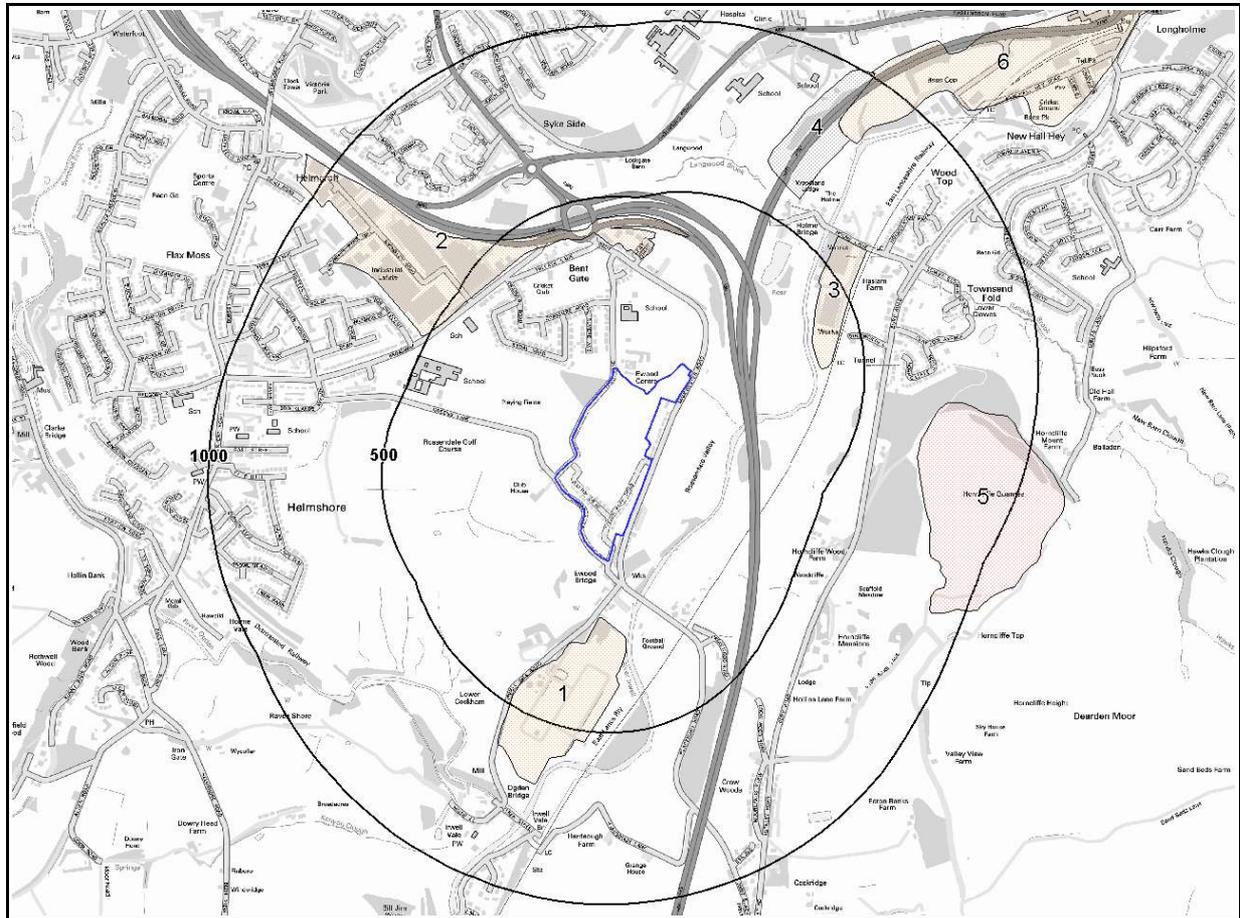
4. Natural Ground Subsidence	on-site*	0-50	51-250	251-500	501-1000
4.1 Shrink-Swell Clay	Very Low	-	-	-	-
4.2 Landslides	High	-	-	-	-
4.3 Ground Dissolution of Soluble Rocks	Null	-	-	-	-
4.4 Compressible Deposits	Negligible	-	-	-	-
4.5 Collapsible Deposits	Very Low	-	-	-	-
4.6 Running Sand	Very Low	-	-	-	-

\* This includes an automatically generated 50m buffer zone around the site

5. Borehole Records	on-site	0-50	51-250	251-500	501-1000
5.1 BGS Recorded Boreholes	7	1	6	-	-

6. Estimated Background Soil Chemistry	on-site	0-50	51-250	251-500	501-1000
6.1 Records of Background Soil Chemistry	3	2	0	-	-

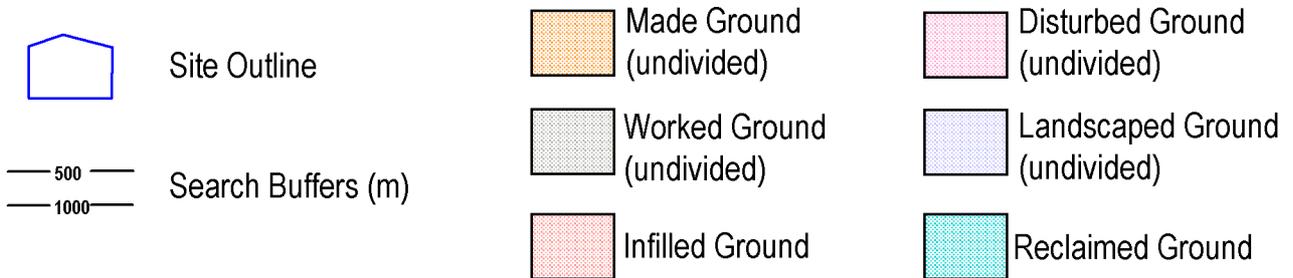
# 1.1 Artificial Ground Map



Artificial Ground Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

---

# 1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:076

## 1.1.1 Artificial/Made Ground

**Are there any records of Artificial/Made Ground within 500m of the study site boundary? Yes**

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	165.0	S	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
2	329.0	N	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT
3	358.0	E	MGR-MGRD	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

---

## 1.1.2 Permeability of Artificial Ground

**Are there any records relating to permeability of artificial ground within the study site\* boundary? No**

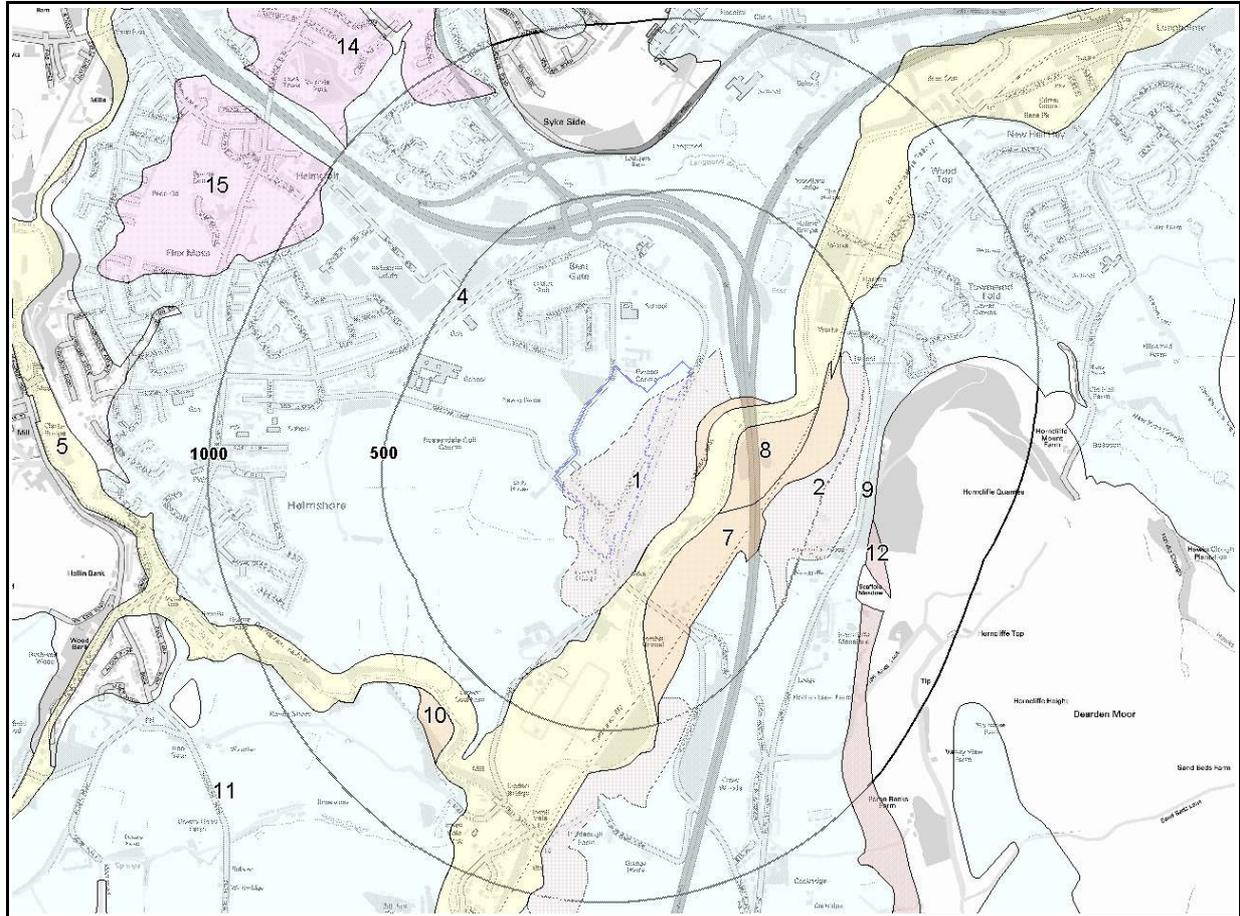
Database searched and no data found.

---

---

\* This includes an automatically generated 50m buffer zone around the site.

# 1.2 Superficial Deposits and Landslips Map



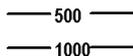
Superficial and Landslips Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



Site Outline



Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

## 1.2 Superficial Deposits and Landslips

### 1.2.1 Superficial Deposits/Drift Geology

**Are there any records of Superficial Deposits/Drift Geology within 500m of the study site boundary? Yes**

ID	Distance (m)	Direction	Lex Code	Description	Rock Description
4	0.0	On Site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
5	78.0	SE	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
6	94.0	SE	RTD1-SAGR	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL
7	155.0	SE	RTD2-SAGR	RIVER TERRACE DEPOSITS, 2	SAND AND GRAVEL
8	211.0	SE	RTD1-SAGR	RIVER TERRACE DEPOSITS, 1	SAND AND GRAVEL
9	305.0	SE	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

### 1.2.2 Permeability of Superficial Ground

**Are there any records relating to permeability of superficial ground within the study site\* boundary? Yes**

Distance (m)	Direction	Flow type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	High	Low

### 1.2.3 Landslip

**Are there any records of Landslip within 500m of the study site boundary? No**

ID	Distance (m)	Direction	Lex Code	Description	Rock Description
1	0.0	On Site	SLIP-UNKN	LANDSLIDE DEPOSITS	UNKNOWN/UNCLASSIFIED ENTRY
2	352.0	E	SLIP-UNKN	LANDSLIDE DEPOSITS	UNKNOWN/UNCLASSIFIED ENTRY
3	434.0	S	SLIP-UNKN	LANDSLIDE DEPOSITS	UNKNOWN/UNCLASSIFIED ENTRY

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

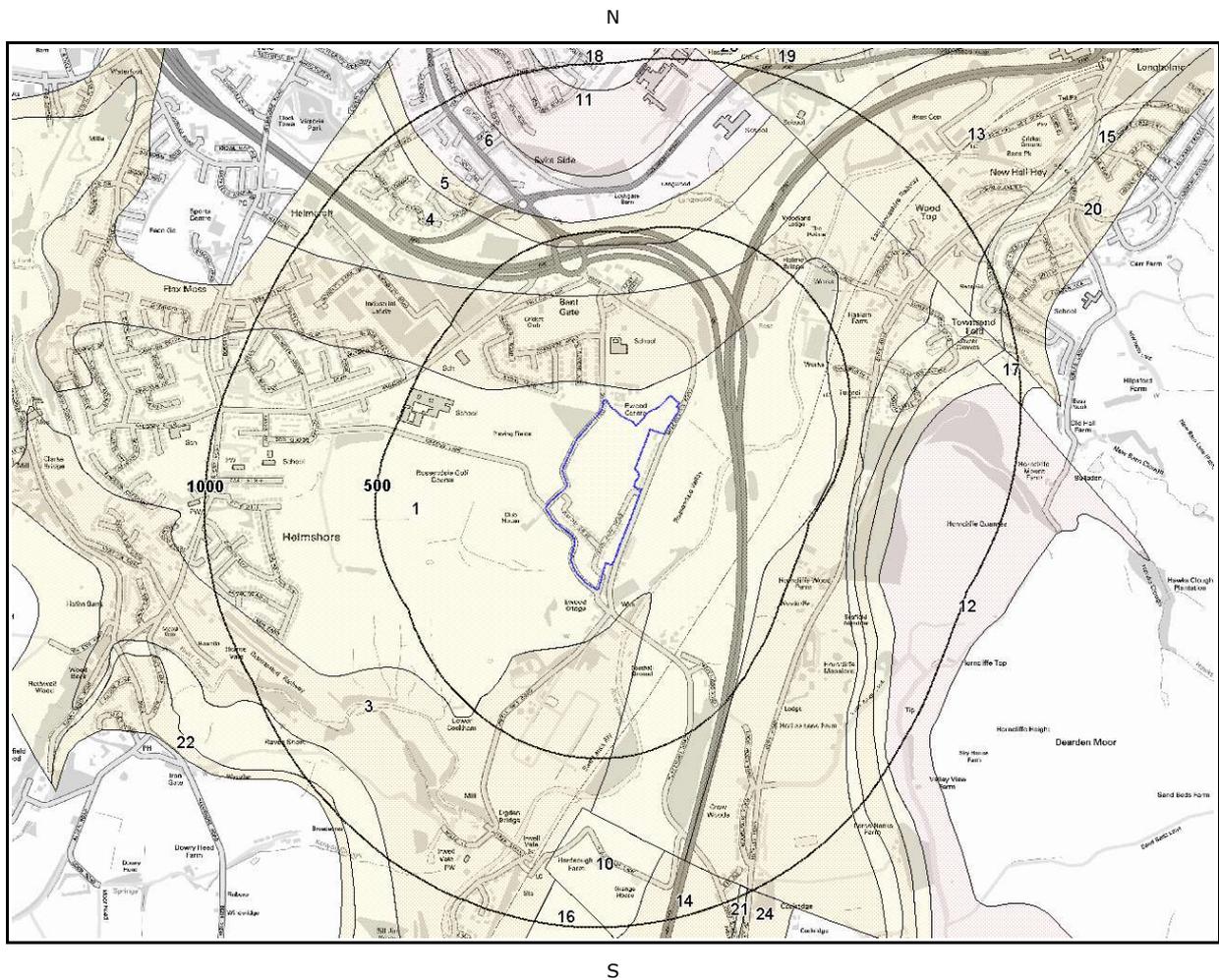
### 1.2.4 Landslip Permeability

**Are there any records relating to permeability of landslips within the study site\* boundary? Yes**

Distance (m)	Direction	Flow type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Very High	Very Low

\*This includes an automatically generated 50m buffer zone around the site.

# 1.3 Bedrock and Faults Map



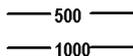
Bedrock & Faults Deposits Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



Site Outline



Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

Report Reference: [CMAPS-CM-211792-7904-010313GEO](#)

## 1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:076

### 1.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	MARSD-MDSI	Marsden Formation - Mudstone And Siltstone	Marsdenian
2	42.0	N	BBS-SDST	Brooksbottoms Grit - Sandstone	Marsdenian
3	96.0	SE	HSG-SDST	Helmshore Grit - Sandstone	Marsdenian
4	313.0	N	MARSD-MDSI	Marsden Formation - Mudstone And Siltstone	Marsdenian
5	453.0	N	HLBG-SDST	Holcombe Brook Grit - Sandstone	Marsdenian

### 1.3.2 Permeability of Bedrock Ground

**Are there any records relating to permeability of bedrock ground within the study site\* boundary? Yes**

Distance (m)	Direction	Flow type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Low	Low
42.0	N	Fracture	High	Moderate

### 1.3.3 Faults

**Are there any records of Faults within 500m of the study site boundary? No**

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

### 1.3.4 Radon Affected Areas

**Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?**

**The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level**

### 1.3.5 Radon Protection

**Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?**

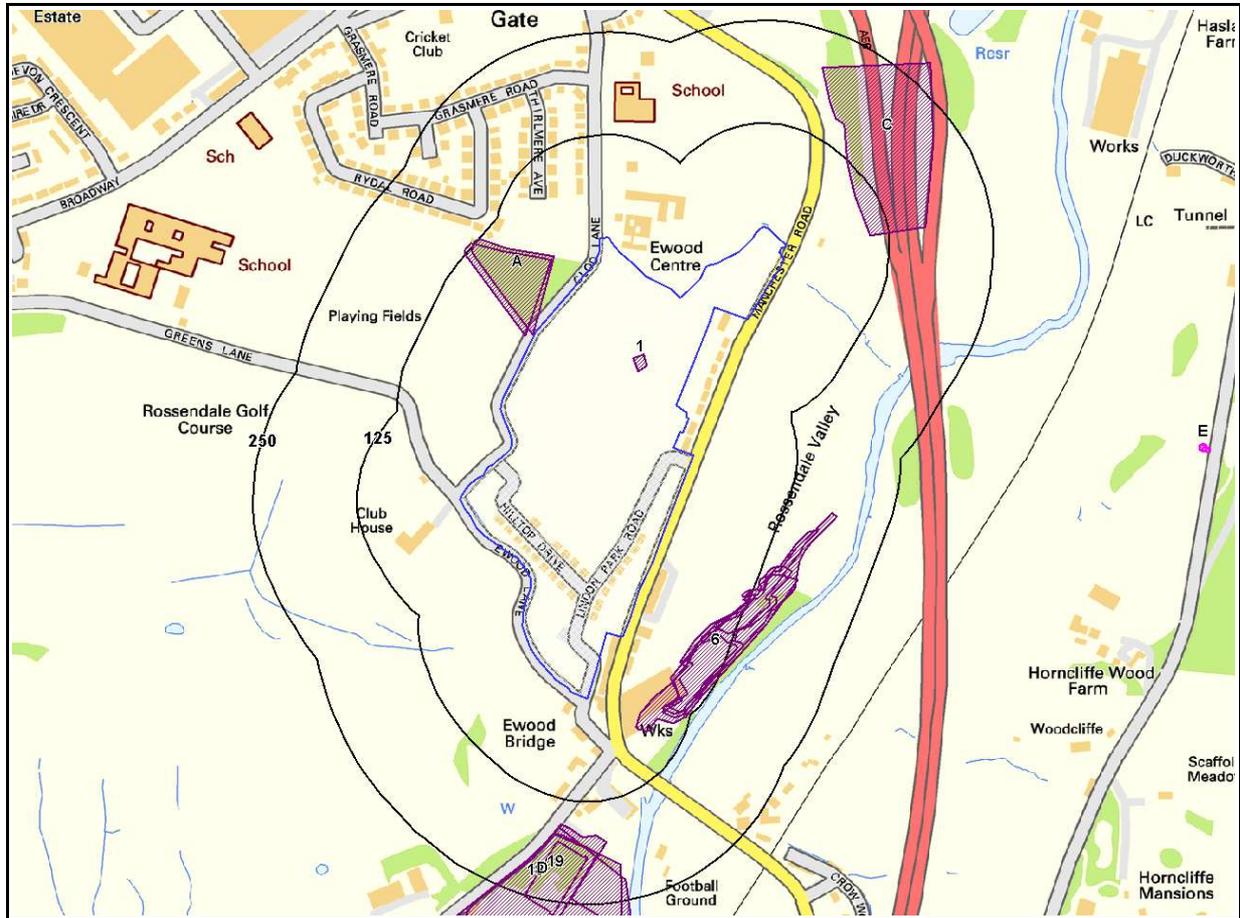
\* This includes an automatically generated 50m buffer zone around the site.

---

**No radon protective measures are necessary**

---

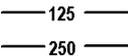
## 2. Ground Workings Map



Ground Workings Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207

-  Site Outline
-  Historic Surface Ground Workings
-  Historic Underground Workings
-  Current Ground Workings
-  Search Buffers (m)

## 2. Ground Workings

### 2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

**Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes**

The following Historical Surface Ground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
1	0.0	On Site	379538,421390	Sewage Settling Tanks	1892
2A	1.0	NW	379385,421482	Unspecified Heap	1950
3A	9.0	NW	379379,421480	Unspecified Heap	1938
4A	9.0	NW	379379,421480	Unspecified Heap	1928
5A	9.0	NW	379379,421480	Unspecified Heap	1909
6	66.0	E	379630,421036	Reservoir	1892
7B	75.0	SE	379658,421074	Reservoir	1938
8B	75.0	SE	379658,421074	Reservoir	1928
9B	76.0	SE	379669,421082	Reservoir	1909
10	82.0	E	379646,421053	Pond	1965
B					
11	82.0	E	379646,421053	Reservoir	1950
B					
12	99.0	E	379824,421652	Cuttings	1988
C					
13	99.0	E	379824,421652	Cuttings	1977
C					
14	156.0	S	379357,420540	Sewage Works	1950
D					
15	160.0	S	379362,420538	Sewage Works	1988
D					
16	168.0	S	379313,420591	Sewage Works	1938
D					
17	168.0	S	379313,420591	Sewage Works	1927
D					
18	169.0	S	379346,420592	Sewage Works	1908
19	177.0	S	379437,420762	Filter Beds	1908

### 2.2 Historical Underground Workings Features derived from Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

**Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes**

The following Historical Underground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
20E	550.0	SE	380215,421287	Unspecified Disused Shaft	1992
21E	550.0	SE	380215,421287	Unspecified Disused Shaft	1978
22E	550.0	SE	380215,421287	Unspecified Disused Shaft	1968
23E	553.0	SE	380217,421284	Unspecified Old Shaft	1950
24E	559.0	SE	380222,421284	Unspecified Old Shaft	1938

Report Reference: [CMAPS-CM-211792-7904-010313GEO](#)

25E	559.0	SE	380222,421284	Old Coal Shaft	1928
26E	559.0	SE	380222,421284	Old Coal Shaft	1908
27E	559.0	SE	380222,421284	Old Coal Shaft	1891

## 2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

**Are there any BGS Current Ground Workings within 1000m of the study site boundary?** **Yes**

The following Current Ground Workings information is provided by British Geological Society:

ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	720.0	SE	3803 66,42 1218	Sandstone	Horncliffe Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	724.0	E	3803 94,42 1276	Sandstone	Horncliffe Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	758.0	E	3804 49,42 1345	Sandstone	Horncliffe Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	787.0	N	3795 00,42 2330	Sandstone	Pike Low	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	798.0	E	3804 60,42 1241	Sandstone	Horncliffe Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	805.0	SW	3787 19,42 0623	Sandstone	Raven Shore	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	818.0	SE	3804 60,42 1186	Sandstone	Horncliffe Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	836.0	N	3797 15,42 2393	Sandstone	Lower Pits Lowe	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	851.0	E	3803 78,42 0923	Sandstone	Horncliffe Wood	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	942.0	N	3792 52,42 2454	Sandstone	Lane Side	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	970.0	NE	3805 60,42 2005	Sandstone	Lower New Hall Hey	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

---

Not shown	975.0	SE	3803 89,42 0619	Sandstone	Hollin's Farm	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
-----------	-------	----	-----------------------	-----------	---------------	--	--------

---

---

# 3. Mining, Extraction & Natural Cavities Map



Mining, Extraction & Natural Cavities Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



## 3. Mining, Extraction & Natural Cavities

### 3.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities.

**Are there any Historical Mining areas within 1000m of the study site boundary?** **Yes**

The following Historical Mining information is provided by Groundsure :

ID	Distance (m)	Direction	NGR	Details	Date
5A	550.0	SE	380215,421 287	Unspecified Disused Shaft	1968
6A	550.0	SE	380215,421 287	Unspecified Disused Shaft	1992
7A	550.0	SE	380215,421 287	Unspecified Disused Shaft	1978
8A	553.0	SE	380217,421 284	Unspecified Old Shaft	1950
9A	559.0	SE	380222,421 284	Unspecified Old Shaft	1938
10A	559.0	SE	380222,421 284	Old Coal Shaft	1928
11A	559.0	SE	380222,421 284	Old Coal Shaft	1908
12A	559.0	SE	380222,421 284	Old Coal Shaft	1891

### 3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

**Are there any Coal Mining areas within 1000m of the study site boundary?** **Yes**

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

### 3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

**Are there any JPB Mining areas within 1000m of the study site boundary?** **No**

The following information provided by JPB is not represented on Mapping:

Database searched. No results found.

### 3.4 Non – Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

**Are there any Non-Coal Mining areas within 1000m of the study site boundary? Yes**

The following non-coal mining information is provided by the BGS:

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
1	0.0	On Site	Not available	Vein Mineral	Rare - Infrequent minor mining may have occurred but restricted in extent.
2	287.0	E	Not available	Vein Mineral	Rare - Infrequent minor mining may have occurred but restricted in extent.
Not shown	980.0	S	Not available	Vein Mineral	Rare - Infrequent minor mining may have occurred but restricted in extent.

### 3.5 Non – Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

**Are there any Non-Coal Mining cavities within 1000m of the study site boundary? Yes**

The following Non-Coal Mining Cavities information provided by Peter Brett Associates:

ID	Distance (m)	Direction	NGR	Address	Superficial Deposits	Bedrock Deposits	Extracted Mineral
4	892.0	SE	380500, 421100	Horncliffe Quarries, Lancashire	-	-	Firestone, Freestone, Hearthstone, Honestone, Ragstone, Sandstone, Scythestone, Silver Sand, Whetstone

### 3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

**Are there any Natural Cavities within 1000m of the study site boundary? No**

Database searched and no data found.

### 3.7 Brine Extraction

This dataset provides information from the Brine Compensation Board which has been discontinued and is now covered by the Coal Authority.

**Are there any Brine Extraction areas within 1000m of the study site boundary? No**

Database searched and no data found.

[Report Reference: CMAPS-CM-211792-7904-010313GEO](#)

---

## 3.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

**Are there any Gypsum Extraction areas within 1000m of the study site boundary?** **No**

Database searched and no data found.

---

## 3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level. More detailed information on potential Tin Mining may be found in Section 3.4 – Non-Coal Mining Hazards.

**Are there any Tin Mining areas within 1000m of the study site boundary?** **No**

Database searched and no data found.

---

## 3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

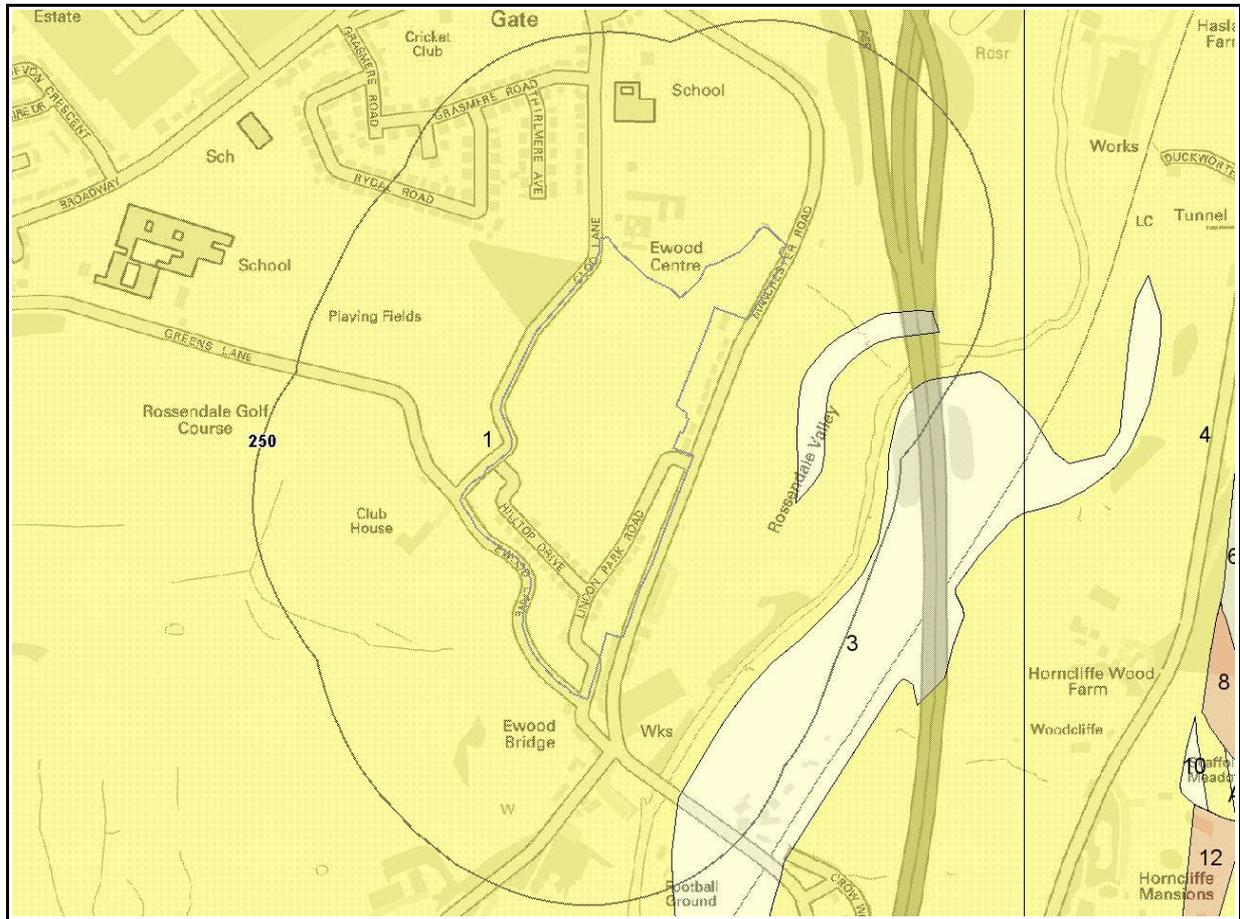
**Are there any Clay Mining areas within 1000m of the study site boundary?** **No**

Database searched and no data found.

---

# 4. Natural Ground Subsidence

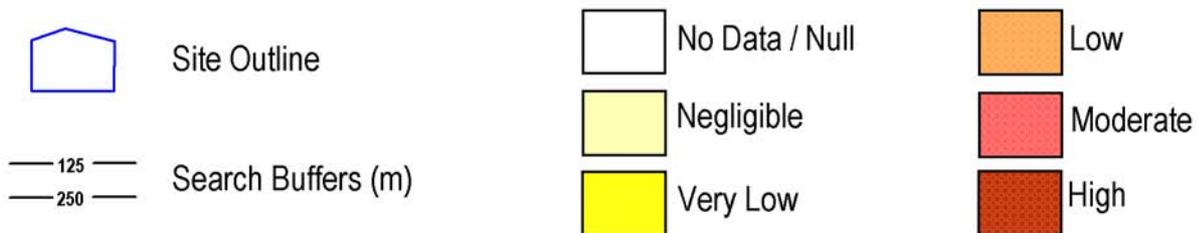
## 4.1 Shrink-Swell Clay Map



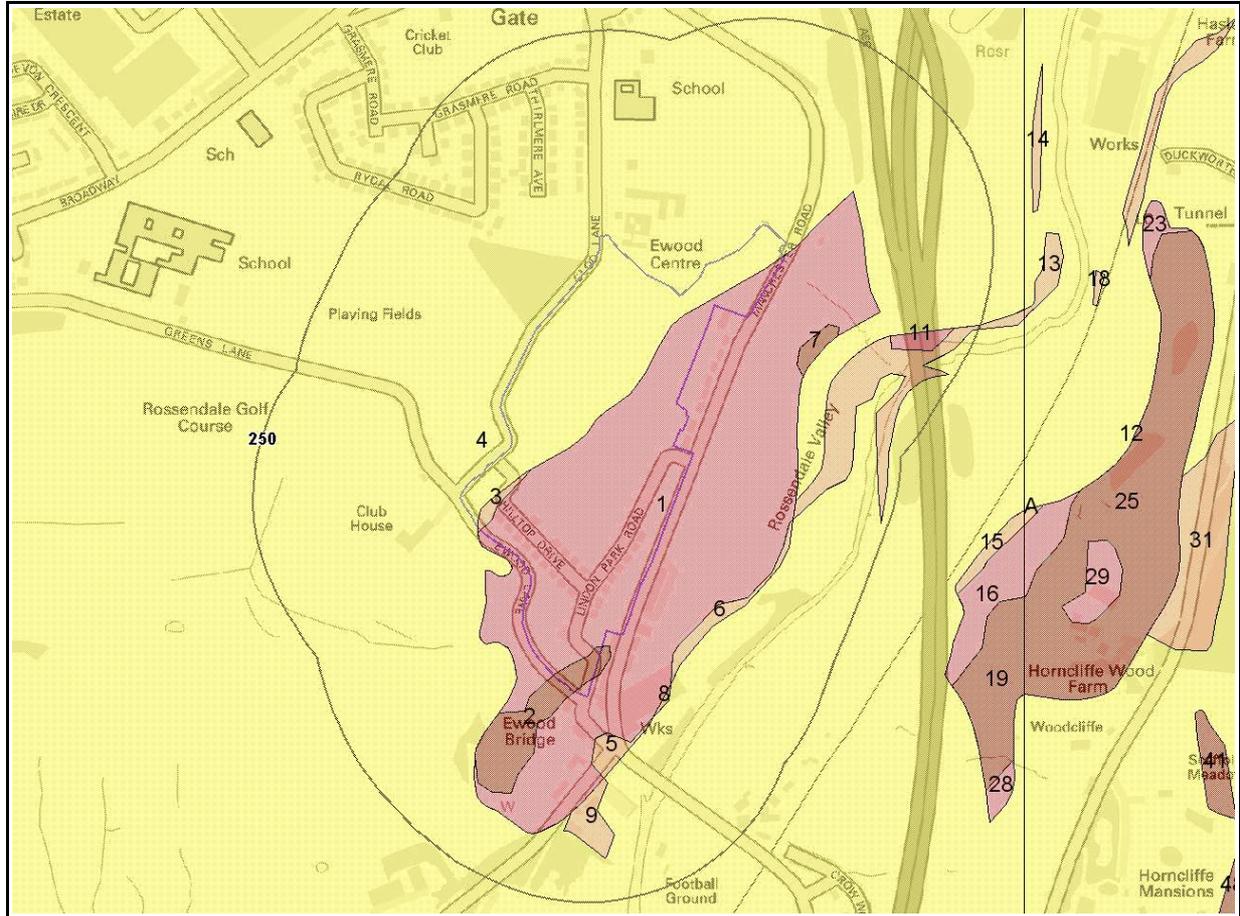
Shrink-Swell Clay Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



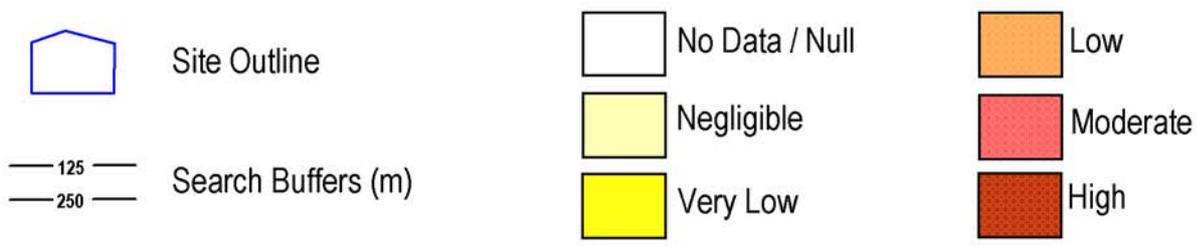
# 4.2 Landslides Map



Landslides Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



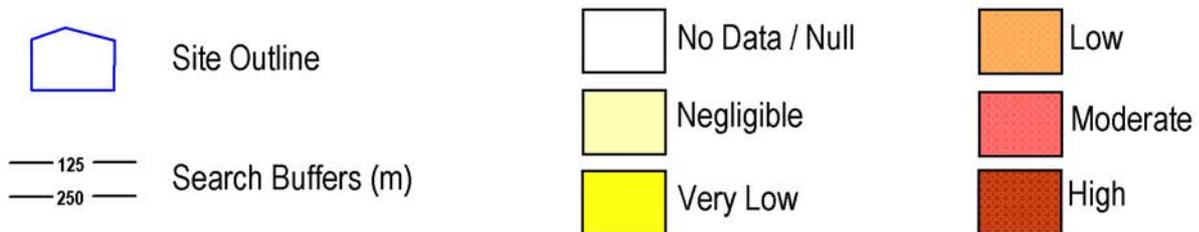
# 4.3 Ground Dissolution Soluble Rocks Map



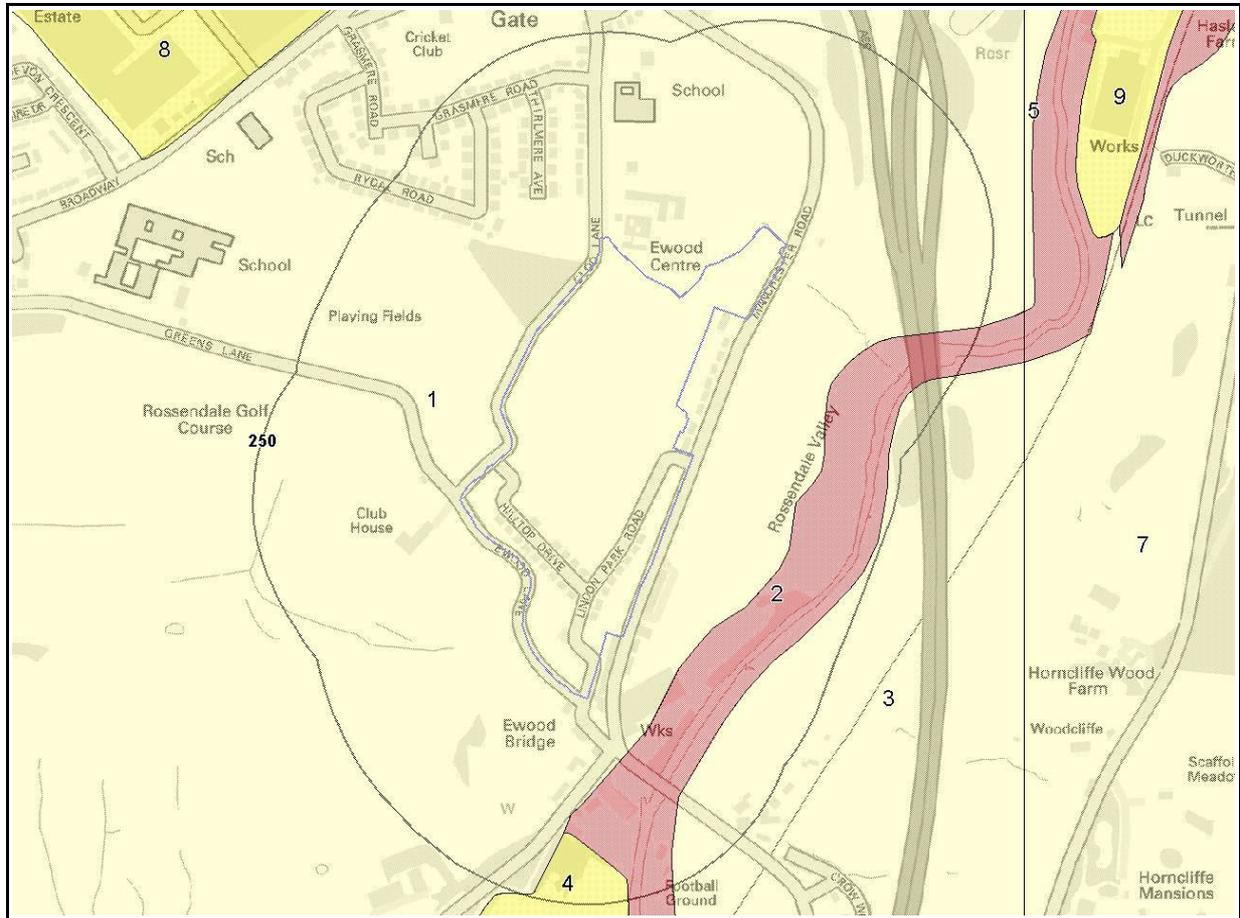
Ground Dissolution Soluble Rocks Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



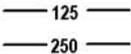
# 4.4 Compressible Deposits Map



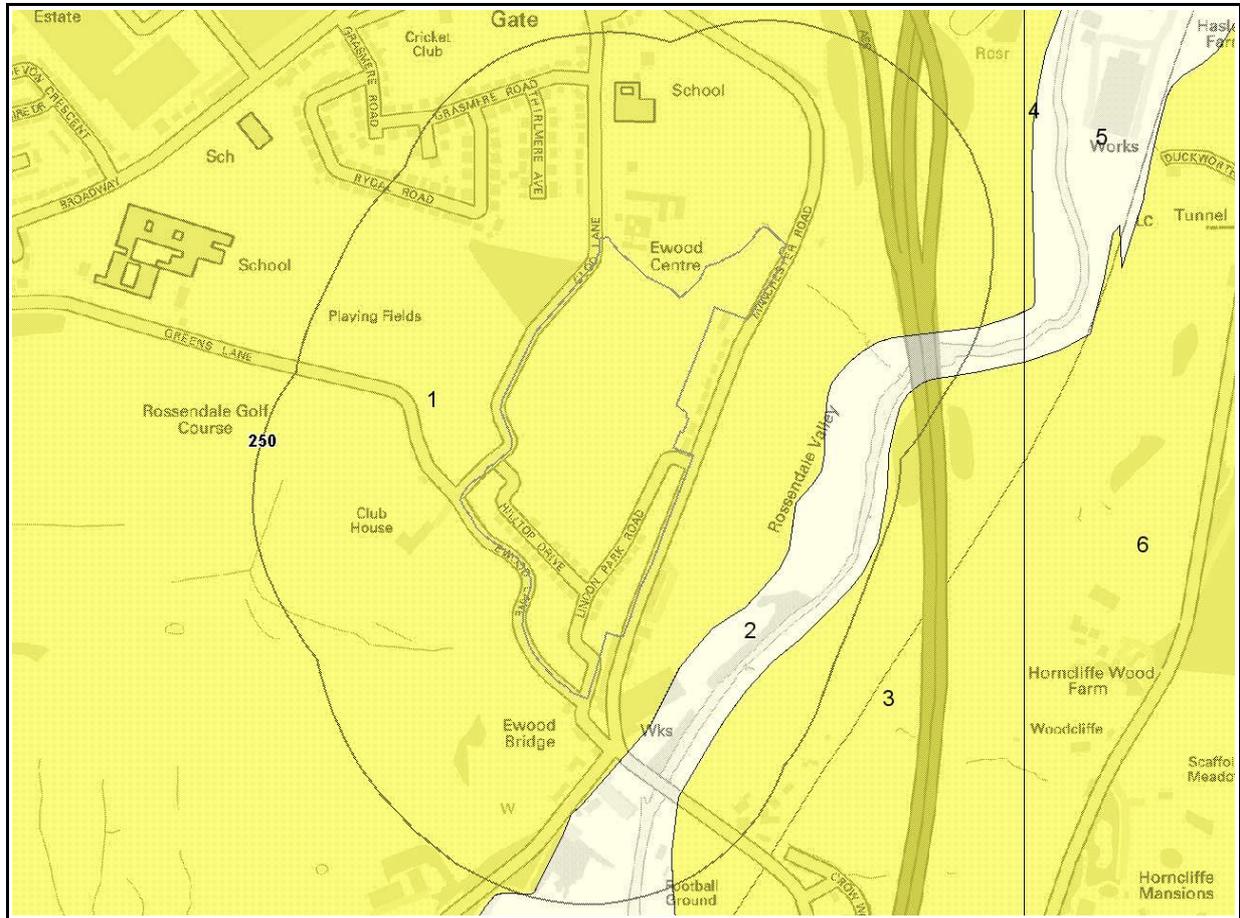
Compressible Deposits Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207

	Site Outline		No Data / Null		Low
	Search Buffers (m)		Negligible		Moderate
			Very Low		High

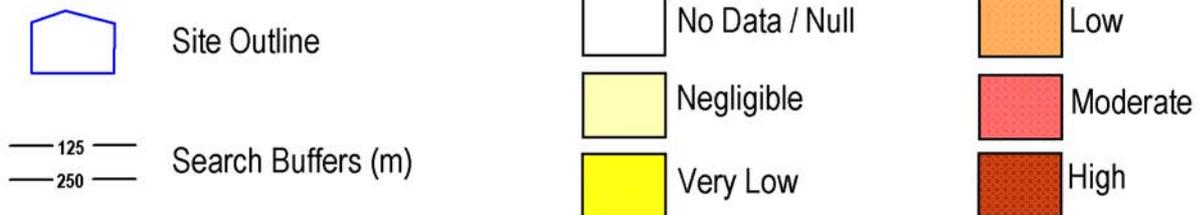
# 4.5 Collapsible Deposits Map



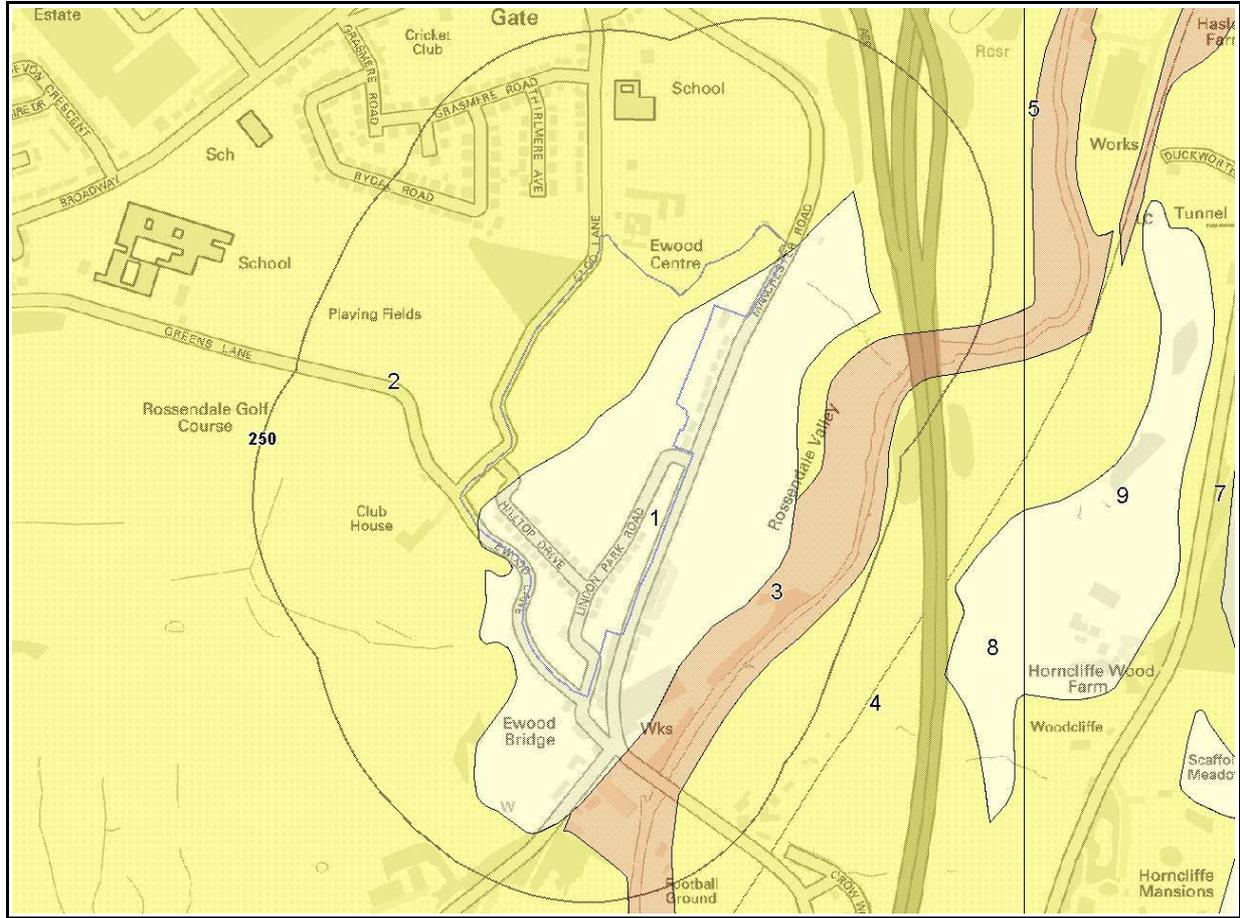
Collapsible Deposits Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



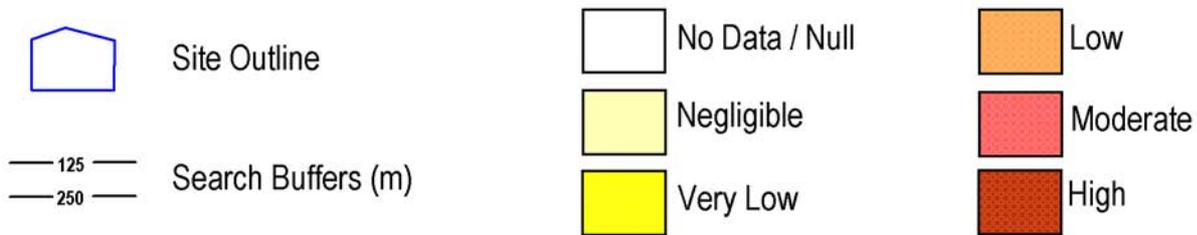
# 4.6 Running Sand Map



Running Sand Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



## 4. Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

**What is the maximum hazard rating of natural subsidence within the study site\* boundary? High**

### 4.1 Shrink – Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m) *	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	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.

### 4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Moderate	Significant potential for slope instability with relatively small changes in ground conditions. Avoid large amounts of water entering the ground through pipe leakage or soak-aways. Do not undercut or place large amounts of material on slopes without technical advice. For new build consider the potential and consequences of ground movement during excavations, or consequence of changes to loading or drainage. For existing property probable increase in insurance risk is likely due to potential natural slope instability after changes to ground conditions such as a very long, excessively wet winter.
2	0.0	On Site	High	Very significant potential for slope instability. Active or inactive landslides may be present; Seek expert advice about stability of the ground and the management of ground stability. For new build slope stability assessment necessary, special design may be necessary, construction may not be possible. For existing property significant increase in insurance risk in some cases. Site-specific consideration is necessary to separate cases where landslides are artificially or naturally stabilised from those that may be active or may fail.
3	0.0	On Site	Low	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.
4	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
5	49.0	SE	Low	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.

\*This includes an automatically generated 50m buffer zone around the study site boundary.

## 4.3 Ground Dissolution of Soluble Rocks

The following Soluble Rocks information provided by the British Geological Survey:

Distance (m)*	Direction	Hazard Rating	Details
0.0	On site	Null-Negligible	Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

## 4.4 Compressible Deposits

The following Compressible Ground information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

## 4.5 Collapsible Deposits

The following Collapsible Rocks information is provided by the British Geological Survey:

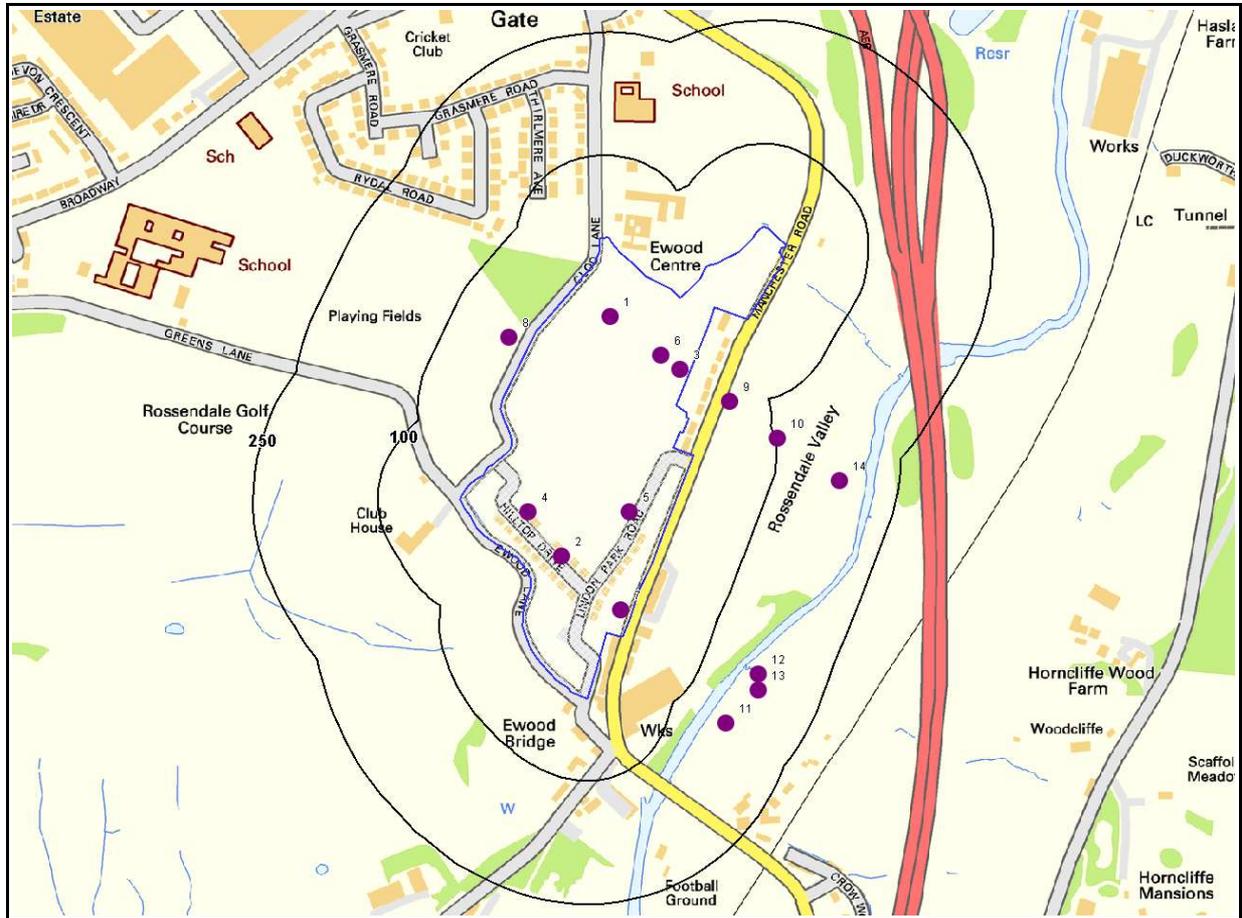
ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

## 4.6 Running Sands

The following Running Sands information is provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

# 5. Borehole Records Map



Borehole Records Legend



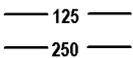
Crown Copyright. All Rights Reserved  
Licence Number: 100035207



Site Outline



Borehole Locations



Search Buffers (m)

## 5. Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

### Records of boreholes within 250m of the study site boundary:

14

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length (m)	Borehole Name
1	0.0	On Site	379501,42 1446	SD72SE10	-1.0	EWOOD BRIDGE 101
2	0.0	On Site	379443,42 1154	SD72SE17	-1.0	EWOOD BRIDGE 107
3	0.0	On Site	379585,42 1381	SD72SE12	-1.0	EWOOD BRIDGE 102
4	0.0	On Site	379402,42 1208	SD72SE16	-1.0	EWOOD BRIDGE 106
5	0.0	On Site	379524,42 1208	SD72SE334	8.0	LINDEN PARK ROAD 3
6	0.0	On Site	379562,42 1398	SD72SE11	-1.0	EWOOD BRIDGE 101A
7	0.0	On Site	379514,42 1088	SD72SE18	-1.0	EWOOD BRIDGE 108
8	25.0	NW	379380,42 1420	SD72SE326	30.0	HASLINGDEN BOREHOLE
9	53.0	E	379645,42 1342	SD72SE13	-1.0	EWOOD BRIDGE 103
10	103.0	E	379703,42 1297	SD72SE14	-1.0	EWOOD BRIDGE 104
11	162.0	SE	379640,42 0950	SD72SE323	-1.0	MAYFIELD CHICKS ROSSENDALE 1
12	169.0	E	379680,42 1010	SD72SE324	-1.0	MAYFIELD CHICKS ROSSENDALE 2
13	176.0	E	379680,42 0990	SD72SE260	58.0	MAYFIELD CHICKS LTD ABH
14	178.0	E	379777,42 1245	SD72SE15	-1.0	EWOOD BRIDGE 105

Additional online information is available for the following boreholes listed above:

#5: [http://scans.bgs.ac.uk/sobi\\_scans/boreholes/18201771](http://scans.bgs.ac.uk/sobi_scans/boreholes/18201771)

#8: [http://scans.bgs.ac.uk/sobi\\_scans/boreholes/17732390](http://scans.bgs.ac.uk/sobi_scans/boreholes/17732390)

#13: [http://scans.bgs.ac.uk/sobi\\_scans/boreholes/25309](http://scans.bgs.ac.uk/sobi_scans/boreholes/25309)

## 6. Estimated Background Soil Chemistry

**Records of background estimated soil chemistry within 250m of the study site boundary:**

**5**

For further information on how this data is calculated and limitations upon its use, please see the GroundSure GeoInsight User Guide, available on request.

Estimated Geometric Mean Soil Concentrations (mg/kg)							
Distance (m)*	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
24.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
35.0	E	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg

\*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

## 7. Contacts

### 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  
Web: www.bgs.ac.uk  
BGS Geological Hazards Reports and general geological  
enquiries

### British Gypsum

British Gypsum Ltd, East Leake, Loughborough, Leicestershire,  
LE12 6HX  
Tel: www.british-gypsum.com

### The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG  
Tel: 0845 762 6848  
DX 716176 Mansfield 5 www.coal.gov.uk

### Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane, Brierley Hill, West  
Midlands DY5 3LH  
Tel: +44 (0) 1384 262 000  
Email: enquiries.gs@jpb.co.uk  
Website: www.jpb.co.uk

### Ordnance Survey

Romsey Road, Southampton SO16 4GU  
Tel: 08456 050505

### Getmapping PLC

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

### Peter Brett Associates

Caversham Bridge House, Waterman Place, Reading  
Berkshire RG1 8DN  
Tel: +44 (0)118 950 0761 E-mail: reading@pba.co.uk

### Acknowledgements

PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028].

This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.



## Standard Terms and Conditions

### 1 Definitions

In these conditions unless the context otherwise requires:

"**Beneficiary**" means the Client or the customer of the Client for whom the Client has procured the Services.

"**Commercial**" means any building which is not Residential.

"**Commission**" means an order for Consultancy Services submitted by a Client.

"**Consultancy Services**" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"**Contract**" means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions, the relevant GroundSure User Guide, proposal by GroundSure and the content of any subsequent report, and any agreed amendments in accordance with clause 11.

"**Client**" means the party that submits an Order or Commission.

"**Data Provider**" means any third party providing Third Party Content to GroundSure.

"**Data Report**" means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.

"**GroundSure**" means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.

"**GroundSure Materials**" means all materials prepared by GroundSure as a result of the provision of the Services, including but not limited to Data Reports, Mapping and Risk Screening Reports.

"**Intellectual Property**" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trade mark or any other intellectual property rights.

"**Mapping**" an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure.

"**Order**" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site.

"**Order Website**" means online platform via which Orders may be placed.

"**Report**" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.

"**Residential**" means any building used as or suitable for use as an individual dwelling.

"**Risk Screening Report**" means one of GroundSure's risk screening reports, comprising factual data with interpretation in respect of the level of likely risk and/or liability, excluding "**Consultancy Services**".

"**Services**" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site.

"**Site**" means the landsite in respect of which GroundSure provides the Services.

"**Third Party Content**" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.

"**User Guide**" means the relevant current version of the user guide, available upon request from GroundSure.

### 2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.

2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.

2.3 The Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.

2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others.

2.5 If a Client/Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to procure such insurance, but makes no warranty that such insurance shall be available from insurers or offered on reasonable terms. GroundSure does not endorse or recommend any particular insurance product, policy or insurer. Any insurance purchased shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. The Client/Beneficiary should take independent advice to ensure that the insurance policy requested and/or offered is suitable for its requirements.

2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

### 3 The Client's obligations

3.1 The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that GroundSure may in its own right enforce such terms and conditions against the Beneficiary pursuant to the Contracts (Rights of Third parties) Act 1999. The Client shall be liable for all breaches of the Contract by the Beneficiary as if they were breaches by the Client. The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.

3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).

3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party who is considering acquiring the whole or part of the Site, or providing funding in relation to the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password.

### 4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to access the information contained in a Report, Mapping or in a report prepared by GroundSure in respect of or arising out of Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in clauses 4.2 and 4.3.

4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), (iv) the first purchaser or first tenant of the Site (v) the professional advisers and lenders of the first purchaser or tenant of the Site. Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in clauses 7 and 11.6 shall apply.

4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.

4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report, (except as permitted herein or by separate agreement with GroundSure) to: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.

4.6 Notwithstanding clause 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party.

### 5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services.

5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("**Payment Date**"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgment) at the rate of five per cent per annum above the Bank of England base rate from time to time.

5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute.

### 6 Intellectual Property and Confidentiality

6.1 Subject to the provisions of clause 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services and Content are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.

6.2 The Client shall acknowledge the ownership of the **Third Party Content** where such **Third Party Content** is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party.

6.3 Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client acknowledges that the proprietary rights subsisting in copyright, database rights and any other intellectual property rights in respect of any data and information contained in any Report are and shall remain (subject to clause 11.1) the property of GroundSure and/or any third party that has supplied data or information used to create a Report, and that these conditions do not purport to grant, assign or transfer any such rights in respect thereof to a Client and/or a Beneficiary.

6.5 The Client shall (and shall procure that any recipients of the Report as permitted under clause 4.2 shall):

- (i) not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;

- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
  - (iii) not create any product or report which is derived directly or indirectly from the data contained in the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
  - (iv) not combine the Services with or incorporate such Services into any other information data or service; and
  - (v) not reformat or otherwise change (whether by modification, addition or enhancement), data contained in the Services (save that those acting in a professional capacity to the Beneficiary shall not be in breach of this clause 6.5(v) where such reformatting is in the normal course of providing advice based upon the Services), in each case of parts (iii) to (v) inclusive, whether or not such product or report is produced for commercial profit or not.
- 6.6 The Client and/or Beneficiary shall and shall procure that any party to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.
- 6.8 Save as otherwise set out in these terms and conditions, any information provided by one party ("**Disclosing Party**") to the other party ("**Receiving Party**") shall be treated as confidential and only used for the purposes of these terms and conditions, except in so far as the Receiving Party is authorised by the Disclosing Party to provide such information in whole or in part to a third party.

## 7 Liability

### THE CLIENT'S ATTENTION IS DRAWN TO THIS PROVISION

- 7.1 Subject to the provisions of this clause 7, GroundSure shall be liable to the Beneficiary only in relation to any direct losses or damages caused by any negligent act or omission of GroundSure in preparing the GroundSure Materials and provided that the Beneficiary has used all reasonable endeavours to mitigate any such losses.
- 7.2 GroundSure shall not be liable for any other losses or damages incurred by the Beneficiary, including but not limited to:
- (i) loss of profit, revenue, business or goodwill, losses relating to business interruption, loss of anticipated savings, loss of or corruption to data or for any special, indirect or consequential loss or damage which arise out of or in connection with the GroundSure Materials or otherwise in relation to a Contract;
  - (ii) any losses or damages that arise as a result of the use of all or part of the GroundSure Materials in breach of these terms and conditions or contrary to the terms of the relevant User Guide;
  - (iii) any losses or damages that arise as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such part is based on any Third Party Content or any reasonable interpretation of Third Party Content. The Client accepts, and shall procure that any other Beneficiary shall accept, that it has no claim or recourse to any Data Provider in relation to Third Party Content; and/or
  - (iv) any loss or damage to a Client's computer, software, modem, telephone or other property caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.3 GroundSure's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution or otherwise, arising in connection with the GroundSure Materials or otherwise in relation to the Contract shall be limited to £10 million in total (i) for any one claim or (ii) for a series of connected claims brought by one or more parties.
- 7.4 For the duration of the liability periods set out in clauses 7.5 and 7.6 below, GroundSure shall maintain professional indemnity insurance in respect of its liability under these terms and conditions provided such insurance is readily available at commercially viable rates. GroundSure shall produce evidence of such insurance if reasonably requested by the Client. A level of cover greater than GroundSure's current level of cover may be available upon request and agreement with the Client.
- 7.5 Any claim under the Contract in relation to Data Reports, Mapping and Risk Screening Reports, must be brought within six years from the date when the Beneficiary became aware that it may have a claim and in no event may a claim be brought twelve years or more after completion of such a Contract. For the avoidance of doubt, any claim in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause 7.5 shall survive the expiry of those time periods provided the claim is actually commenced within six months of notification.
- 7.6 Any claim under the Contract in relation to Consultancy Services, must be brought within six years from the date the Consultancy Services were completed.
- 7.7 he Client accepts and shall procure that any other Beneficiary shall accept that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of any Data Provider and/or any Third Party Content provided by a Data Provider.
- 7.8 Nothing in these terms and conditions:
- (i) excludes or limits the liability of GroundSure for death or personal injury caused by GroundSure's negligence, or for fraudulent misrepresentation; or
  - (ii) shall affect the statutory rights of a consumer under the applicable legislation.

## 8 GroundSure right to suspend or terminate

- 8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:
- (i) the Client shall fail to pay any sum due to GroundSure within 28 days of the Payment Date; or
  - (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
  - (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
  - (iv) the Client or the Beneficiary breaches any material term of the Contract (including, but not limited to, the obligations in clause 4) incapable of remedy or if remediable, is not remedied within 14 days of notice of the breach.

## 9 Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.
- 9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

## 10 Consequences of Withdrawal, Termination or Suspension

- 10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/ Beneficiary in GroundSure's possession or control.
- 10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

## 11 General

- 11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.
- 11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.
- 11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.
- 11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey may enforce breach of clause 6.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information;
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
  - (vii) suspension or delay of services at public registries by Data Providers; or
  - (viii) changes in law.
- 11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.
- 11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.
- 11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.
- 11.12 If the Client or Beneficiary has a complaint about the Services, notice can be given in any format eg writing, phone, email to the Compliance Officer at GroundSure who will respond in a timely manner.

© GroundSure Limited January 2012

# GroundSure EnviroInsight

Address: LINDON PARK ROAD, GREENFIELD, ROSSENDALE, BB4 6LZ

Date: Mar 1, 2013

GroundSure Reference: CMAPS-CM-211792-7904-010313EDR

Your Reference: 7904

Client: CENTREMAPS



Brought to you by CENTREMAPS

# Aerial Photograph of Study Site



Aerial photography supplied by Getmapping PLC.  
© Copyright Getmapping PLC 2003. All Rights Reserved.

Site Name: LINDON PARK  
ROAD, GREENFIELD, ROSSENDALE, BB4 6LZ  
Grid Reference: 379517,421268  
Size of Site: 9.72 ha

# 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.

Report Section	Number of records found within (X) m of the study site boundary					
	on-site	0-50	51-250	251-500	501-1000	1000-1500
<b>1. Environmental Permits, Incidents and Registers</b>						
<b>1.1 Industrial Sites Holding Environmental Permits and/or Authorisations</b>						
Records of historic IPC Authorisations	0	0	0	0	-	-
Records of Part A(1) and IPPC Authorised Activities	0	0	0	0	-	-
Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0	-	-
Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0	-	-
Records of List 1 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of List 2 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of Part A(2) and Part B Activities and Enforcements	0	0	0	0	-	-
Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0	-	-
Records of Licensed Discharge Consents	0	0	1	12	-	-
Records of Planning Hazardous Substance Consents and Enforcements	0	0	0	0		
<b>1.2 Records of COMAH and NIHHS sites</b>	0	0	0	0	-	-
<b>1.3 Environment Agency Recorded Pollution Incidents</b>						
National Incidents Recording System, List 2	0	0	2	-	-	-
National Incidents Recording System, List 1	0	0	0	-	-	-
<b>1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990</b>	0	0	0	0	-	-
<b>2. Landfill and Other Waste Sites</b>						
<b>2.1 Landfill Sites</b>						
Environment Agency Registered Landfill Sites	0	0	0	0	1	-
Landfill Data – Operational Landfill Sites	0	0	0	0	1	-
Environment Agency Historic Landfill Sites	0	0	1	1	4	5
Landfill Data – Non-Operational Landfill Sites	0	0	0	0	7	-
BGS/DoE Landfill Site Survey	0	0	0	0	1	0
GroundSure Local Authority Landfill Sites Data	0	0	0	0	7	4
<b>2.2 Landfill and Other Waste Sites Findings</b>						
Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Environment Agency Licensed Waste Sites	0	0	0	0	3	0

3. Current Land Uses	on-site	0-50	51-250	251-500	501-1000	1000-1500
3.1 Current Industrial Sites Data	0	2	3	-	-	-
3.2 Records of Petrol and Fuel Sites	0	0	0	0	-	-
3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0	-	-

#### 4. Geology Description

- 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.

Source: Scale: 1:50,000 BGS Sheet 076

\* This includes an automatically generated 50m buffer zone around the site.

#### 5. Hydrogeology and Hydrology on-site 0-50 51-250 251-500 501-1000 1001-2000

- 5.1 Are there any records of Productive Strata in the Superficial Geology within 500m of the study site? Yes
- 5.2 Are there any records of Productive Strata in the Bedrock Geology within 500m of the study site? Yes
- 5.3 Groundwater Abstraction Licences (within 2000m of the study site). 0 0 2 6 0 14
- 5.4 Surface Water Abstraction Licences (within 2000m of the study site). 0 0 0 0 6 13
- 5.5 Potable Water Abstraction Licences (within 2000m of the study site). 0 0 0 0 0 2
- 5.6 Are there any Source Protection Zones within 500m of the study site? No
- | 5.7 River Quality  | on-site | 0-50 | 51-250 | 251-500 | 501-1000 | 1001-1500 |
|--|---------|------|--------|---------|----------|-----------|
| Is there any Environment Agency information on river quality within 1500m of the study site? | No      | No   | No     | No      | Yes      | No        |
- 5.8 Detailed River Network entries within 500m of the site 0 1 8 4 - -
- 5.9 Surface water features within 250m of the study site Yes Yes Yes - - -

#### 6. Flooding

- 6.1 Are there any Environment Agency indicative Zone 2 floodplains within 250m of the study site? Yes
- 6.2 Are there any Environment Agency indicative 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? Yes
- 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? Very High
- 6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas? High

#### 7. Designated Environmentally Sensitive Sites on-site 0-50 51-250 251-500 501-1000 1001-2000

- 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

7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
7.3 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
7.4 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
7.5 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
7.6 Records of Ramsar sites	0	0	0	0	0	0
7.7 Records of World Heritage Sites	0	0	0	0	0	0
7.8 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
7.9 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
7.10 Records of National Parks	0	0	0	0	0	0
7.11 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
7.12 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0
7.13 Records of Ancient Woodlands	0	0	0	0	0	2

## 8. Natural Hazards

8.1 What is the maximum risk of natural ground subsidence? Very Low

## 9. Mining

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

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. These searches are conducted using radii of up to 500m.

## 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.

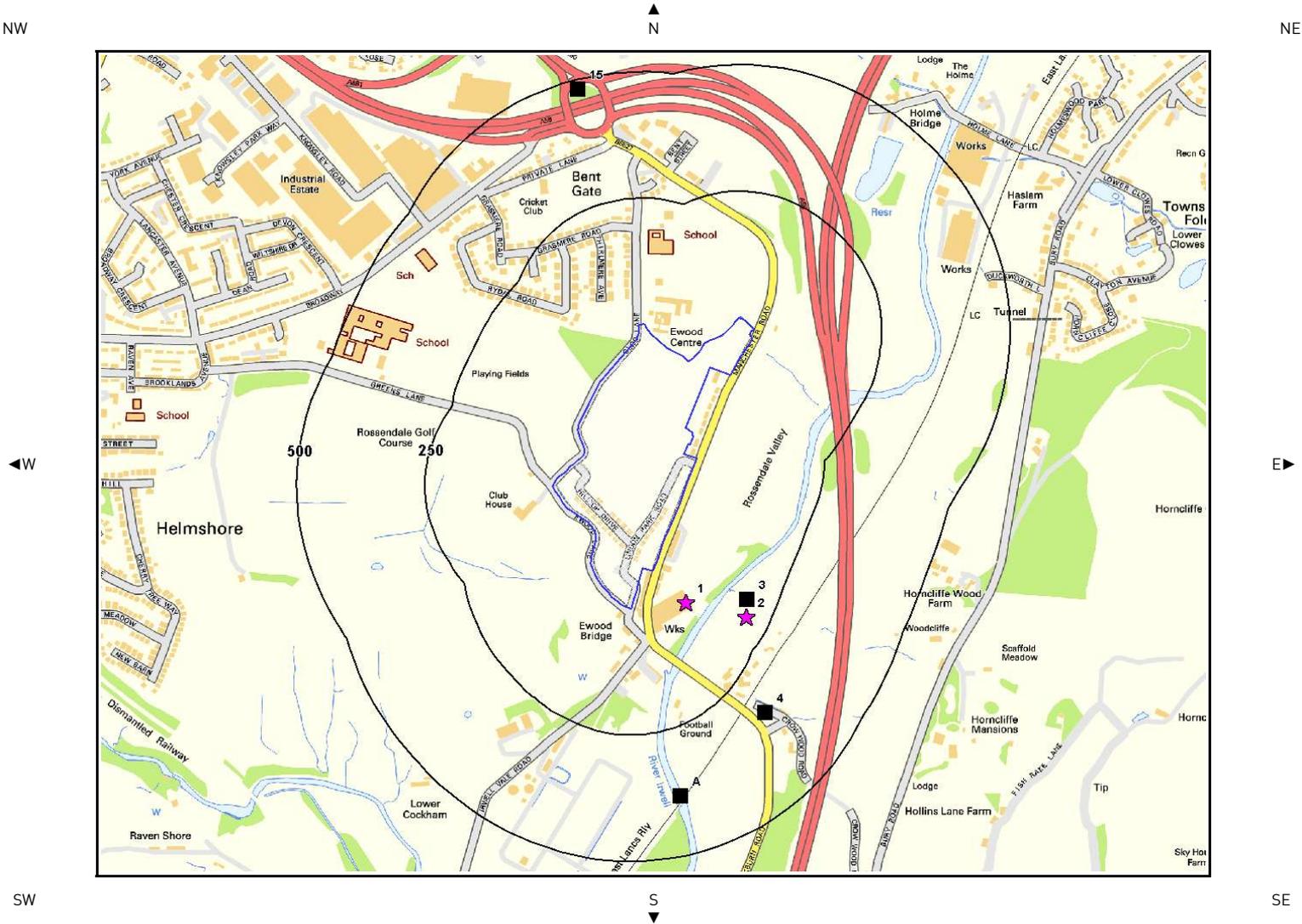
### Note: Maps

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



Authorisations, Incidents and Registers Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207

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

**Records of historic IPC Authorisations within 500m of the study site: 0**

Database searched and no data found.

---

**Records of Part A(1) and IPPC Authorised Activities within 500m of the study site: 0**

Database searched and no data found.

---

**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.

---

**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.

---

**Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site: 0**

Database searched and no data found.

---

**Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site: 0**

Database searched and no data found.

---

**Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site: 0**

Database searched and no data found.

---

**Records of Category 3 or 4 Radioactive Substance Licences within 500m of the study site: 0**

Database searched and no data found.

---

**Records of Licensed Discharge Consents within 500m of the study site: 13**

The following Licensed Discharge Consents records are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details	
3	191.0	E	379700, 421000	Address: Ewood Bridge, Rawtenstall, Lancashire Effluent Type: Miscellaneous Discharges - Surface Water Permit Number: 016991202 Permit Version: 1	Receiving Water: River Irwell Status: Lapsed Under Schedule 23 Environment Act 1995 Issue date: - Effective Date: 1/10/1994 Revocation Date: 2/12/1994
4	331.0	SE	379734, 420775	Address: Fair View, Ashen Bottom, Rossendale, Lancashire, BB4 6JY Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: 01M/463 Permit Version: 1	Receiving Water: Unknown Status: Pre Nra Legislation Where Issue Date < 01-sep-89 (historic Only) Issue date: 21/2/1961 Effective Date: 21/2/1961 Revocation Date: -
5A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 5	Receiving Water: River Irwell Status: Post Nra Legislation Where Issue Date > 31-aug-89 (historic Only) Issue date: - Effective Date: 1/10/1992 Revocation Date: -
6A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 7	Receiving Water: River Irwell Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: 31/3/2005 Effective Date: 1/1/2009 Revocation Date: 28/4/2009
7A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 2	Receiving Water: River Irwell Status: Revoked - Unspecified Issue date: - Effective Date: 31/1/1985 Revocation Date: -
8A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 1	Receiving Water: River Irwell Status: Revoked - Unspecified Issue date: - Effective Date: 12/1/1980 Revocation Date: 30/1/1985
9A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 3	Receiving Water: River Irwell Status: Revoked - Unspecified Issue date: - Effective Date: - Revocation Date: 17/9/1990
10A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 4	Receiving Water: River Irwell Status: Revoked - Unspecified Issue date: - Effective Date: 18/9/1990 Revocation Date: 30/9/1992
11A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 8	Receiving Water: River Irwell Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: - Effective Date: 1/1/2010 Revocation Date: 5/1/2012
12A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 6	Receiving Water: River Irwell Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: - Effective Date: - Revocation Date: -
13A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 9	Receiving Water: River Irwell Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: 28/4/2009 Effective Date: 28/4/2009 Revocation Date: -
14A	382.0	S	379570, 420610	Address: Rossendale Stw, Ewood Bridge, Rossendale, Lancashire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: 016950042 Permit Version: 10	Receiving Water: River Irwell Status: Varied Under Epr 2010 Issue date: 6/1/2012 Effective Date: 6/1/2012 Revocation Date: -

15	483.0	N	379370, 422010	Address: Manchester Rd/bent Gate Cso, Haslingden, Lancashire Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company Permit Number: 01ROS0038 Permit Version: 2	Receiving Water: Langwood Brook Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: - Effective Date: - Revocation Date: -
----	-------	---	-------------------	--	---

**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

**Records of National Incidents Recording System, List 2 within 250m of the study site: 2**

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

ID	Distance	Direction	NGR	Details
1	89.0	SE	379580, 420993	Incident Date: 8/3/2007 1 Incident Identification: 475465 Pollutant: Inert Materials and Wastes Pollutant Description: Rocks and Gravel Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
2	203.0	SE	379698, 420963	Incident Date: 16/7/2002 Incident Identification: 92114 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)

**Records of National Incidents Recording System, List 1 within 250m of the study site: 0**

Database searched and no data found.

## 1.4 Sites Determined as Contaminated Land under Part IIA 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

NW

N

NE

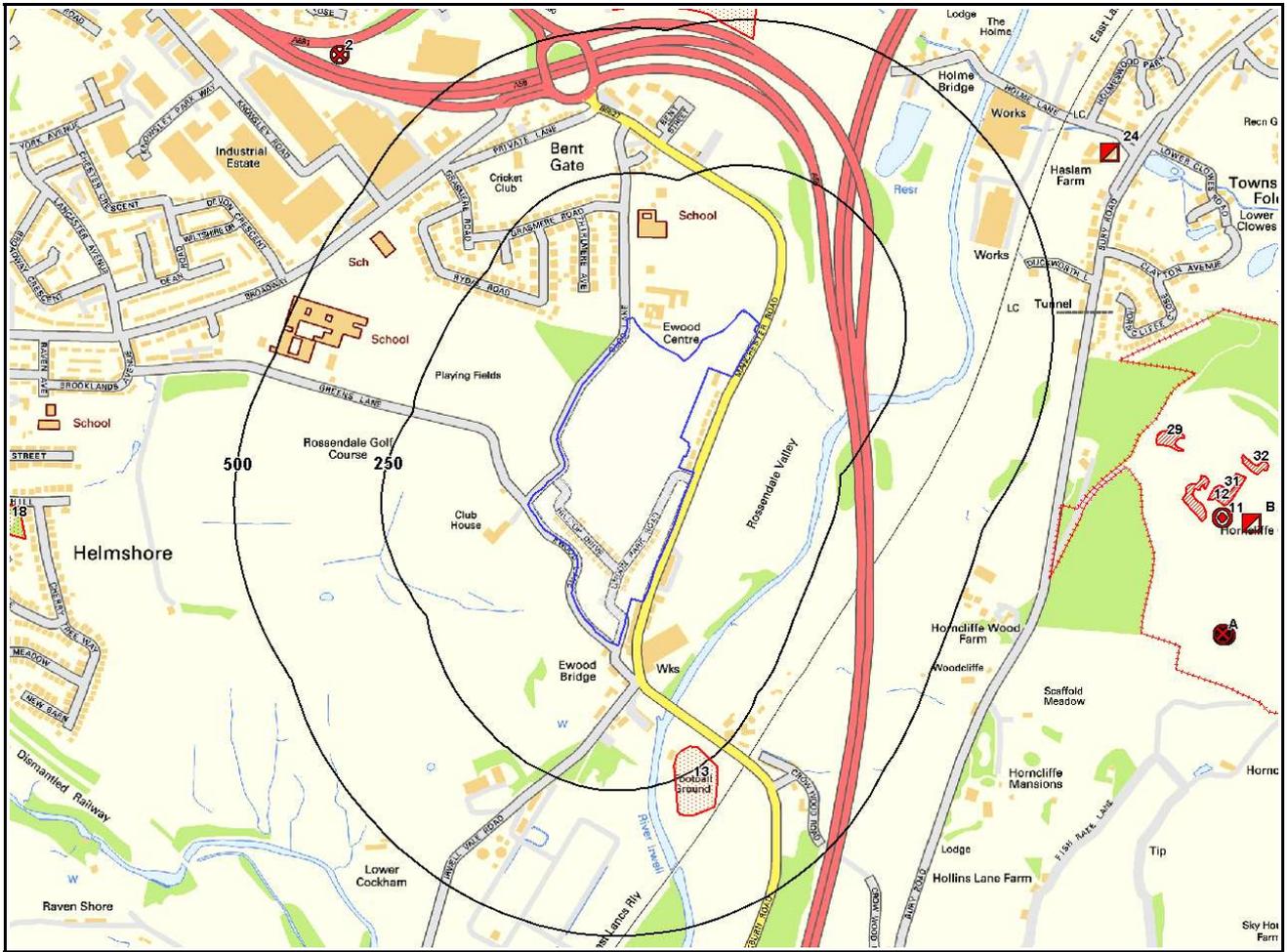
W

E

SW

S

SE



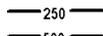
### Landfill & Other Waste Sites Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207



Site Outline



250  
500  
Search Buffers (m)



E.A. Active Landfill



E.A. Historic Landfill (Area Data)



E.A. Historic Landfill (Point Data)



BGS / DoE Survey Landfill



Local Authority Landfill (Area Data)



Local Authority Landfill (Point Data)



Operational Waste Treatment Licence



Closed Waste Treatment Licence



REGIS Waste Licence



Operational Landfill



Closed Landfill

## 2. Landfill and Other Waste Sites

### 2.1 Landfill Sites

#### Records from Environment Agency landfill data within 1000m of the study site: 1

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

ID	Distance	Direction	NGR	Details
12	593.0	SE	380550, 421191	<p>Address: Land/premises At, Bury Road, Rawtenstall, Rossendale, Lancashire, BB4 6JS</p> <p>Landfill Reference: 53995.0 Regis Reference: PPL003 Landfill Type: A4 : Household, Commercial &amp; Industrial Waste Landfill</p> <p>Operator: P Casey Enviro Ltd Status: Modified IPPC Reference: EPR Reference:</p>

#### Records of operational landfill sites sourced from Landmark within 1000m of the study site: 1

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

ID	Distance	Direction	NGR	Details
Not shown	943.0	E	380600, 421200	<p>Site Address: Horncliffe Quarry, Bury Road, Rawtenstall, ROSSENDALE, Lancashire,</p> <p>Agency Reference: - Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste</p> <p>Record Date: 01-Nov-2000 Transfer Date: Modification Date: Status: Operational as far as is known Category: LANDFILL Regulator: EA - North West Region - South Area (East - Sale) Size: Very Large (&gt;250,000 tonnes/year)</p>

#### Records of Environment Agency historic landfill sites within 1500m of the study site: 11

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

ID	Distance	Direction	NGR	Details
13	211.0	SE	379600, 420700	<p>Site Address: Haslingden Football Club, Off Blackburn Road, Ewood Bridge, Haslingden, Lancashire</p> <p>Waste Licence: - Site Reference: R018, K1/14/18 Waste Type: - Regis Reference: -</p> <p>Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -</p>
14	466.0	N	379600, 422100	<p>Site Address: Bent Gate, Off Haslingden Road, Syke Side, Haslingden, Lancashire</p> <p>Waste Licence: Yes Site Reference: R055, K1/14/55, Licence No 136 Waste Type: Inert Regis Reference: -</p> <p>Licence Issue: 14-May-1980 Licence Surrendered: 20-May-1993 Licence Hold Address: - Operator: -</p>
Not shown	638.0	S	379600, 420200	<p>Site Address: Land off Blackburn Road, Off Blackburn Road, Haslingden, Lancashire</p> <p>Waste Licence: - Site Reference: R067, K1/14/67 Waste Type: - Regis Reference: -</p> <p>Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -</p>
Not shown	697.0	N	379400, 422200	<p>Site Address: Pike Law Quarry, Hilt Rise, Syke Side, Haslingden, Lancashire</p> <p>Waste Licence: - Site Reference: R012, K1/14/12 Waste Type: - Regis Reference: -</p> <p>Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -</p>

Not shown	833.0	SW	379000, 420100	Site Address: Irwell Vale, Off Aitken Street, Irwell Vale, Haslingden, Lancashire Waste Licence: - Site Reference: R013, K1/14/13 Waste Type: - Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
18	856.0	W	378300, 421100	Site Address: Land off Curven Edge, Helmshore, Haslingden, Lancashire Waste Licence: Yes Site Reference: K1/14/53, Licence No 120,R053 Waste Type: Inert Regis Reference: -	Licence Issue: 29-Oct-1979 Licence Surrendered: 22-Oct-1980 Licence Hold Address: - Operator: -
Not shown	1025.0	W	378200, 421100	Site Address: Bridge End Mill, Off Helmshore Lane, Bridge End, Haslingden, Lancashire Waste Licence: - Site Reference: K1/14/14, R014 Waste Type: Inert Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	1199.0	W	378200, 420500	Site Address: Helmshore Road Landfill, Helmshore Road, Helmshore, Haslingden, Lancashire Waste Licence: - Site Reference: K1/14/66, R066 Waste Type: - Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	1245.0	NW	378800, 422600	Site Address: Lane Side Playing Fields, Off St Peters Avenue, Lane Side, Haslingden, Lancashire Waste Licence: - Site Reference: R064, K1/14/64 Waste Type: Household Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -
Not shown	1358.0	NW	378400, 422400	Site Address: High Gate Tip, Victoria Drive, Spring Vale, Haslingden, Lancashire Waste Licence: Yes Site Reference: K1/14056, Licence No 125,R056 Waste Type: Inert Regis Reference: -	Licence Issue: 22-Jan-1980 Licence Surrendered: 10-Nov-1989 Licence Hold Address: - Operator: -
Not shown	1429.0	N	379800, 422900	Site Address: Gaps Farm, Off Haslingden Old Road, Haslingden, Lancashire Waste Licence: - Site Reference: R019, K1/14/019 Waste Type: Inert Regis Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -

**Records of non-operational landfill sites sourced from Landmark within 1000m of the study site: 7**

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

ID	Distance	Direction	NGR	Details
2	667.0	NW	379000, 421995	Site Address: Bentgate, Haslingden, ROSSENDALE, Lancashire Landfill Licence: 250AHYAL Agency Reference: Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste Record Date: 01-May-1980 Transfer Date: Modification Date: Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined
Not shown	931.0	W	378400, 421095	Site Address: Curven Edge, Helmshore, Haslingden, ROSSENDALE, Lancashire Landfill Licence: 250APGAL Agency Reference: Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: No known restriction on source of waste Record Date: 01-Oct-1979 Transfer Date: Modification Date: Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined

4A	940.0	E	380500, 421000	Site Address: Hornccliffe Quarry, Bury Road, Rawtenstall, ROSSENDALE, Lancashire, Landfill Licence: 250ABLAL Agency Reference: Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Sep-1977 Transfer Date: Modification Date: Status: Record superseded Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined
5A	941.0	E	380500, 420995	Site Address: Hornccliffe Quarry, Bury Road, Rawtenstall, ROSSENDALE, Lancashire, Landfill Licence: 250ADLAL Agency Reference: Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Aug-1978 Transfer Date: 01-Jan-1986 Modification Date: Status: Record superseded Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined
Not shown	943.0	E	380600, 421200	Site Address: Hornccliffe Quarry, Bury Road, Rawtenstall, ROSSENDALE, Lancashire, Landfill Licence: 25KBBCAL Agency Reference: L1/14/124 PSA Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Aug-1995 Transfer Date: Modification Date: 01-Mar-1997 Status: Record superseded Category: LANDFILL Regulator: EA - North West Region - South Area (East - Sale) Size: Very Large (>250,000 tonnes/year)
Not shown	943.0	E	380600, 421200	Site Address: Hornccliffe Quarry, Bury Road, Rawtenstall, ROSSENDALE, Lancashire, Landfill Licence: 25KBAAAL Agency Reference: L1/14/124 PSA Waste Type: Putrescible Waste Description: Putrescible Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Jun-1990 Transfer Date: Modification Date: 01-Mar-1995 Status: Record superseded Category: LANDFILL Regulator: EA - North West Region - South Area (East - Sale) Size: Undefined
8A	946.0	E	380505, 420995	Site Address: Hornccliffe Quarry, Bury Road, Rawtenstall, ROSSENDALE, Lancashire, Landfill Licence: 250ANHAL Agency Reference: Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Nov-1986 Transfer Date: 01-Jan-1987 Modification Date: Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined

### 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	Direction	NGR	Details
11	850.0	E	380500, 421200	Address: Hornccliffe Quarries, Bury Road, Rawtenstall, Lancs BGS Number: 1311.0 Risk: No risk to aquifer Waste Type: N/A

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

11

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

ID	Distance	Direction	Site Address	Source	Data Type
Not shown	634.0	S	Refuse Tip	1970 mapping	Polygon
Not shown	687.0	S	Refuse Tip	1961 mapping	Polygon
29	701.0	E	Refuse Tip	1961 mapping	Polygon
30	775.0	E	Refuse Tips	1961 mapping	Polygon
31	816.0	E	Refuse Tips	1961 mapping	Polygon
32	848.0	E	Refuse Tip	1961 mapping	Polygon
Not shown	909.0	E	Refuse Tip	1961 mapping	Polygon
Not shown	1076.0	SE	Refuse Tip	1961 mapping	Polygon
Not shown	1238.0	W	Refuse Tip	1961 mapping	Polygon
Not shown	1238.0	W	Refuse Tip	1970 mapping	Polygon

Not shown	1242.0	S	Refuse Tip	1962 mapping	Polygon
-----------	--------	---	------------	--------------	---------

## 2.2 Other Waste Sites

**Records of operational waste treatment, transfer or disposal sites within 500m of the study site: 0**

Database searched and no data found.

**Records of non-operational waste treatment, transfer or disposal sites within 500m of the study site: 0**

Database searched and no data found.

**Records of Environment Agency licensed waste sites within 1500m of the study site: 3**

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

ID	Distance	Direction	NGR	Details
24	665.0	NE	380309, 421829	<p>Site Address: Holme Lane, Bury Road, Rawtenstall, Rossendale, Lancashire, BB4 6JB</p> <p>Type: ELV Facility</p> <p>Size: &lt; 25000 tonnes</p> <p>Regis Licence Number: STA008</p> <p>EPR reference: EA/EPR/UP3894CC/S002</p> <p>Operator: Stansfield Colin</p> <p>Waste Management licence No: 50276</p> <p>Annual Tonnage: 2499.0</p> <p>Issue Date: 28/06/2004</p> <p>Effective Date: -</p> <p>Modified: -</p> <p>Surrendered Date: 24/10/2006</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Surrendered</p> <p>Site Name: Brookside Garage</p> <p>Correspondence Address: -, -</p>
25B	900.0	E	380550, 421191	<p>Site Address: Bury Road, Rawtenstall, Rossendale, Lancashire, BB4 6JS</p> <p>Type: Household, Commercial &amp; Industrial Waste Landfill</p> <p>Size: &gt;= 75000 tonnes</p> <p>Regis Licence Number: PPL003</p> <p>EPR reference: -</p> <p>Operator: P Casey Enviro Ltd</p> <p>Waste Management licence No: 53995</p> <p>Annual Tonnage: 50000.0</p> <p>Issue Date: 21/06/1990</p> <p>Effective Date: -</p> <p>Modified: 22/11/2000</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Modified</p> <p>Site Name: Horncliffe Quarry Landfill</p> <p>Correspondence Address: -, Rydings Road, Rochdale, Lancashire, OL12 9PS</p>
26B	900.0	E	380550, 421191	<p>Site Address: Land/premises At, Bury Road, Rawtenstall, Rossendale, Lancashire, BB4 6JS</p> <p>Type: Household, Commercial &amp; Industrial Waste Landfill</p> <p>Size: &lt; 25000 tonnes</p> <p>Regis Licence Number: PPL003</p> <p>EPR reference: EA/EPR/KP3391CH/V002</p> <p>Operator: P Casey Enviro Ltd</p> <p>Waste Management licence No: 53995</p> <p>Annual Tonnage: 3000.0</p> <p>Issue Date: 21/06/1990</p> <p>Effective Date: -</p> <p>Modified: 22/12/2009</p> <p>Surrendered Date: -</p> <p>Expiry Date: -</p> <p>Cancelled Date: -</p> <p>Status: Modified</p> <p>Site Name: Horncliffe Quarry Landfill</p> <p>Correspondence Address: -, -</p>

# 3. Current Land Use Map

NW



NE

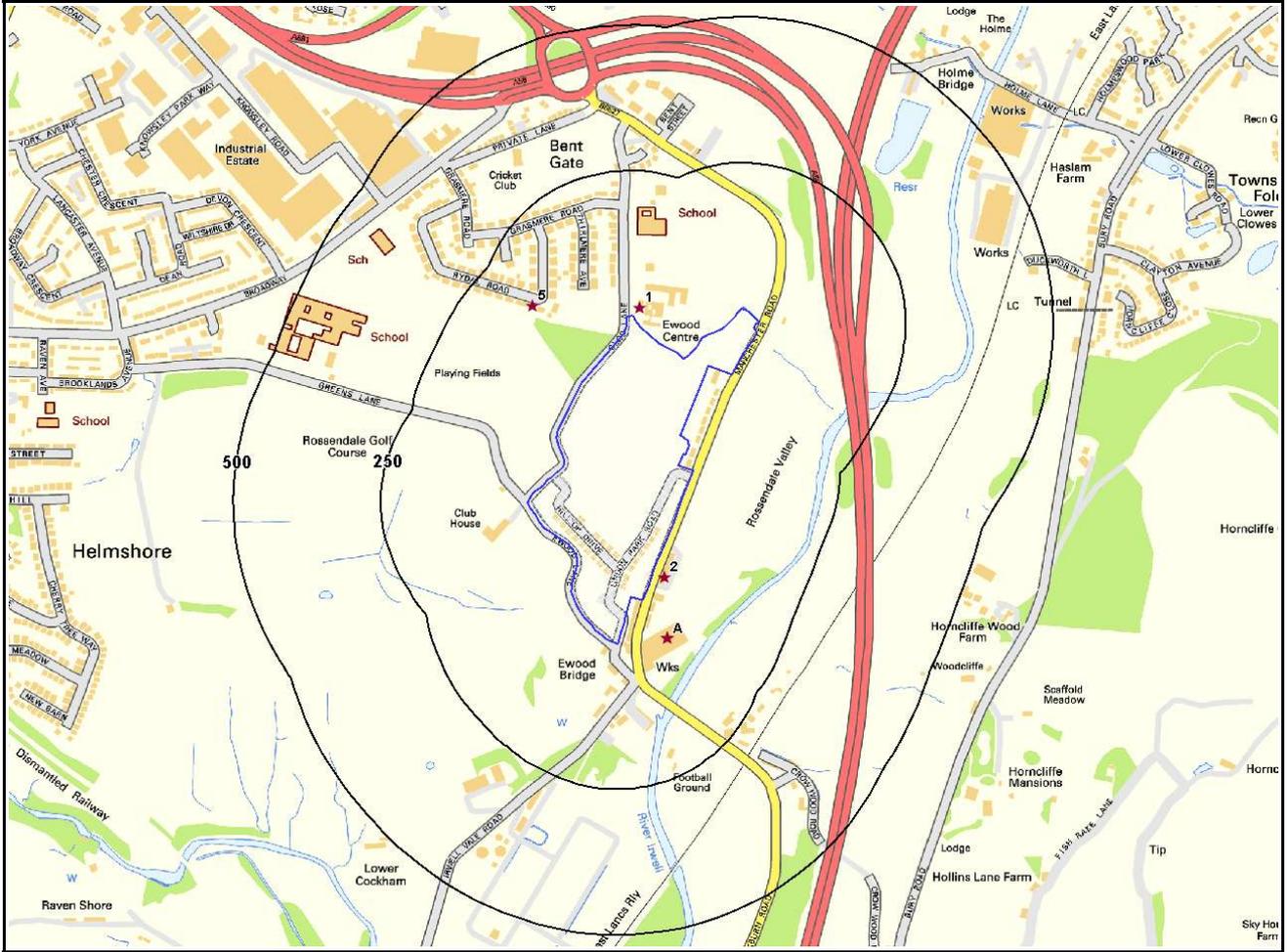
W

E

SW



SE



Current Land Use Legend



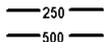
Crown Copyright. All Rights Reserved  
Licence Number: 100035207



Site Outline



Current Industrial Sites



Search Buffers (m)



Petrol & Fuel Sites



Underground High Pressure Oil & Fuel Pipelines

## 3. Current Land Uses

### 3.1 Current Industrial Data

**Records of potentially contaminative industrial sites within 250m of the study site: 5**

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

ID	Distance	Direction	Company	Address	Activity	Category
1	18.0	NE	Electricity Sub Station	BB4	Electrical Features	Infrastructure and Facilities
2	21.0	E	D H Tanks & Drains	816, Manchester Road, Haslingden, Rossendale, BB4 6LB	Waste Storage, Processing and Disposal	Infrastructure and Facilities
3A	77.0	E	Air Conditioning Design Ltd	Unit 6 Ewood Bridge Mill, Manchester Road, Haslingden, Rossendale, BB4 6LB	Civil Engineers	Engineering Services
4A	77.0	E	Harbenware Ltd	Unit 5 Ewood Bridge Mill, Manchester Road, Haslingden, Rossendale, BB4 6LB	Food and Beverage Industry Machinery	Industrial Products
5	150.0	NW	A & Ae Crompton Ltd	76, Rydal Road, Haslingden, Rossendale, BB4 4EF	Dairy Farming	Farming

### 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: 0**

Database searched and no data found.

## 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
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

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

### 4.3 Bedrock and Solid Geology

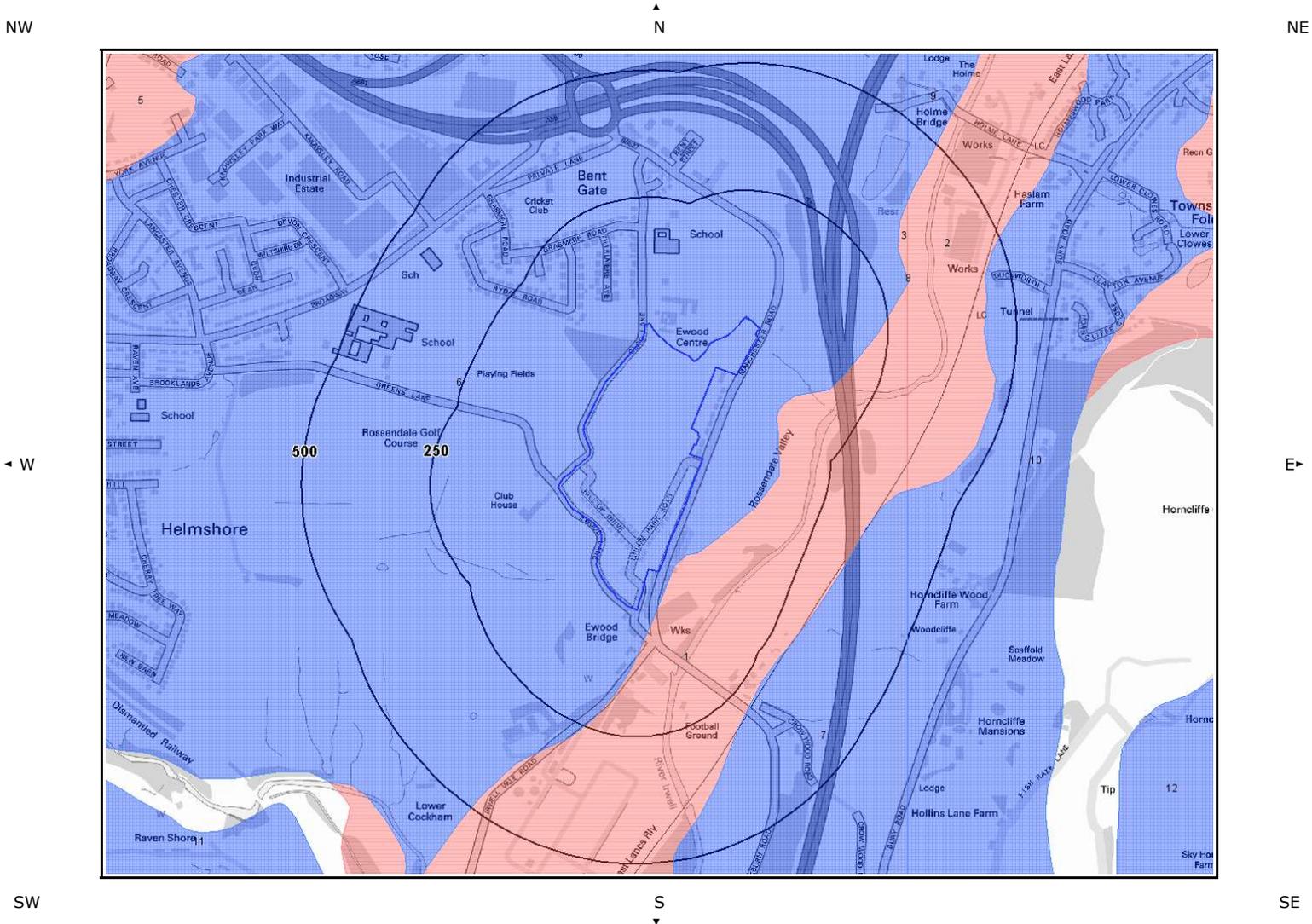
The database has been searched on site, including a 50m buffer.

LEX Code	Description	Rock Type
MARSD-MDSI	MARSDEN FORMATION	MUDSTONE AND SILTSTONE
BBS-SDST	BROOKSBOTTOMS GRIT	SANDSTONE

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

For more detailed geological and ground stability data please refer to the "GroundSure GeoInsight". Available from our website.

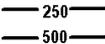
# 5a. Hydrogeology - Aquifer Within Superficial Geology



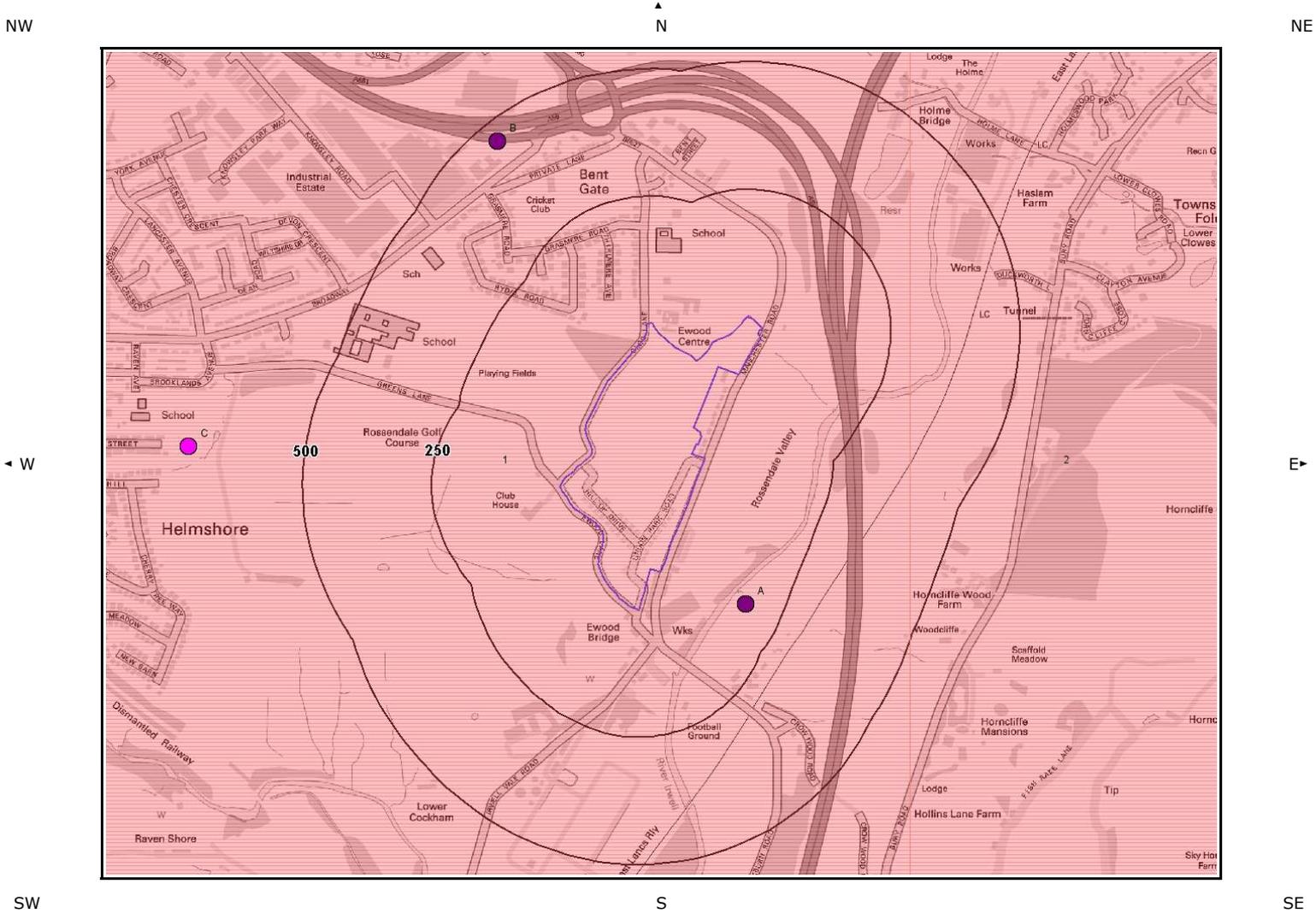
Aquifer Within Superficial Geology Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207

	Site Outline		Principal Aquifer		Secondary Aquifer - Undifferentiated Layers
	Search Buffers (m)		Secondary (A) Aquifer - Permeable Layers		Unproductive
			Secondary (B) Aquifer - Lower Permeability Layers		Unknown (lakes and landslip)

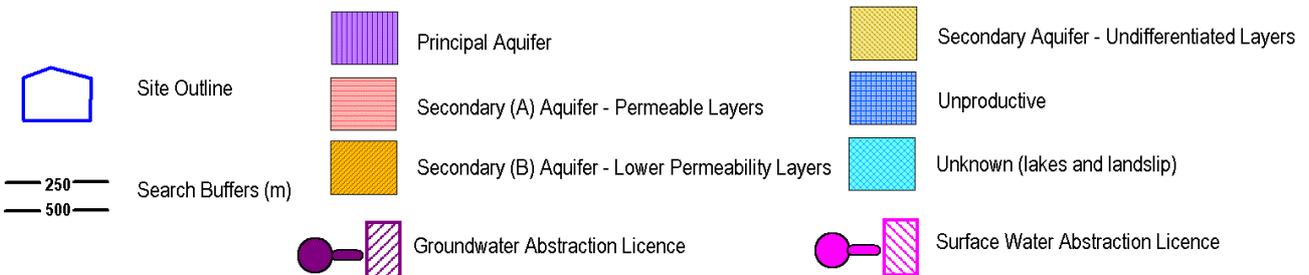
# 5b. Hydrogeology - Aquifer Within Bedrock Geology and Abstraction Licenses



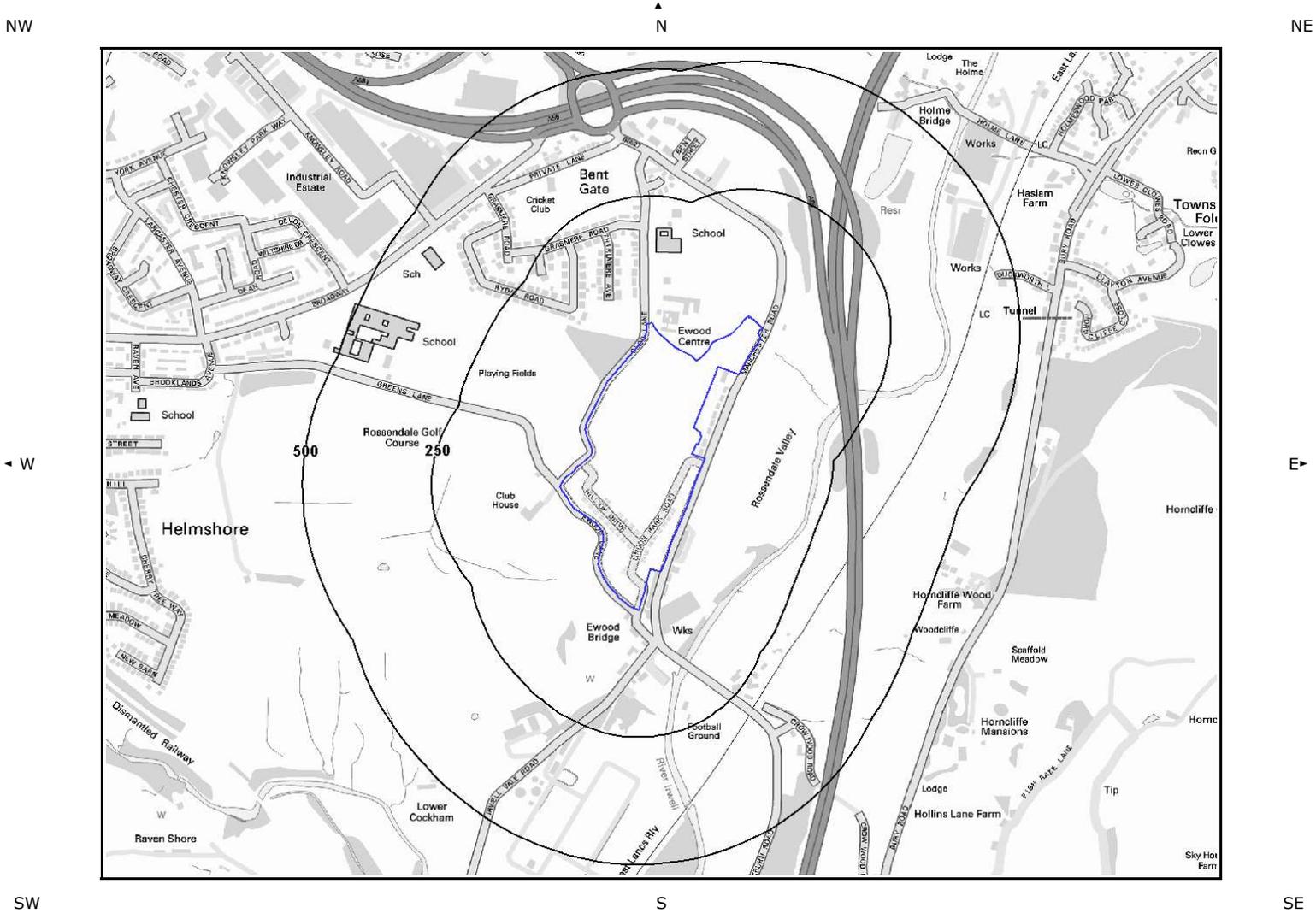
Aquifer Within Bedrock Geology Legend

Enabled by Ordnance Survey

Crown Copyright. All Rights Reserved  
Licence Number: 100035207



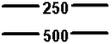
# 5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



SPZ and Potable Water Abstraction Licenses Legend



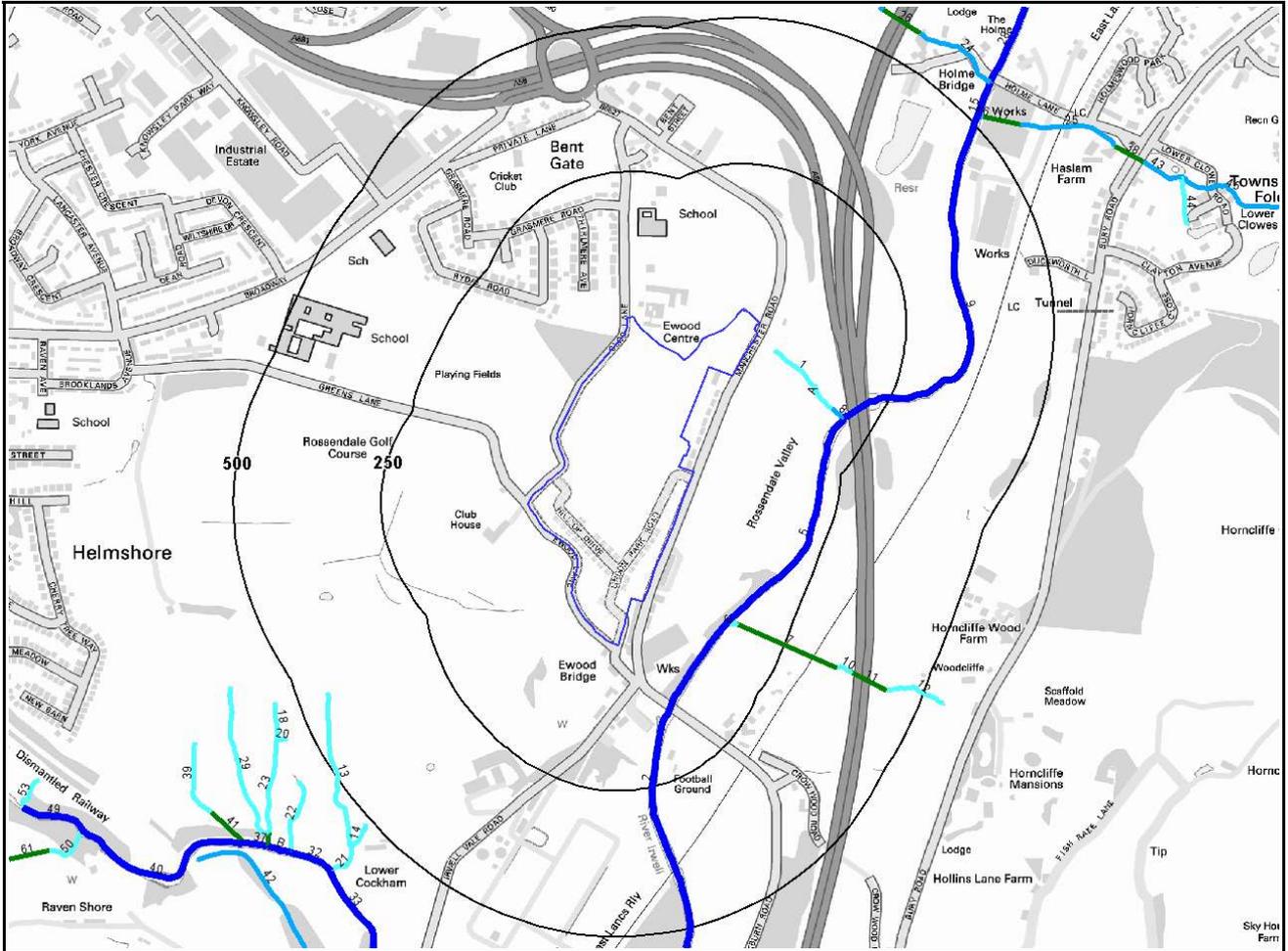
Crown Copyright. All Rights Reserved  
Licence Number: 100035207

-  Site Outline
-  Source Protection Zone 1 - Inner Catchment
-  Source Protection Zone 2 - Outer Catchment
-  Source Protection Zone 3 - Total Catchment
-  Source Protection Zone 4 - Zone of Special Interest
-  Search Buffers (m)
-  Potable Water Abstraction Licence

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

NW  
← W

NE



E→

SW

S  
▼

SE

### Hydrology Legend

- Site Outline
- Primary River
- Secondary River
- Tertiary River
- Lake/Reservoir
- Underground River (inferred)
- General Quality Assessment: Chemistry
- Canal
- Canal Tunnel
- Extended Culvert (greater than 50m)
- D/S of High Water Mark
- D/S seaward extension
- General Quality Assessment: Biology



Crown Copyright. All Rights Reserved  
Licence Number: 100035207

## 5. Hydrogeology and Hydrology

### 5.1 Aquifer within Superficial Deposits

**Are there records of productive strata 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
6	0.0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
1	24.0	E	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	281.0	SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	287.0	E	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
8	301.0	E	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
3	304.0	E	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
9	382.0	NE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
10	403.0	SE	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 productive strata 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
2	287.0	E	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	Direction	NGR	Details	
4A	176.0	E	379680, 420990	Licence No: 2569001256 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "a Borehole At Mayfield Chicks Ltd, Ewood Bridge, Rossendale" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: S 7390 Original Start Date: - Expiry Date: 04/10/2010 Issue No: 1 Version Start Date: 5/10/2000 Version End Date:
5A	176.0	E	379680, 420990	Licence No: 2569001256 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: A Borehole At Mayfield Chicks Ltd, Ewood Bridge, Rossendale Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: S 7390 Original Start Date: - Expiry Date: 04/10/2010 Issue No: 1 Version Start Date: 5/10/2000 Version End Date:
6B	460.0	NW	379200, 421900	Licence No: 2569001184 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole At Broadway, Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): 136000 Max Daily Volume (m <sup>3</sup> ): 1650 Original Application No: 2311 Original Start Date: 28/8/1970 Expiry Date: - Issue No: 101 Version Start Date: 2/6/2003 Version End Date:
7B	460.0	NW	379200, 421900	Licence No: 2569001184 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "borehole At Broadway, Haslingden" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 2311 Original Start Date: 28/8/1970 Expiry Date: - Issue No: 100 Version Start Date: 2/11/1992 Version End Date:
8B	460.0	NW	379200, 421900	Licence No: 2569001184 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "borehole At Broadway, Haslingden" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 2311 Original Start Date: 28/8/1970 Expiry Date: - Issue No: 100 Version Start Date: 2/11/1992 Version End Date:
9B	460.0	NW	379200, 421900	Licence No: 2569001184 Details: Process water Direct Source: Ground Water - North West Region Point: "borehole At Broadway, Haslingden" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 2311 Original Start Date: 28/8/1970 Expiry Date: - Issue No: 100 Version Start Date: 2/11/1992 Version End Date:
10B	460.0	NW	379200, 421900	Licence No: 2569001184 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: Borehole At Broadway, Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): 136000 Max Daily Volume (m <sup>3</sup> ): 1650 Original Application No: 2311 Original Start Date: 28/8/1970 Expiry Date: - Issue No: 101 Version Start Date: 2/6/2003 Version End Date:
11B	460.0	NW	379200, 421900	Licence No: 2569001184 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: Borehole At Broadway, Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): 136000 Max Daily Volume (m <sup>3</sup> ): 1650 Original Application No: 2311 Original Start Date: 28/8/1970 Expiry Date: - Issue No: 101 Version Start Date: 2/6/2003 Version End Date:

Not shown	1211.0	SE	Licence No: 2569001132 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "collecting Tank At Elton Banks Farm, edenfield, Ramsbottom" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 691 Original Start Date: 31/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/1/1966 Version End Date:
Not shown	1211.0	SE	Licence No: 2569001132 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: Collecting Tank At Elton Banks Farm, edenfield, Ramsbottom Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 0691 Original Start Date: 31/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 31/1/1966 Version End Date:
Not shown	1230.0	E	Licence No: 2569001081 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "spring Fed Tank At Old Hall Farm, Balladen" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1722 Original Start Date: 12/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/1/1966 Version End Date:
Not shown	1230.0	E	Licence No: 2569001081 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: Spring Fed Tank At Old Hall Farm, Balladen Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1722 Original Start Date: 12/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 12/1/1966 Version End Date:
Not shown	1250.0	NW	Licence No: 2569001135 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "well At Causeway Head Farm, Haslingden, Rossendale, " Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1860 Original Start Date: 15/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/2/1966 Version End Date:
Not shown	1250.0	NW	Licence No: 2569001135 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: Well At Causeway Head Farm, Haslingden, Rossendale, Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1860 Original Start Date: 15/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/2/1966 Version End Date:
Not shown	1726.0	W	Licence No: 2569001063 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "well At Helmshore, Rossendale" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/2/1966 Version End Date:
Not shown	1726.0	W	Licence No: 2569001063 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "well At Helmshore, Rossendale" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/2/1966 Version End Date:
Not shown	1726.0	W	Licence No: 2569001063 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "well At Helmshore, Rossendale" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 9/2/1966 Version End Date:
Not shown	1726.0	W	Licence No: 2569001063 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: Well At Helmshore, Rossendale Data Type: Point	Annual Volume (m <sup>3</sup> ): 5141.52 Max Daily Volume (m <sup>3</sup> ): 1713.84 Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2007 Version End Date:

Not shown	1726.0	W	Licence No: 2569001063 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: Well At Helmshore, Rossendale Data Type: Point	Annual Volume (m <sup>3</sup> ): 5141.52 Max Daily Volume (m <sup>3</sup> ): 1713.84 Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2007 Version End Date:
Not shown	1726.0	W	Licence No: 2569001063 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: Well At Helmshore, Rossendale Data Type: Point	Annual Volume (m <sup>3</sup> ): 5141.52 Max Daily Volume (m <sup>3</sup> ): 1713.84 Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2007 Version End Date:
Not shown	1860.0	N	Licence No: 2569001157 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: "well At Laund Slack Farm, Haslingden" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 2203 Original Start Date: 17/5/1967 Expiry Date: - Issue No: 100 Version Start Date: 17/5/1967 Version End Date:
Not shown	1860.0	N	Licence No: 2569001157 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: Well At Laund Slack Farm, Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 2203 Original Start Date: 17/5/1967 Expiry Date: - Issue No: 100 Version Start Date: 17/5/1967 Version End Date:

## 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	Direction	NGR	Details	
Not shown	583.0	N	379900, 422100	Licence No: 2569001239 Details: General use relating to Secondary Category (Very Low Loss) Direct Source: "surface, Non-tidal - North West Region" Point: "langwood Brook At Townsendfold, Rawtenstall" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 2828 Original Start Date: 20/9/1991 Expiry Date: - Issue No: 100 Version Start Date: 20/9/1991 Version End Date:
Not shown	583.0	N	379900, 422100	Licence No: 2569001239 Details: Transfer between sources Direct Source: "surface, Non-tidal - North West Region" Point: "langwood Brook At Townsendfold, Rawtenstall" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 2828 Original Start Date: 20/9/1991 Expiry Date: - Issue No: 100 Version Start Date: 20/9/1991 Version End Date:
Not shown	583.0	N	379900, 422100	Licence No: 2569001239 Details: General Use Relating To Secondary Category (Very Low Loss) Direct Source: Surface, Non-tidal - North West Region Point: Langwood Brook At Townsendfold, Rawtenstall Data Type: Point	Annual Volume (m <sup>3</sup> ): 232300.6 Max Daily Volume (m <sup>3</sup> ): 636.44 Application No: 2828 Original Start Date: 20/9/1991 Expiry Date: - Issue No: 100 Version Start Date: 20/9/1991 Version End Date:
Not shown	583.0	N	379900, 422100	Licence No: 2569001239 Details: Transfer Between Sources (Pre Water Act 2003) Direct Source: Surface, Non-tidal - North West Region Point: Langwood Brook At Townsendfold, Rawtenstall Data Type: Point	Annual Volume (m <sup>3</sup> ): 232300.6 Max Daily Volume (m <sup>3</sup> ): 636.44 Application No: 2828 Original Start Date: 20/9/1991 Expiry Date: - Issue No: 100 Version Start Date: 20/9/1991 Version End Date:

30C	726.0	W	378600, 421300	Licence No: 2569001203 Details: Spray Irrigation - Direct Direct Source: "surface, Non-tidal - North West Region" Point: "unnamed Trib Of R Ogden At Fair Hill Terrace, Helmshore" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 2522 Original Start Date: 31/1/1978 Expiry Date: - Issue No: 100 Version Start Date: 31/1/1978 Version End Date:
31C	726.0	W	378600, 421300	Licence No: 2569001203 Details: Spray Irrigation - Direct Direct Source: Surface, Non-tidal - North West Region Point: Unnamed Trib Of R Ogden At Fair Hill Terrace, Helmshore Data Type: Point	Annual Volume (m <sup>3</sup> ): 1136.5 Max Daily Volume (m <sup>3</sup> ): 72.73 Application No: 2522 Original Start Date: 31/1/1978 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2008 Version End Date:
Not shown	1413.0	N	379100, 422900	Licence No: 2569001082 Details: Boiler Feed Direct Source: "surface, Non-tidal - North West Region" Point: "reservoir Fed By Langwood Brk At Grane Mill, Haslingden" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: CW 1774 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 10/7/2000 Version End Date:
Not shown	1413.0	N	379100, 422900	Licence No: 2569001082 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "surface, Non-tidal - North West Region" Point: "reservoir Fed By Langwood Brk At Grane Mill, Haslingden" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: CW 1774 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 10/7/2000 Version End Date:
Not shown	1413.0	N	379100, 422900	Licence No: 2569001082 Details: Boiler Feed Direct Source: Surface, Non-tidal - North West Region Point: Reservoir Fed By Langwood Brk At Grane Mill, Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: CW 1774 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 10/7/2000 Version End Date:
Not shown	1413.0	N	379100, 422900	Licence No: 2569001082 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-tidal - North West Region Point: Reservoir Fed By Langwood Brk At Grane Mill, Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: CW 1774 Original Start Date: 20/1/1966 Expiry Date: - Issue No: 101 Version Start Date: 10/7/2000 Version End Date:
Not shown	1568.0	W	377800, 421600	Licence No: 2569001013 Details: Water Wheels Not used for Power Direct Source: "surface, Non-tidal - North West Region" Point: "reservoir (3), Adjacent To Premises, Higher Mi\$78" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 1298 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 13/10/1980 Version End Date:
Not shown	1568.0	W	377800, 421600	Licence No: 2569001013 Details: Water Wheels Not Used For Power Direct Source: Surface, Non-tidal - North West Region Point: Reservoir (3), Adjacent To Premises, Higher Mill, Helmshore Data Type: Point	Annual Volume (m <sup>3</sup> ): 909200 Max Daily Volume (m <sup>3</sup> ): 4546 Application No: 1298 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2007 Version End Date:
Not shown	1568.0	W	377800, 421600	Licence No: 2569001013 Details: Water Wheels Not used for Power Direct Source: Surface, Non-tidal - North West Region Point: Reservoir (3), Adjacent To Premises, Higher Mi\$78 Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 1298 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 13/10/1980 Version End Date:
Not shown	1594.0	W	377800, 421700	Licence No: 2569001013 Details: Water Wheels Not used for Power Direct Source: "surface, Non-tidal - North West Region" Point: "reservoir (3), Adjacent To Premises, Higher Mill, H" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 1298 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 13/10/1980 Version End Date:

Not shown	1594.0	W	377800, 421700	Licence No: 2569001013 Details: Water Wheels Not Used For Power Direct Source: Surface, Non-tidal - North West Region Point: Reservoir X 3 Adjacent To Premises Higher Mill Data Type: Point	Annual Volume (m <sup>3</sup> ): 909200 Max Daily Volume (m <sup>3</sup> ): 4546 Application No: 1298 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/4/2007 Version End Date:
Not shown	1594.0	W	377800, 421700	Licence No: 2569001013 Details: Water Wheels Not used for Power Direct Source: Surface, Non-tidal - North West Region Point: Reservoir (3), Adjacent To Premises, Higher Mill, H Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 1298 Original Start Date: 3/2/1966 Expiry Date: - Issue No: 100 Version Start Date: 13/10/1980 Version End Date:
Not shown	1771.0	NW	378000, 422500	Licence No: 2569001093 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "surface, Non-tidal - North West Region" Point: "reservoir At Premises, Grane Road Mill, Haslingden" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 1248 Original Start Date: 26/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/1/1966 Version End Date:
Not shown	1771.0	NW	378000, 422500	Licence No: 2569001093 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-tidal - North West Region Point: Reservoir At Premises Grane Road Mill Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): 34095 Max Daily Volume (m <sup>3</sup> ): 131.83 Application No: 1248 Original Start Date: 26/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/1/1966 Version End Date:
Not shown	1771.0	NW	378000, 422500	Licence No: 2569001093 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-tidal - North West Region Point: Reservoir At Premises, Grane Road Mill, Haslingden Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Application No: 1248 Original Start Date: 26/1/1966 Expiry Date: - Issue No: 100 Version Start Date: 26/1/1966 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	Direction	NGR	Details	
Not shown	1726.0	W	377600, 421100	Licence No: 2569001063 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "well At Helmshore, Rossendale" Data Type: Point	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
Not shown	1726.0	W	377600, 421100	Licence No: 2569001063 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: Well At Helmshore, Rossendale Data Type: Point	Annual Volume (m <sup>3</sup> ): 5141.52 Max Daily Volume (m <sup>3</sup> ): 1713.84 Original Application No: 1146 Original Start Date: 9/2/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:

## 5.6 Source Protection Zones

Report Reference: CMAPS-CM-211792-7904-010313EDR

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

**No**

Database searched and no data found.

## 5.7 River Quality

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

**Yes**

### Biological Quality:

Database searched and no data found.

### Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAH). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (5d):

ID	Distance [m]	Direction	NGR	River Details	Chemical Quality Grade (Headline Indicator)				
					2005	2006	2007	2008	2009
Not shown	585.0	S	379400, 420400	River Name: Irwell Reach: Rossendale Stw To Chest Wheel Bridge End/Start of Stretch: Start of Stretch NGR	B	A	A	B	B

## 5.8 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 (5d):

ID	Distance	Direction	Details
1	38.0	SE	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
2	128.0	SE	River Name: River Irwell Water Course Name: IRWELL Welsh River Name: - Alternative Name: - River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
3A	138.0	SE	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
4A	139.0	SE	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
5	148.0	E	River Name: River Irwell Water Course Name: IRWELL Welsh River Name: - Alternative Name: - River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
6	148.0	E	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined

7	162.0	E	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: YES Main River Status: Currently Undefined
8	174.0	SE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
9	200.0	SE	River Name: River Irwell Water Course Name: IRWELL Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
10	347.0	E	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
11	372.0	E	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
12	440.0	E	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
13	447.0	W	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined

## 5.9 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 to Surface Water (m)	on-site	0-50	51-250
Surface water features within 250m of the study site	Yes	Yes	Yes

# 6. Environment Agency Flood Map

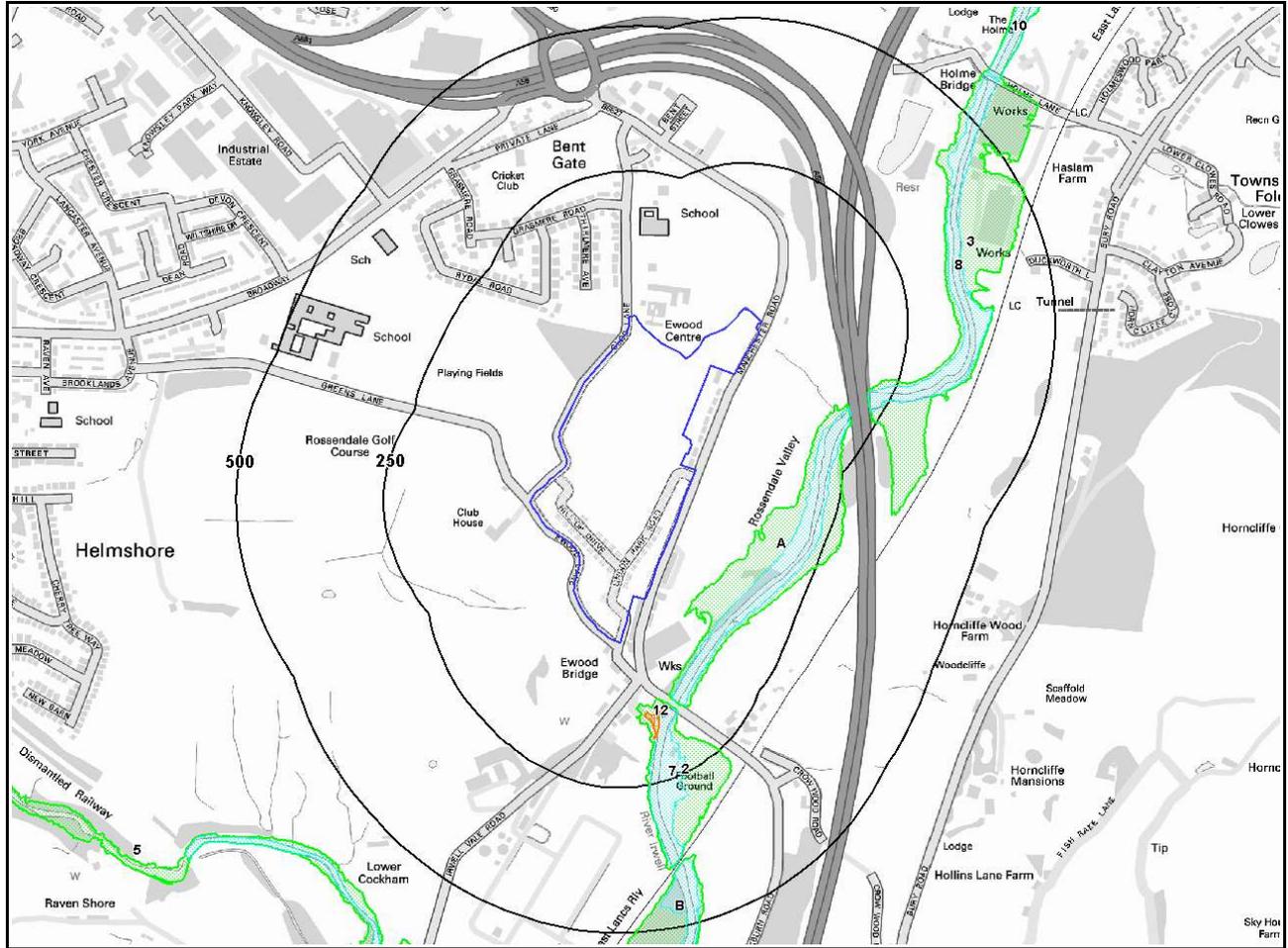
NW

▲  
N

NE

◀W

▶E



SW

▼  
S

SE

Environment Agency Flood Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207

-  Zone 2 Floodplain
-  Zone 3 Floodplain
-  Flood Storage Area
-  Area Benefiting from Flood Defences
-  Flood Defences
-  Site Outline
-  Search Buffers (m)

## 6. Flooding

### 6.1 Zone 2 Flooding

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

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

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

ID	Distance	Direction	Update	Type
1A	73.0	SE	30-Nov-2012	Zone 2 - (Fluvial Models )
2	109.0	S	30-Nov-2012	Zone 2 - (Fluvial Models )
3	211.0	SE	30-Nov-2012	Zone 2 - (Fluvial Models )

### 6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

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

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

ID	Distance	Direction	Update	Type
6A	118.0	SE	30-Nov-2012	Zone 3 - (Fluvial Models )
7	129.0	S	30-Nov-2012	Zone 3 - (Fluvial Models )
8	211.0	SE	30-Nov-2012	Zone 3 - (Fluvial Models )

### 6.3 Flood Defences

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

### 6.4 Areas benefiting from Flood Defences

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

### 6.5 Areas used for Flood Storage

**Are there any areas used for Flood Storage within 250m of the study site?** **No**

---

## 6.6 Groundwater Flooding Susceptibility Areas

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

**Yes**

---

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

**Very High**

---

## 6.7 Groundwater Flooding Confidence Areas

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

**High**

---

**Notes:**

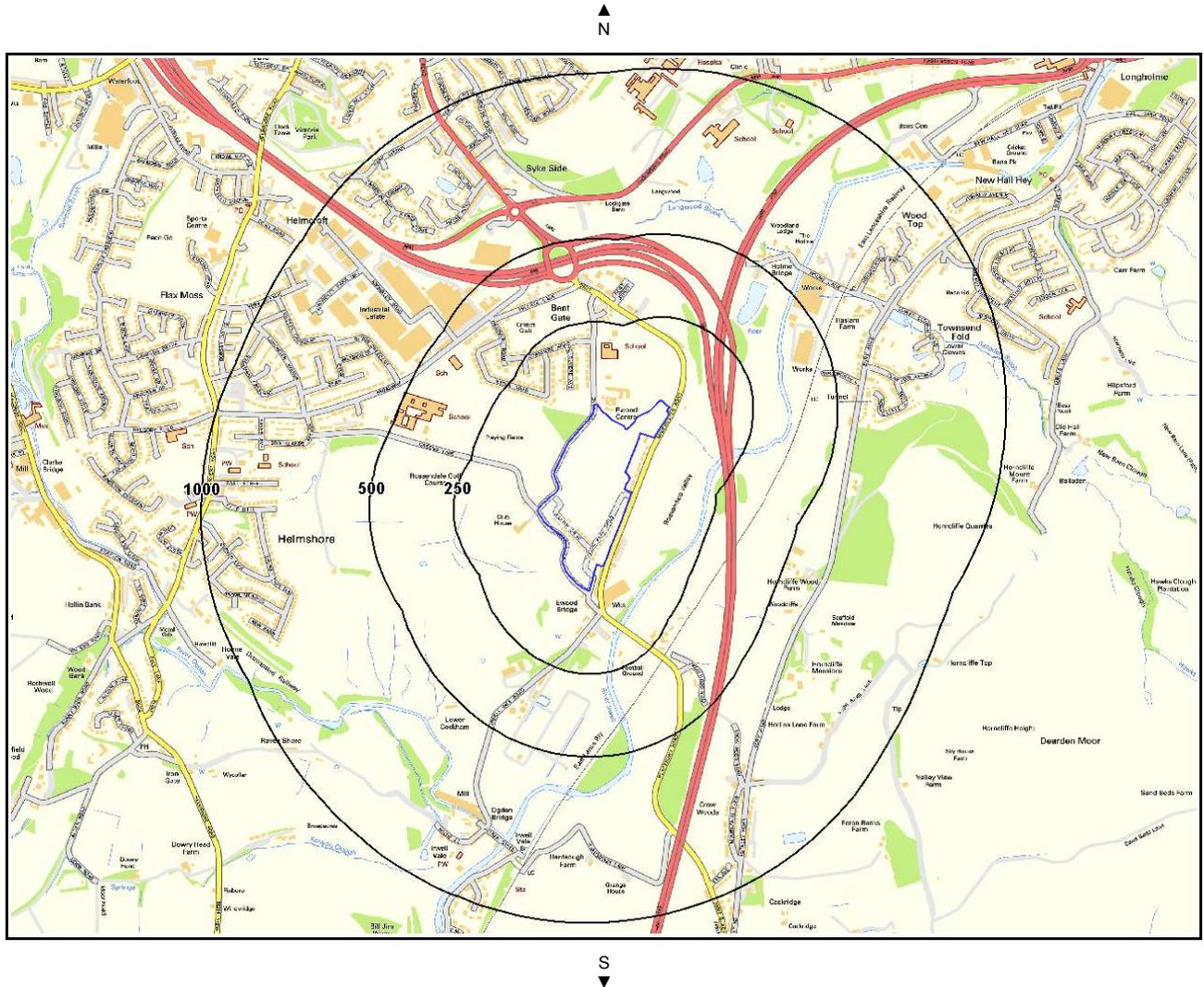
Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

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

NW

NE



W

E

SW

SE

Designated Environmentally Sensitive Sites Legend



Crown Copyright. All Rights Reserved  
Licence Number: 100035207

Site Outline	SAC	SSSI	NNR	World Heritage Sites
Areas of Outstanding Natural Beauty	SPA	Ramsar	LNR	Environmentally Sensitive Areas
	Nitrate Vulnerable Zones	Nitrate Sensitive Areas	National Parks	Ancient Woodlands

## 7. Designated Environmentally Sensitive Sites

**Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? No**

**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/Countryside Council for Wales and Scottish Natural Heritage are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	SSSI Name	Data Source
Not shown	1724.0	SW	Hodge Clough	Natural England

**Records of National Nature Reserves (NNR) within 2000m of the study site: 0**

Database searched and no data found.

**Records of Special Areas of Conservation (SAC) within 2000m of the study site: 0**

Database searched and no data found.

**Records of Special Protection Areas (SPA) within 2000m of the study site: 0**

Database searched and no data found.

**Records of Ramsar sites within 2000m of the study site: 0**

Database searched and no data found.

**Records of Local Nature Reserves (LNR) within 2000m of the study site: 0**

Database searched and no data found.

**Records of World Heritage Sites within 2000m of the study site: 0**

Database searched and no data found.

**Records of Environmentally Sensitive Areas within 2000m of the study site: 0**

Database searched and no data found.

**Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site: 0**

Database searched and no data found.

---

**Records of National Parks (NP) within 2000m of the study site: 0**

Database searched and no data found.

---

**Records of Nitrate Sensitive Areas within 2000m of the study site: 0**

Database searched and no data found.

---

**Records of Nitrate Vulnerable Zones within 2000m of the study site: 0**

Database searched and no data found.

---

**Records of Ancient Woodland within 2000m of the study site: 2**

The following Ancient Woodland records are supplied by English Nature/Scottish Natural Heritage/Countryside Council for Wales and are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	Ancient Woodland Name	Type
Not shown	1368.0	S	GREAT HEY WOOD	Ancient and Semi-Natural Woodland
Not shown	1724.0	SW	UNKNOWN	Ancient and Semi-Natural Woodland

## 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:

#### 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:

Hazard
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.

#### 8.1.2 Landslides

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

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

Hazard
Very significant potential for slope instability. Active or inactive landslides may be present; Seek expert advice about stability of the ground and the management of ground stability. For new build slope stability assessment necessary, special design may be necessary, construction may not be possible. For existing property significant increase in insurance risk in some cases. Site-specific consideration is necessary to separate cases where landslides are artificially or naturally stabilised from those that may be active or may fail.

#### 8.1.3 Soluble Rocks

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

Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

#### 8.1.4 Compressible Ground

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

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

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

---

### 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:

---

Hazard

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.

---

### 8.1.6 Running Sand

**What is the maximum Running Sand\* 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:

---

Hazard

Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

---

\* 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?** **Yes**

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

### 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.

### 9.3 Brine Affected Areas

**Are there any brine affected areas within 75m of the study site?** **No**

Database searched and no data found.

## 10. Contacts

### 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 (England & Wales)

Kingsley Dunham Centre  
Keyworth, Nottingham NG12 5GG  
Tel: 0115 936 3143. Fax: 0115 936 3276. Email:  
enquiries@bgs.ac.uk  
Web: www.bgs.ac.uk  
BGS Geological Hazards Reports and general geological  
enquiries

centremapslive.com  
the mapping portal from Laser Surveys



### Environment Agency

National Customer Contact Centre  
PO Box 544  
Rotherham  
S60 1BY  
Tel: 08708 506 506  
Web: www.environment-agency.gov.uk  
Email: enquiries@environment-agency.gov.uk



### Health Protection Agency

Chilton, Didcot, Oxon, OX11 0RQ  
Tel: 01235 822622 www.hpa.org.uk/radiation  
Radon measures and general radon information and  
guidance



### The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG  
Tel: 0845 762 6848  
DX 716176 Mansfield 5  
Web: [www.groundstability.com](http://www.groundstability.com)



### Ordnance Survey

Romsey Road  
Southampton SO16 4GU  
Tel: 08456 050505



### Local Authority

Authority: Rossendale Borough Council  
Phone: 01706 217777  
Web: www.rossendale.gov.uk  
Address: Town Hall, Lord Street, Rawtenstall, Rossendale,  
BB4 7LZ

### Get Mapping PLC

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



### Acknowledgements

This product includes map data licensed from Landmark Information Group Limited®.  
© Crown Copyright 2003 and Landmark Information Group Limited® 2003. All Rights Reserved.

Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, English Nature who retain the Copyright and Intellectual Property Rights for the data.

---

PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

## Standard Terms and Conditions

### 1 Definitions

In these conditions unless the context otherwise requires:

**"Beneficiary"** means the Client or the customer of the Client for whom the Client has procured the Services.

**"Commercial"** means any building which is not Residential.

**"Commission"** means an order for Consultancy Services submitted by a Client.

**"Consultancy Services"** mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

**"Contract"** means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions, the relevant GroundSure User Guide, proposal by GroundSure and the content of any subsequent report, and any agreed amendments in accordance with clause 11.

**"Client"** means the party that submits an Order or Commission.

**"Data Provider"** means any third party providing Third Party Content to GroundSure.

**"Data Report"** means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.

**"GroundSure"** means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.

**"GroundSure Materials"** means all materials prepared by GroundSure as a result of the provision of the Services, including but not limited to Data Reports, Mapping and Risk Screening Reports.

**"Intellectual Property"** means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trade mark or any other intellectual property rights.

**"Mapping"** an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure.

**"Order"** means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site.

**"Order Website"** means online platform via which Orders may be placed.

**"Report"** means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.

**"Residential"** means any building used as or suitable for use as an individual dwelling.

**"Risk Screening Report"** means one of GroundSure's risk screening reports, comprising factual data with interpretation in respect of the level of likely risk and/or liability, excluding **"Consultancy Services"**.

**"Services"** means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site.

**"Site"** means the landsite in respect of which GroundSure provides the Services.

**"Third Party Content"** means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.

**"User Guide"** means the relevant current version of the user guide, available upon request from GroundSure.

### 2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.

2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.

2.3 The Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.

2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others.

2.5 If a Client/Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to procure such insurance, but makes no warranty that such insurance shall be available from insurers or offered on reasonable terms. GroundSure does not endorse or recommend any particular insurance product, policy or insurer. Any insurance purchased shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. The Client/Beneficiary should take independent advice to ensure that the insurance policy requested and/or offered is suitable for its requirements.

2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

### 3 The Client's obligations

3.1 The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that GroundSure may in its own right enforce such terms and conditions against the Beneficiary pursuant to the Contracts (Rights of Third Parties) Act 1999. The Client shall be liable for all breaches of the Contract by the Beneficiary as if they were breaches by the Client. The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.

3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).

3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party who is considering acquiring the whole or part of the Site, or providing funding in relation to the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password.

### 4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to access the information contained in a Report, Mapping or in a report prepared by GroundSure in respect of or arising out of Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in clauses 4.2 and 4.3.

4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), (iv) the first purchaser or first tenant of the Site (v) the professional advisers and lenders of the first purchaser or tenant of the Site. Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in clauses 7 and 11.6 shall apply.

4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.

4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report, (except as permitted herein or by separate agreement with GroundSure) to: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.

4.6 Notwithstanding clause 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party.

### 5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services.

5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("**Payment Date**"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgment) at the rate of five per cent per annum above the Bank of England base rate from time to time.

5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute.

### 6 Intellectual Property and Confidentiality

6.1 Subject to the provisions of clause 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services and Content are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.

6.2 The Client shall acknowledge the ownership of the **Third Party Content** where such **Third Party Content** is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party.

6.3 Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client acknowledges that the proprietary rights subsisting in copyright, database rights and any other intellectual property rights in respect of any data and information contained in any Report are and shall remain (subject to clause 11.1) the property of GroundSure and/or any third party that has supplied data or information used to create a Report, and that these conditions do not purport to grant, assign or transfer any such rights in respect thereof to a Client and/or a Beneficiary.

6.5 The Client shall (and shall procure that any recipients of the Report as permitted under clause 4.2 shall):

(i) not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

- (iii) not create any product or report which is derived directly or indirectly from the data contained in the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
  - (iv) not combine the Services with or incorporate such Services into any other information data or service; and
  - (v) not reformat or otherwise change (whether by modification, addition or enhancement), data contained in the Services (save that those acting in a professional capacity to the Beneficiary shall not be in breach of this clause 6.5(v) where such reformatting is in the normal course of providing advice based upon the Services), in each case of parts (iii) to (v) inclusive, whether or not such product or report is produced for commercial profit or not.
- 6.6 The Client and/or Beneficiary shall and shall procure that any party to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.
- 6.8 Save as otherwise set out in these terms and conditions, any information provided by one party ("**Disclosing Party**") to the other party ("**Receiving Party**") shall be treated as confidential and only used for the purposes of these terms and conditions, except in so far as the Receiving Party is authorised by the Disclosing Party to provide such information in whole or in part to a third party.

## 7 Liability

### THE CLIENT'S ATTENTION IS DRAWN TO THIS PROVISION

- 7.1 Subject to the provisions of this clause 7, GroundSure shall be liable to the Beneficiary only in relation to any direct losses or damages caused by any negligent act or omission of GroundSure in preparing the GroundSure Materials and provided that the Beneficiary has used all reasonable endeavours to mitigate any such losses.
- 7.2 GroundSure shall not be liable for any other losses or damages incurred by the Beneficiary, including but not limited to:
- (i) loss of profit, revenue, business or goodwill, losses relating to business interruption, loss of anticipated savings, loss of or corruption to data or for any special, indirect or consequential loss or damage which arise out of or in connection with the GroundSure Materials or otherwise in relation to a Contract;
  - (ii) any losses or damages that arise as a result of the use of all or part of the GroundSure Materials in breach of these terms and conditions or contrary to the terms of the relevant User Guide;
  - (iii) any losses or damages that arise as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such part is based on any Third Party Content or any reasonable interpretation of Third Party Content. The Client accepts, and shall procure that any other Beneficiary shall accept, that it has no claim or recourse to any Data Provider in relation to Third Party Content; and/or
  - (iv) any loss or damage to a Client's computer, software, modem, telephone or other property caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.3 GroundSure's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution or otherwise, arising in connection with the GroundSure Materials or otherwise in relation to the Contract shall be limited to £10 million in total (i) for any one claim or (ii) for a series of connected claims brought by one or more parties.
- 7.4 For the duration of the liability periods set out in clauses 7.5 and 7.6 below, GroundSure shall maintain professional indemnity insurance in respect of its liability under these terms and conditions provided such insurance is readily available at commercially viable rates. GroundSure shall produce evidence of such insurance if reasonably requested by the Client. A level of cover greater than GroundSure's current level of cover may be available upon request and agreement with the Client.
- 7.5 Any claim under the Contract in relation to Data Reports, Mapping and Risk Screening Reports, must be brought within six years from the date when the Beneficiary became aware that it may have a claim and in no event may a claim be brought twelve years or more after completion of such a Contract. For the avoidance of doubt, any claim in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause 7.5 shall survive the expiry of those time periods provided the claim is actually commenced within six months of notification.
- 7.6 Any claim under the Contract in relation to Consultancy Services, must be brought within six years from the date the Consultancy Services were completed.
- 7.7 The Client accepts and shall procure that any other Beneficiary shall accept that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of any Data Provider and/or any Third Party Content provided by a Data Provider.
- 7.8 Nothing in these terms and conditions:
- (i) excludes or limits the liability of GroundSure for death or personal injury caused by GroundSure's negligence, or for fraudulent misrepresentation; or
  - (ii) shall affect the statutory rights of a consumer under the applicable legislation.

## 8 GroundSure right to suspend or terminate

- 8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:
- (i) the Client shall fail to pay any sum due to GroundSure within 28 days of the Payment Date; or
  - (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
  - (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
  - (iv) the Client or the Beneficiary breaches any material term of the Contract (including, but not limited to, the obligations in clause 4) incapable of remedy or if remediable, is not remedied within 14 days of notice of the breach.

## 9 Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.
- 9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

## 10 Consequences of Withdrawal, Termination or Suspension

- 10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/ Beneficiary in GroundSure's possession or control.
- 10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

## 11 General

- 11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.
- 11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.
- 11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.
- 11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey may enforce breach of clause 6.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information;
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
  - (vii) suspension or delay of services at public registries by Data Providers; or
  - (viii) changes in law.
- 11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.
- 11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.
- 11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.
- 11.12 If the Client or Beneficiary has a complaint about the Services, notice can be given in any format eg writing, phone, email to the Compliance Officer at GroundSure who will respond in a timely manner.

© GroundSure Limited January 2012

Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

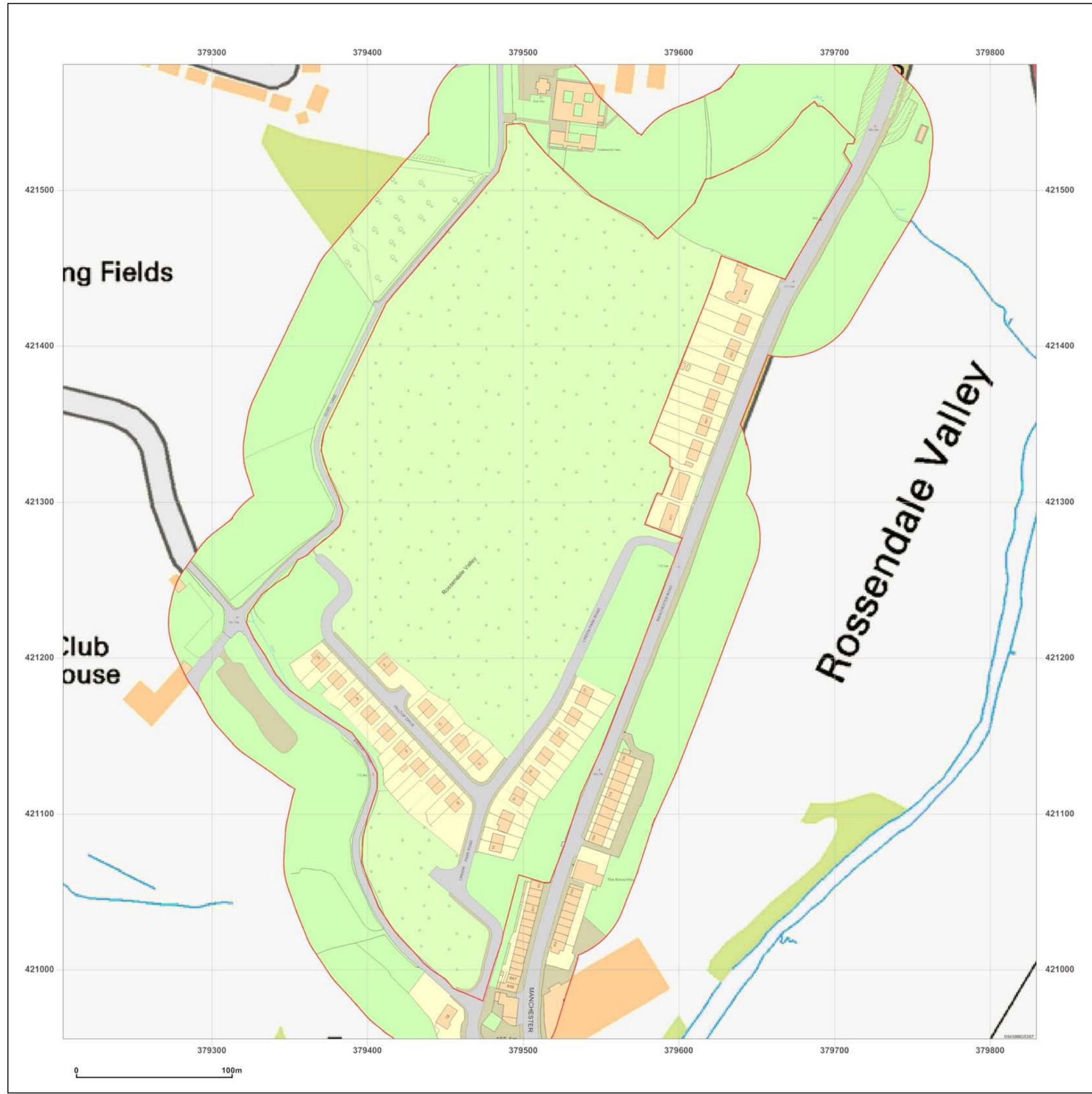
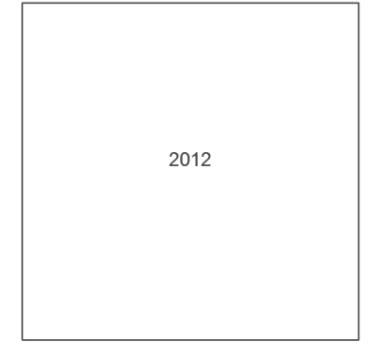
Client Ref: 7904  
Report Ref: CMAPS-CM-211792-7904-010313HIS  
Grid Ref: 379517, 421268

Map Name: MasterMap

Map date: 2012

Scale: 1:1,250

Printed at: 1:2,500



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1995

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1995  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

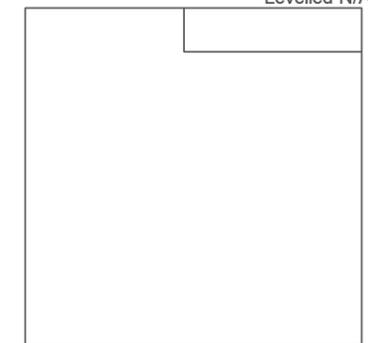
**Map date:** 1993

**Scale:** 1:1,250

**Printed at:** 1:2,500



Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

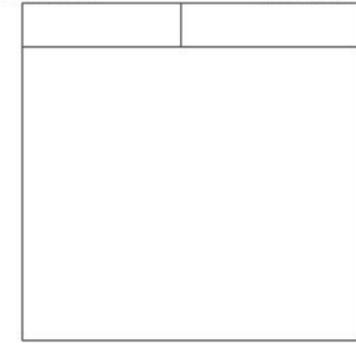
**Map date:** 1987-1989

**Scale:** 1:1,250

**Printed at:** 1:2,500



Surveyed 1970 Revised 1988 Edition N/A Copyright 1989 Levelled N/A	Surveyed 1963 Revised 1987 Edition N/A Copyright 1987 Levelled 1963
--	---



 Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

 Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

### Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1987

**Scale:** 1:1,250

**Printed at:** 1:2,500



Surveyed N/A	Surveyed N/A
Revised 1987	Revised N/A
Edition N/A	Edition N/A
Copyright 1987	Copyright 1987
Levelled 1961	Levelled N/A

Surveyed 1961
Revised 1987
Edition N/A
Copyright 1987
Levelled 1961



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

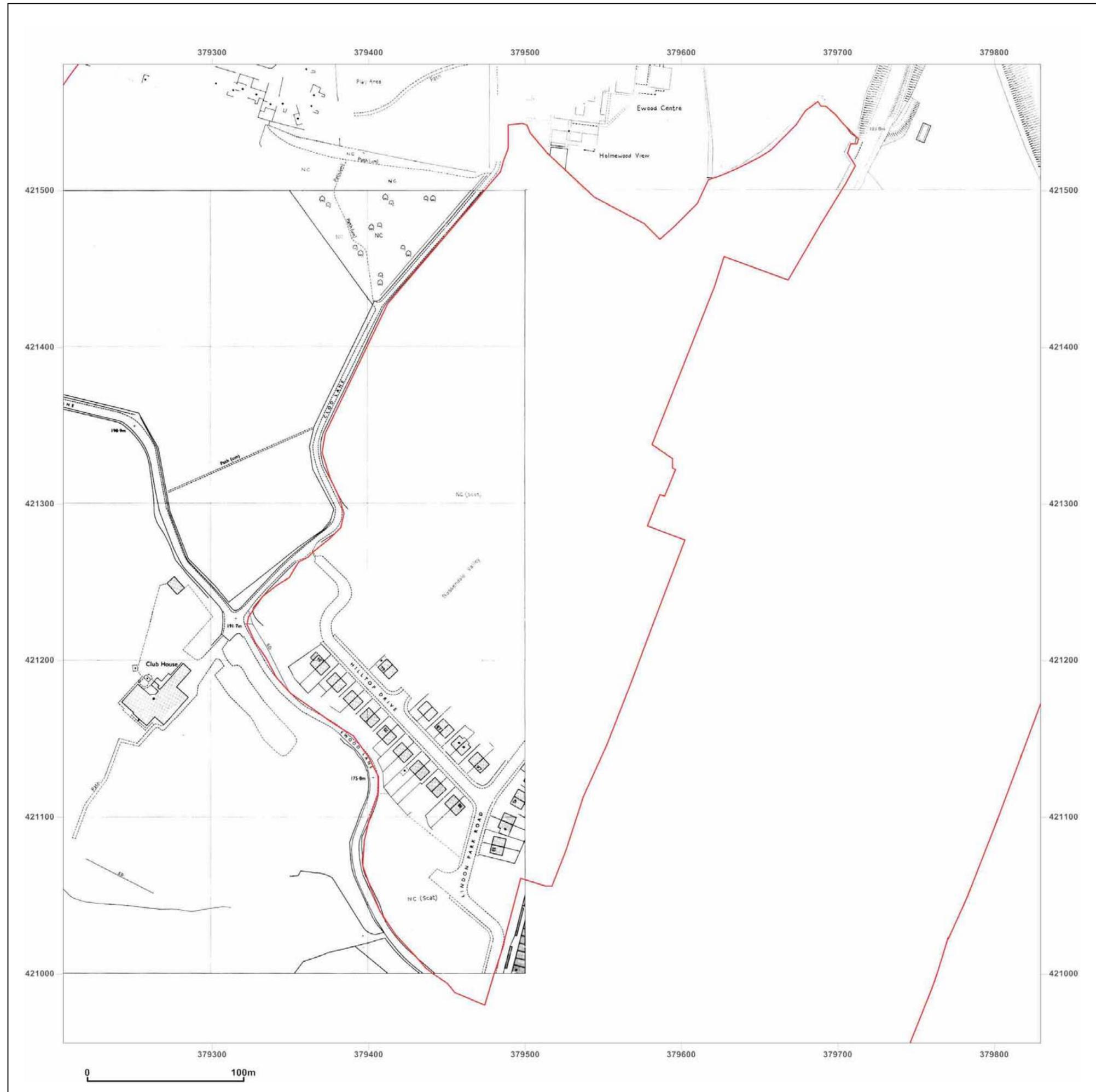


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
groundsure@centremaps.com

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1987

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1961  
Revised 1987  
Edition N/A  
Copyright 1987  
Levelled 1961



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

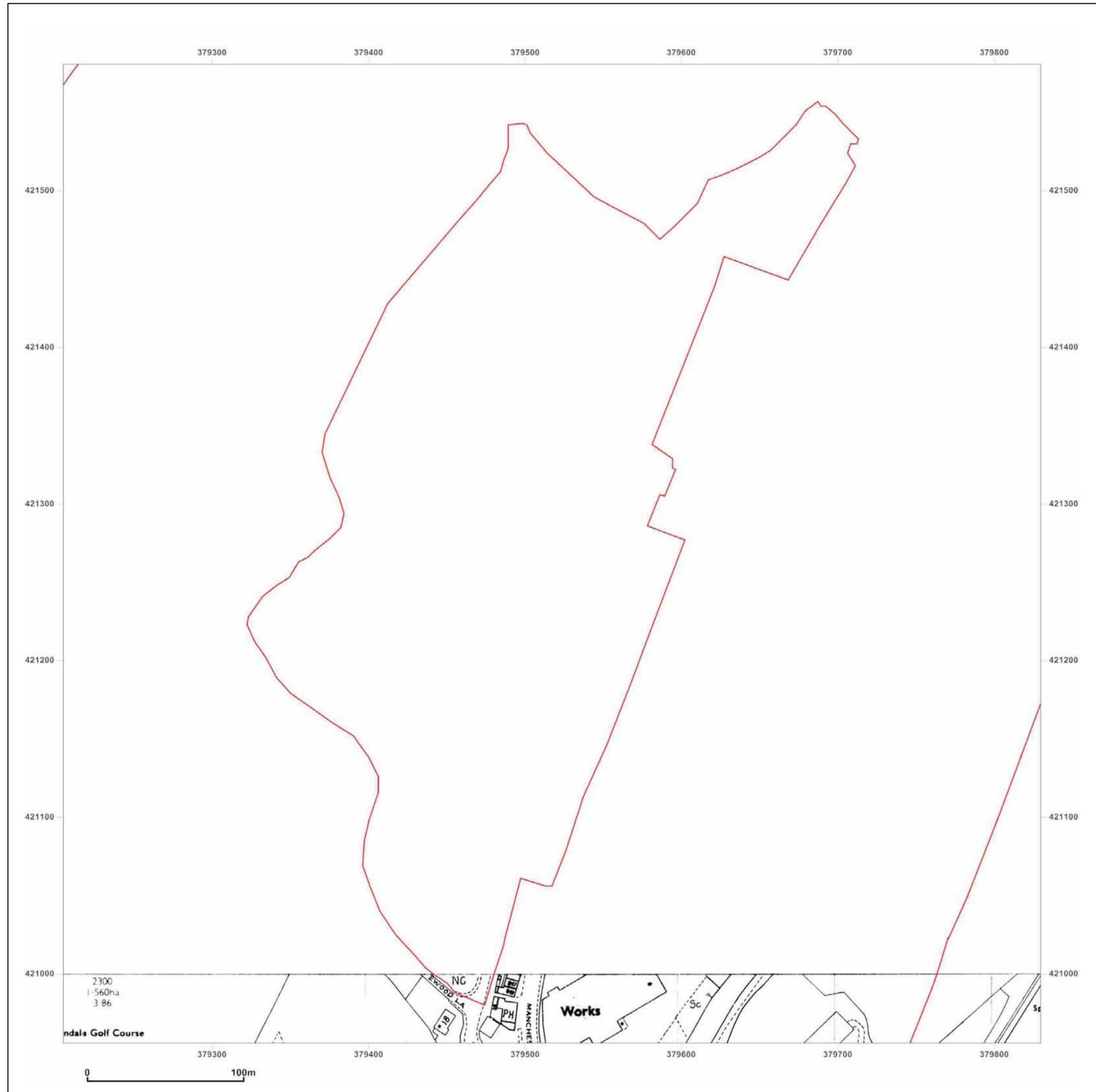


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

### Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1981-1983

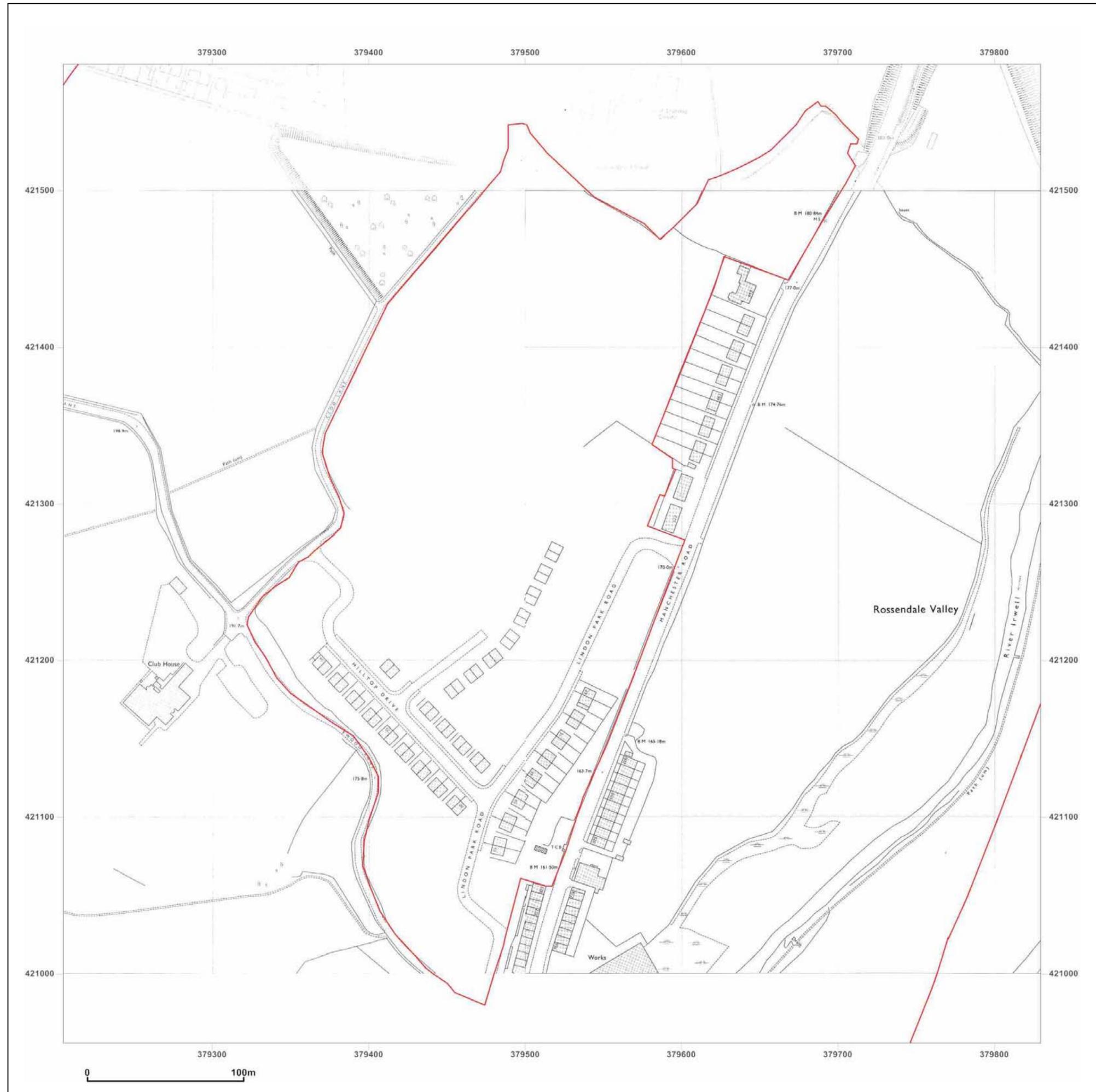
**Scale:** 1:1,250

**Printed at:** 1:2,500



Surveyed N/A Revised N/A Edition N/A Copyright 1983 Levelled 1961	Surveyed N/A Revised N/A Edition N/A Copyright 1983 Levelled 1961
---	---

Surveyed 1980 Revised 1980 Edition N/A Copyright 1981 Levelled 1961	Surveyed 1980 Revised 1980 Edition N/A Copyright 1981 Levelled 1961
---	---



 Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
groundsure@centremaps.com

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1981

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1961  
Revised 1981  
Edition N/A  
Copyright 1981  
Levelled 1961



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

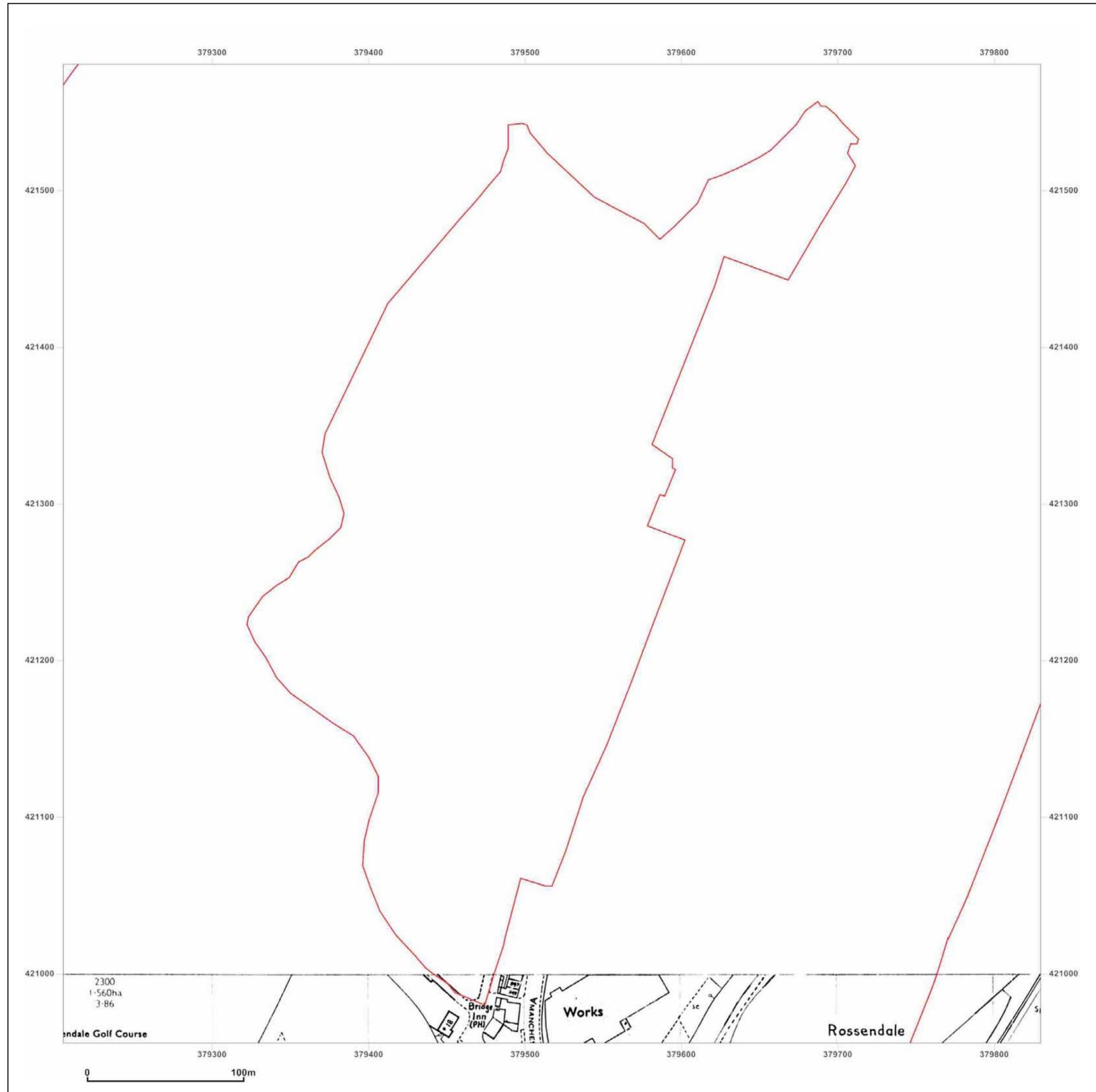


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1979

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1979  
Revised 1979  
Edition N/A  
Copyright 1979  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

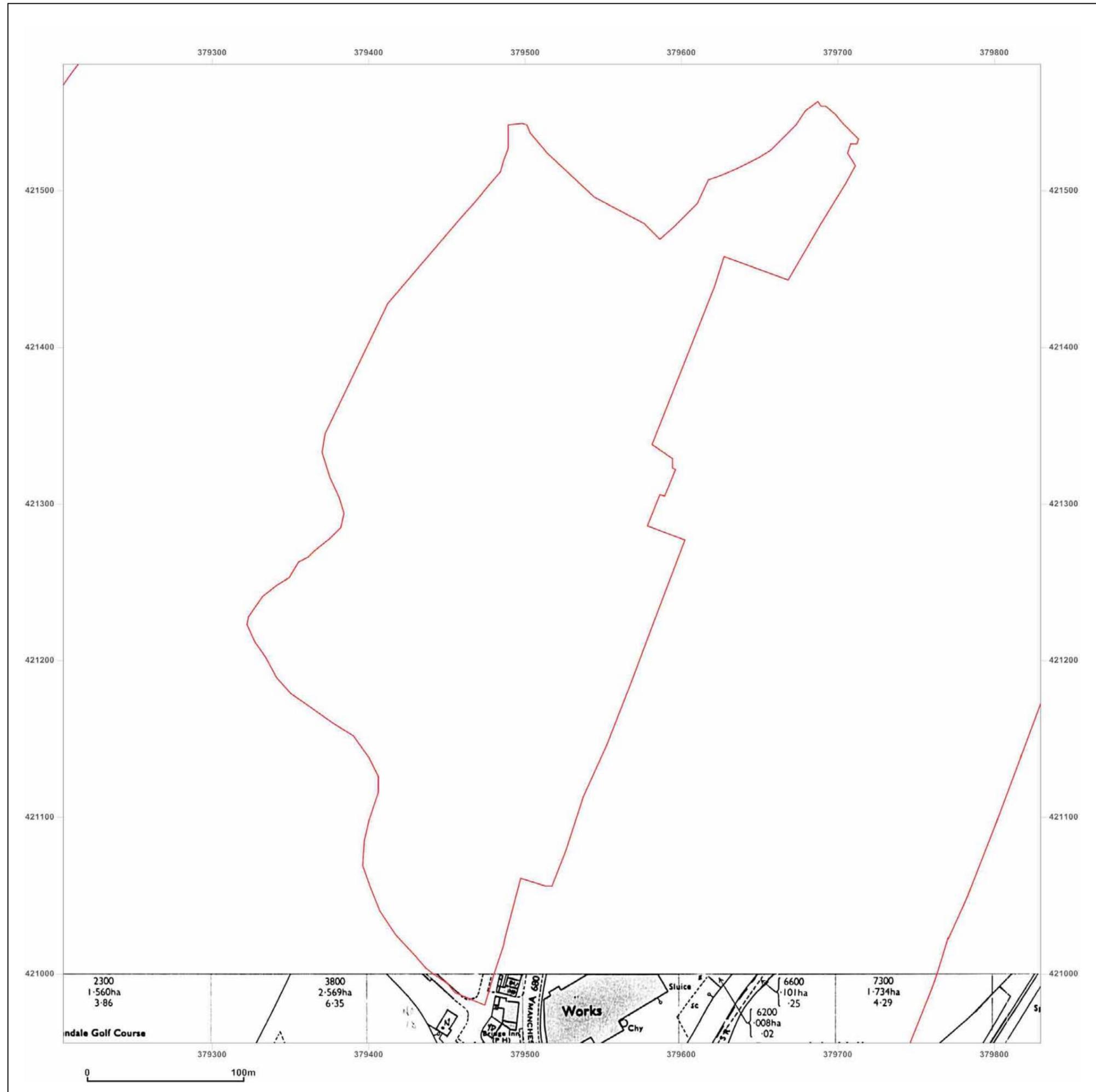


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

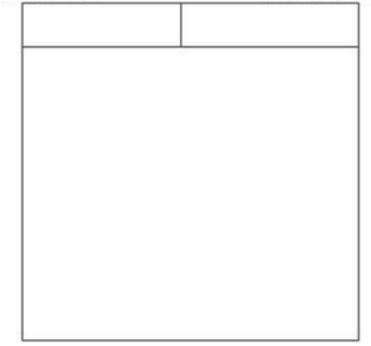
**Map date:** 1973-1974

**Scale:** 1:1,250

**Printed at:** 1:2,500



Surveyed 1960 Revised 1973 Edition N/A Copyright 1974 Levelled 1961	Surveyed 1960 Revised 1973 Edition N/A Copyright 1974 Levelled 1961
---	---



 Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

 Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

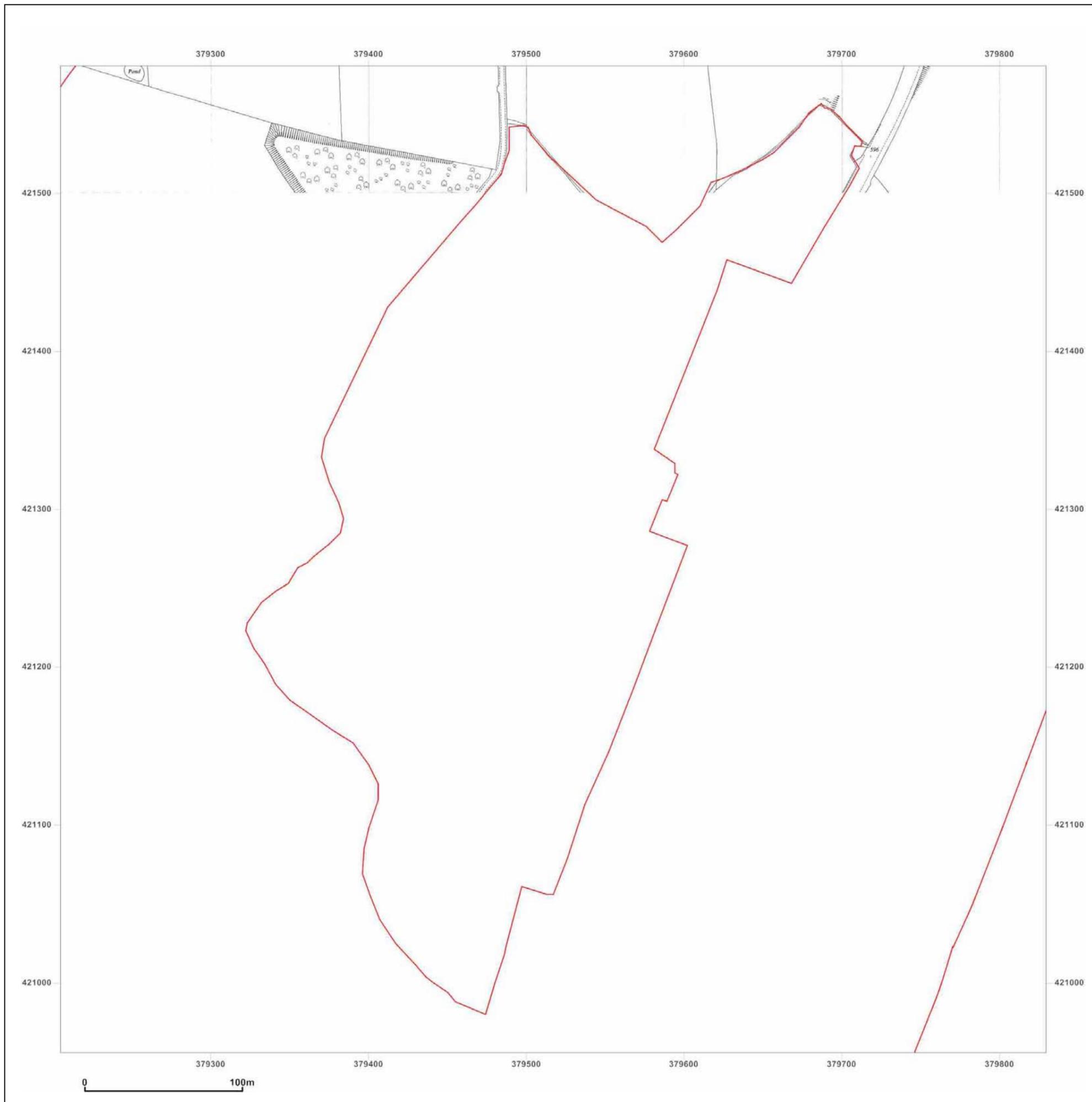
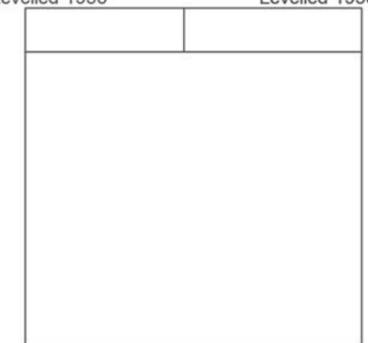
**Map date:** 1961

**Scale:** 1:1,250

**Printed at:** 1:2,500



Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1956	Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1956
---	---



 **GroundSure** Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

## Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1961

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1961  
Revised 1961  
Edition 1963  
Copyright 1963  
Levelled 1956



Surveyed 1961  
Revised 1961  
Edition N/A  
Copyright 1963  
Levelled 1956



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

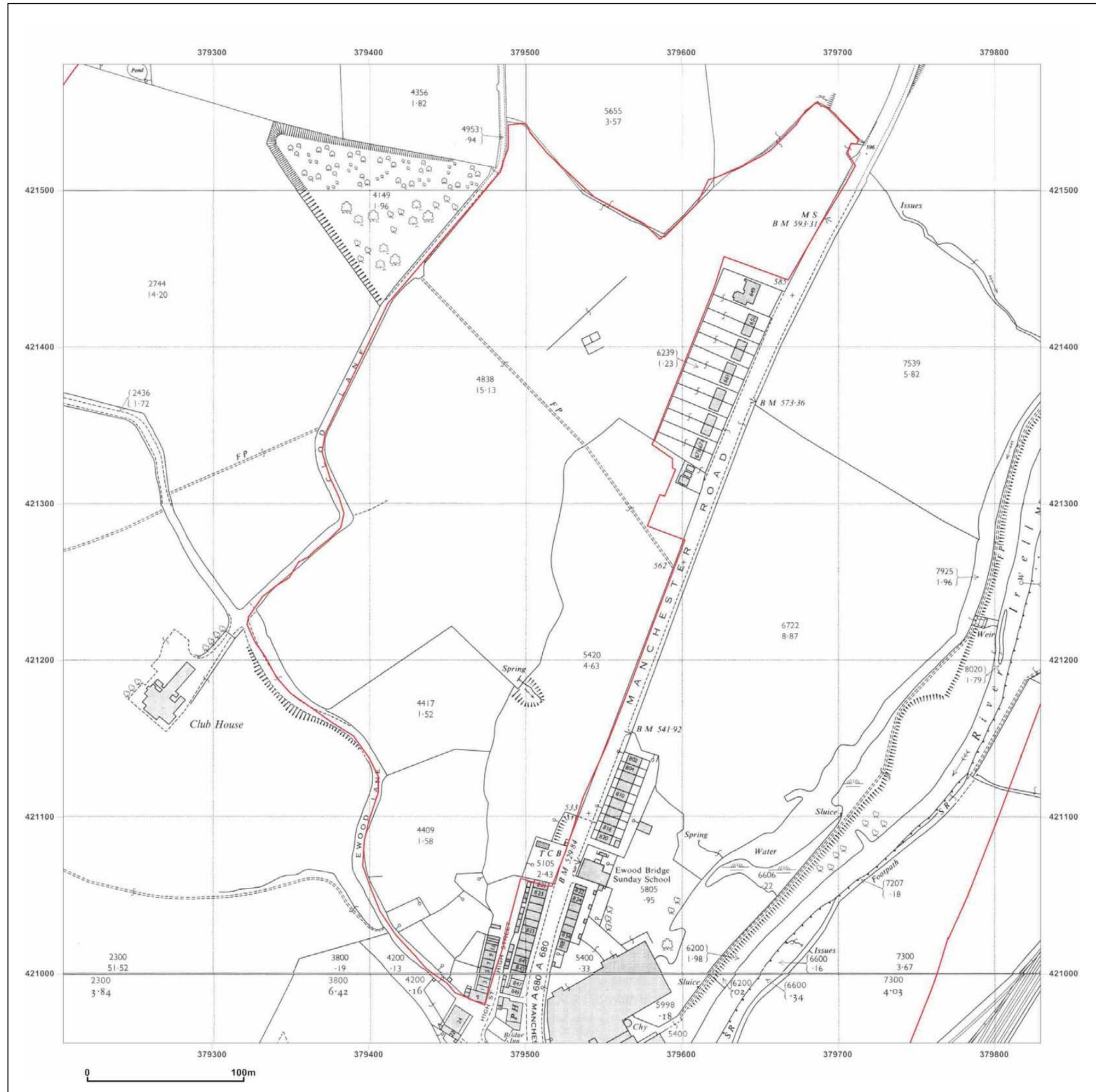


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

### Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** County Series

**Map date:** 1930

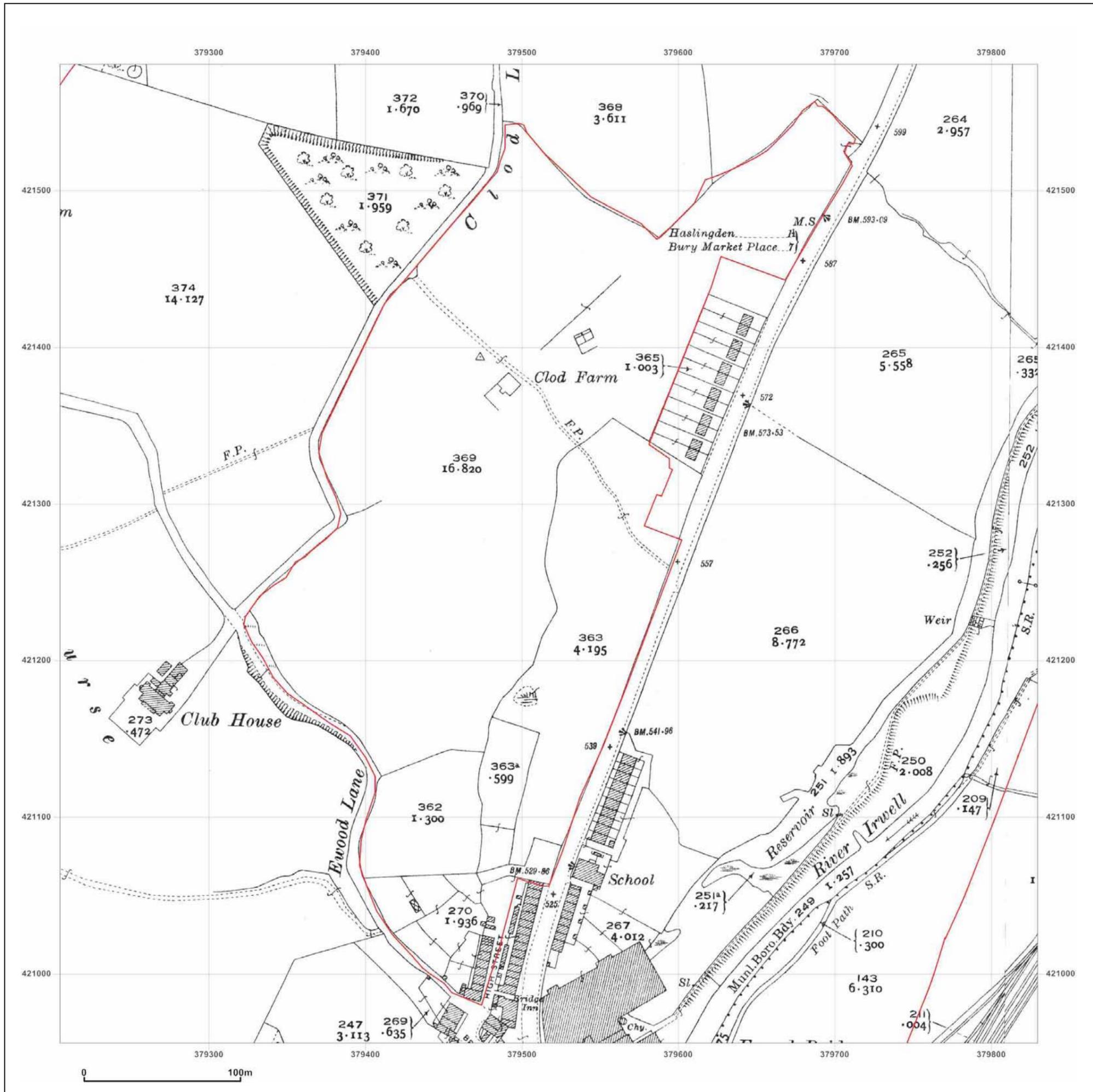
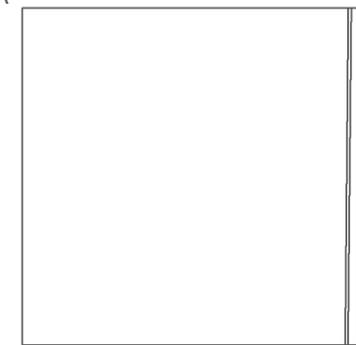
**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1930  
Revised 1930  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1930  
Revised 1930  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
groundsure@centremaps.com

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)





# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

## Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

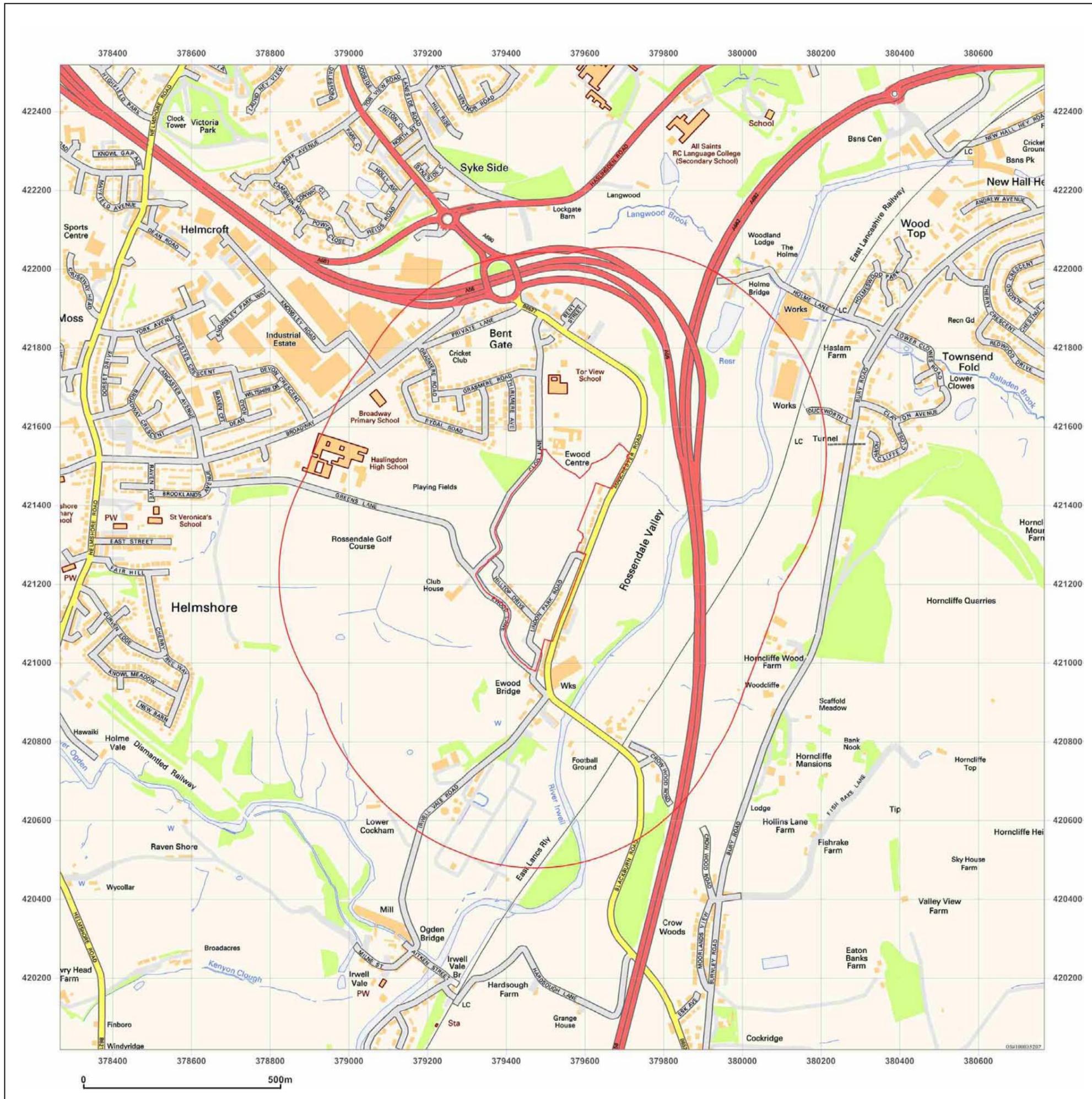
Client Ref: 7904  
Report Ref: CMAPS-CM-211792-7904-010313HIS  
Grid Ref: 379517, 421268

Map Name: National Grid

Map date: 2012

Scale: 1:10,000

Printed at: 1:10,000



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

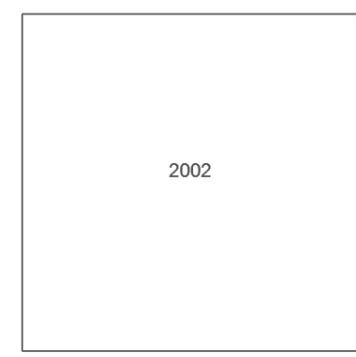
Client Ref: 7904  
Report Ref: CMAPS-CM-211792-7904-010313HIS  
Grid Ref: 379517, 421268

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

Client Ref: 7904  
Report Ref: CMAPS-CM-211792-7904-010313HIS  
Grid Ref: 379517, 421268

Map Name: National Grid

Map date: 1988-1992

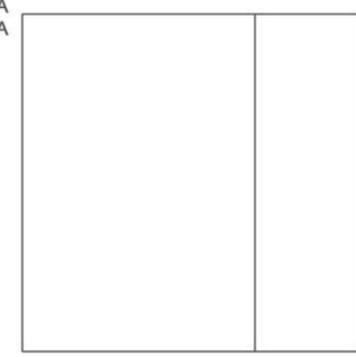
Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1985  
Revised 1988  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1988  
Revised 1992  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

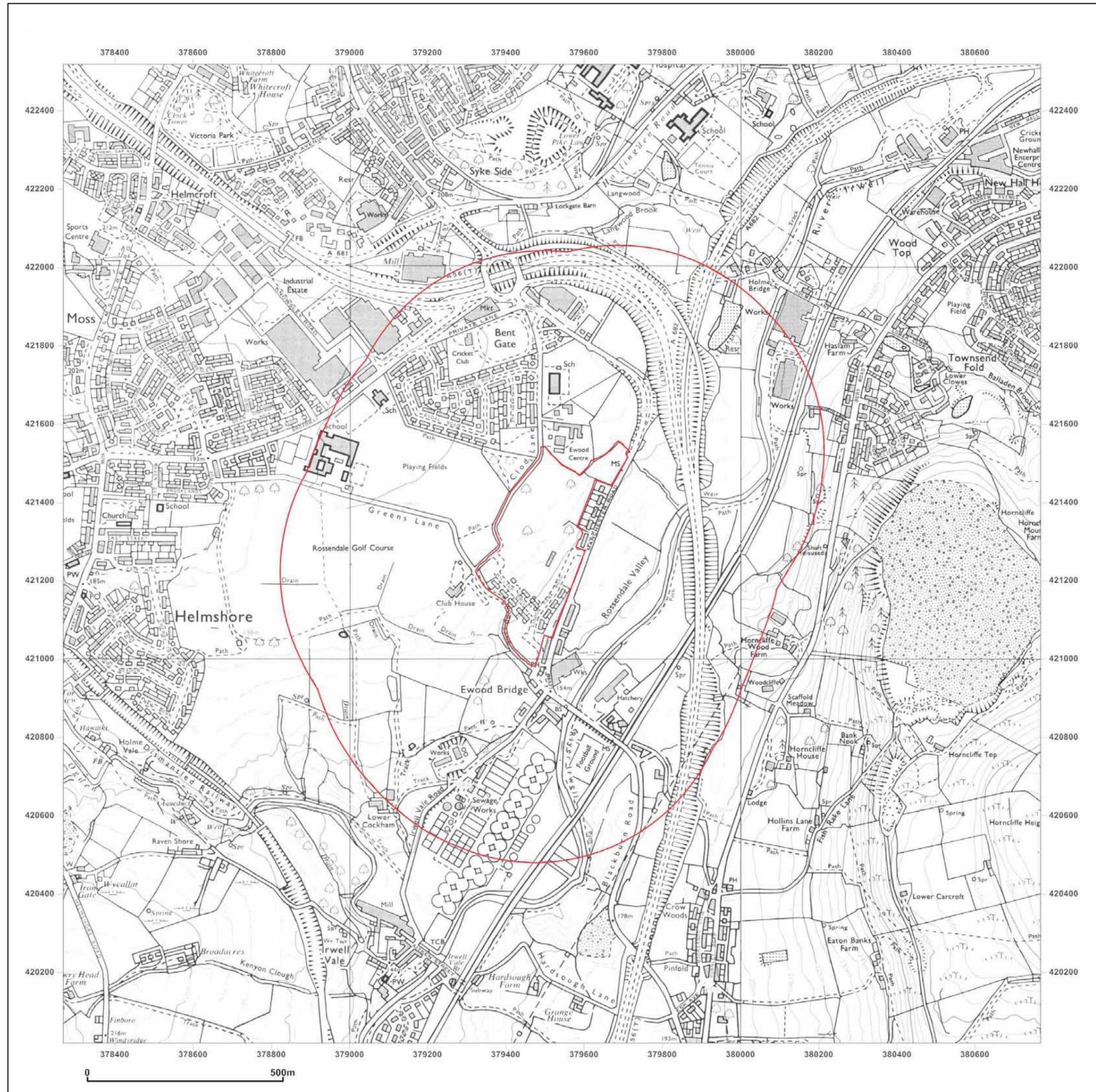


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

**Site Details:**

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** National Grid

**Map date:** 1977-1978

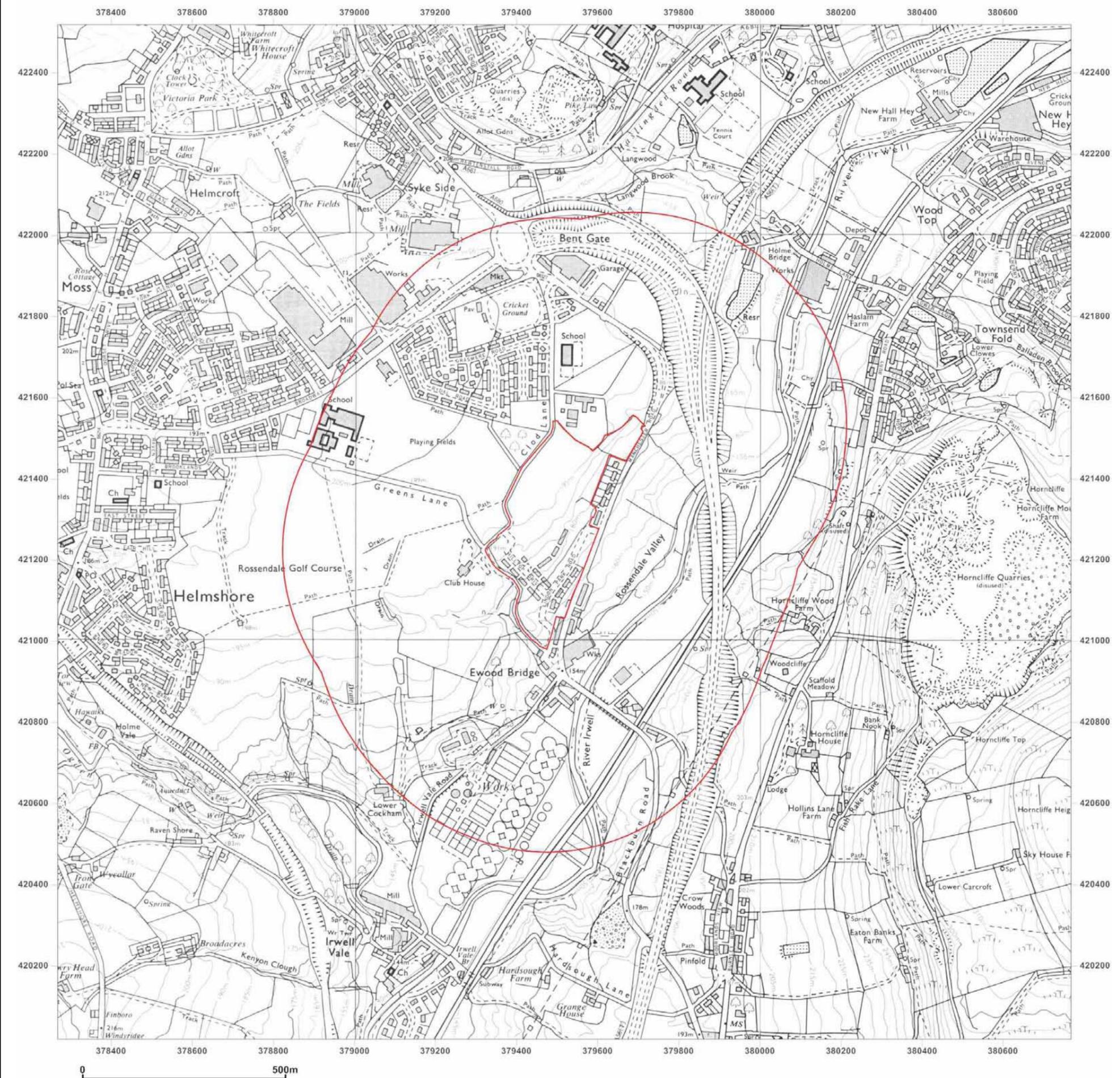
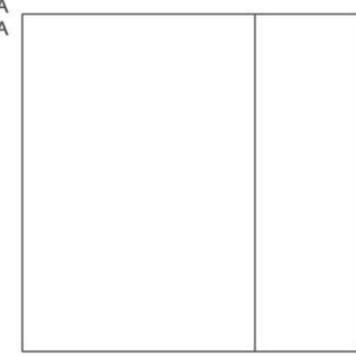
**Scale:** 1:10,000

**Printed at:** 1:10,000



Surveyed 1977  
Revised 1977  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1977  
Revised 1978  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

## Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** Provisional

**Map date:** 1965-1968

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1965  
Revised 1965  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1968  
Revised 1968  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1968  
Revised 1968  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1967  
Revised 1967  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
groundsure@centremaps.com

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

### Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** Provisional

**Map date:** 1949-1950

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1950  
Revised 1950  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1950  
Revised 1950  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1949  
Revised 1949  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1949  
Revised 1949  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

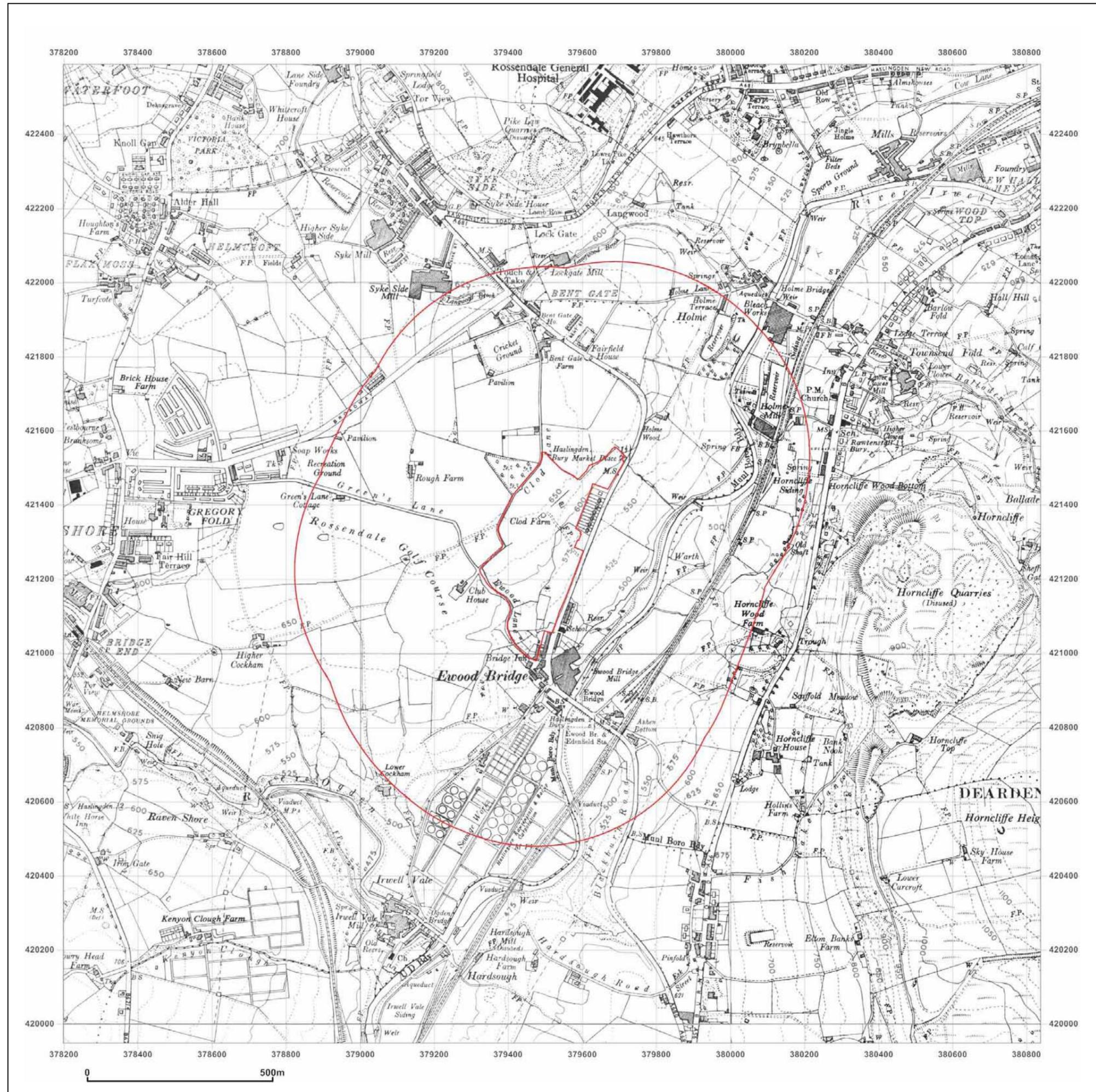


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
groundsure@centremaps.com

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



Ordnance Survey®  
Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

Client Ref: 7904  
Report Ref: CMAPS-CM-211792-7904-010313HIS  
Grid Ref: 379517, 421268

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847  
Revised 1938  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1938  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1938  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1938  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

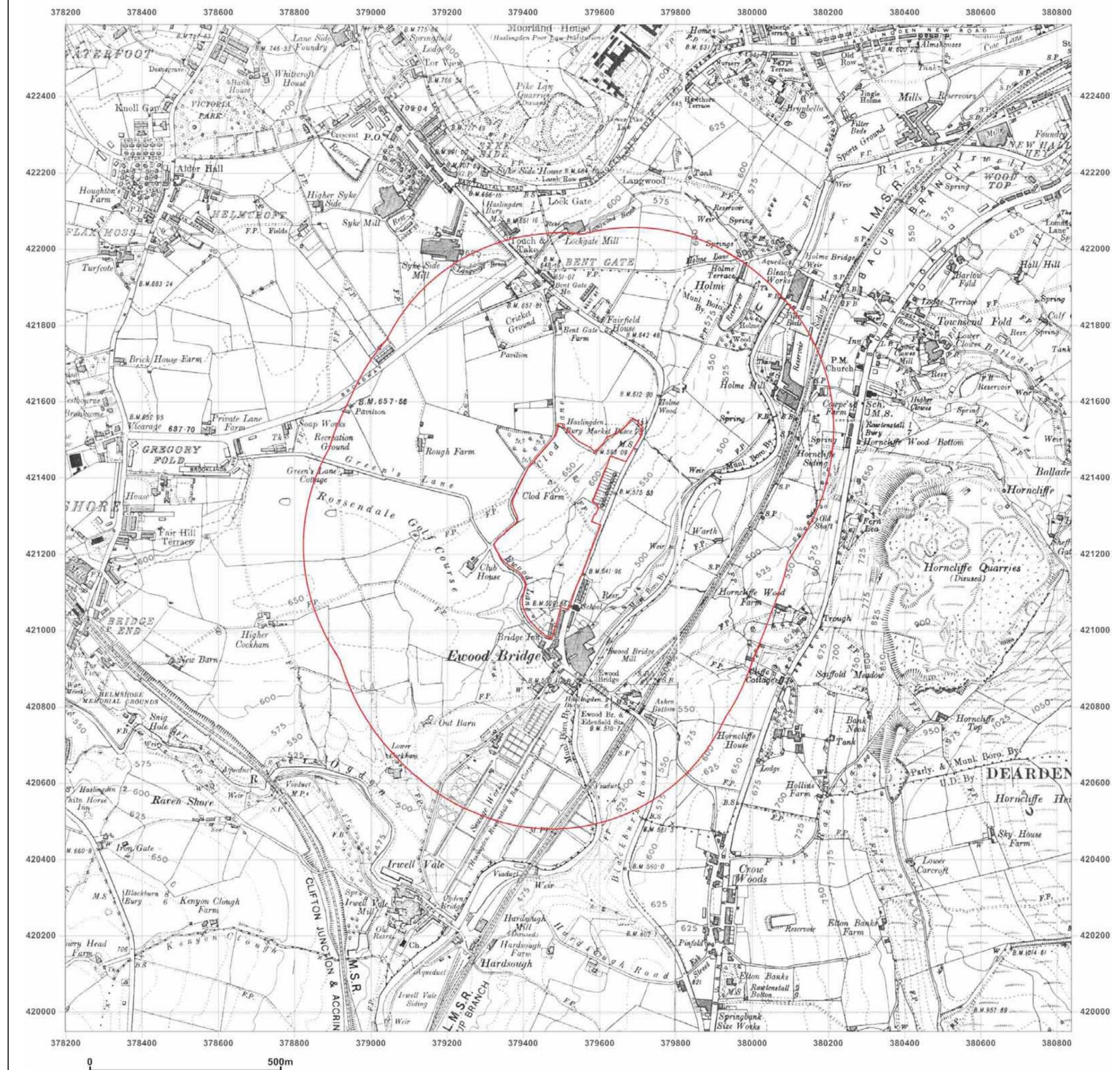


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

### Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** County Series

**Map date:** 1927-1928

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1847  
Revised 1928  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1928  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1927  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1927  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

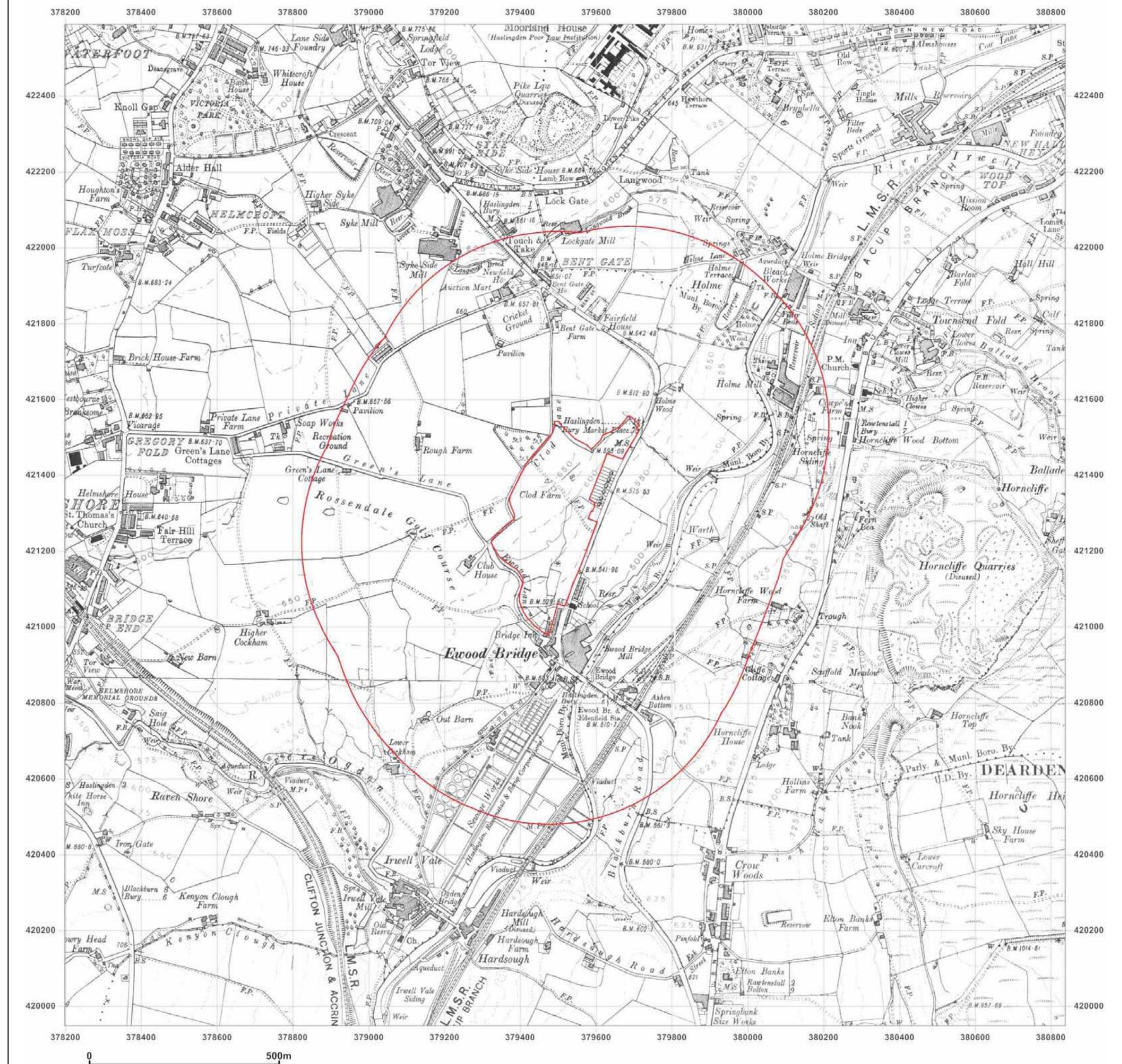


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

## Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** County Series

**Map date:** 1908-1909

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1847  
Revised 1909  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1908  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1908  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed 1847  
Revised 1908  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)

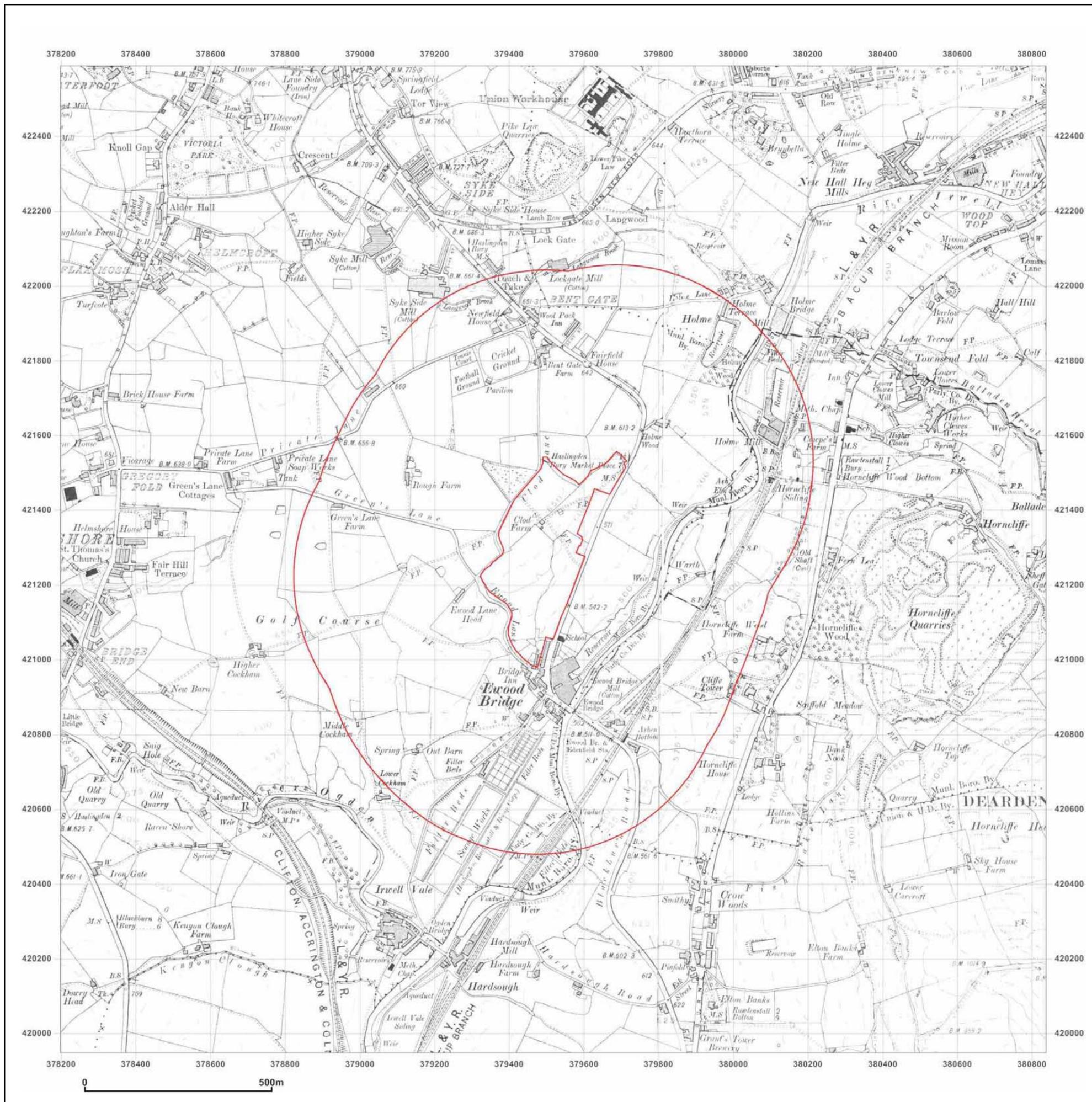


Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
groundsure@centremaps.com

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)



# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

### Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** County Series

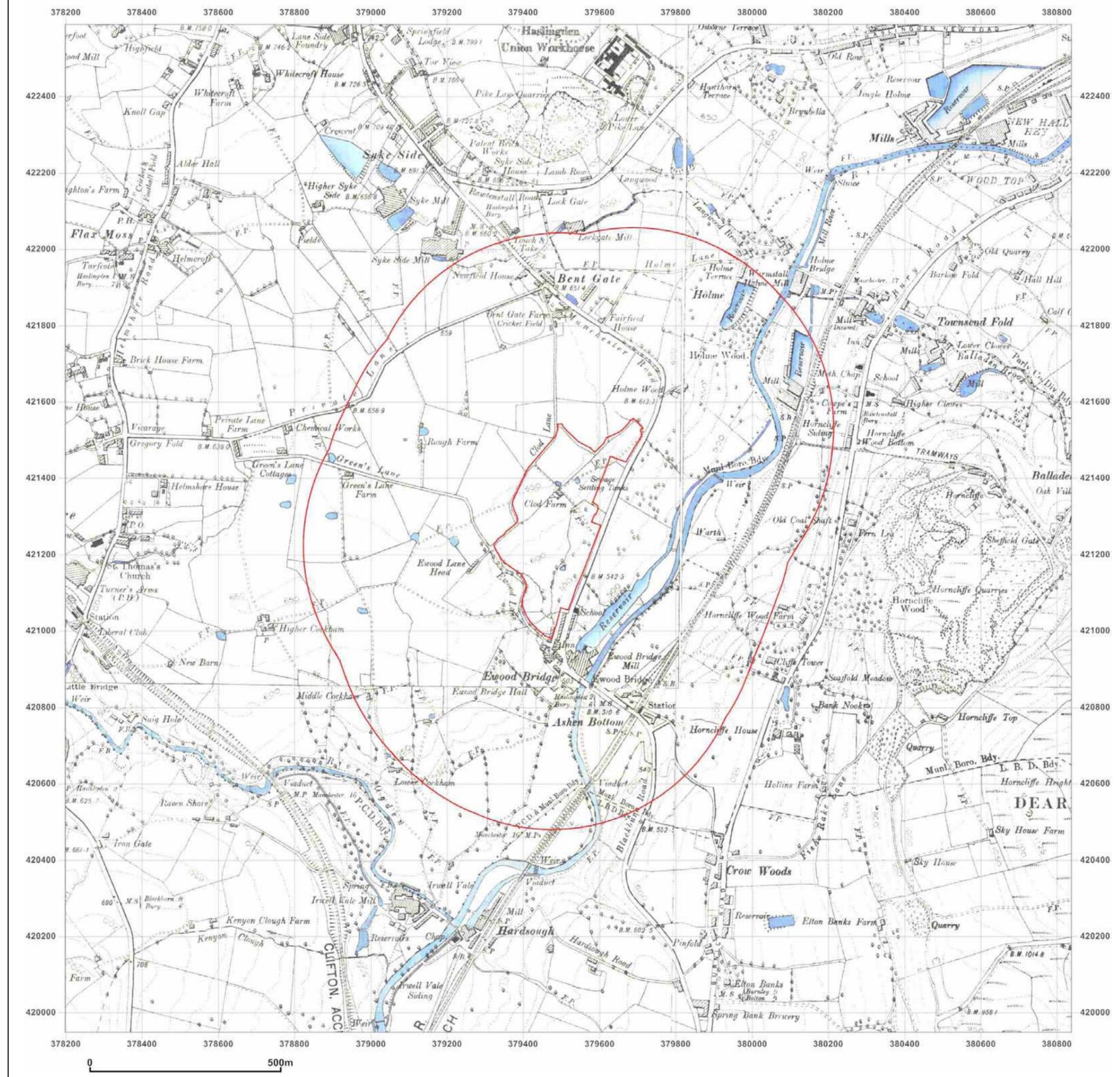
**Map date:** 1891-1892

**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed 1892 Revised 1892 Edition N/A Copyright N/A Levelled N/A	Surveyed 1891 Revised 1891 Edition N/A Copyright N/A Levelled N/A
Surveyed 1891 Revised 1891 Edition N/A Copyright N/A Levelled N/A	Surveyed 1891 Revised 1891 Edition N/A Copyright N/A Levelled N/A



 Produced by GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)  
 Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
[groundsure@centremaps.com](mailto:groundsure@centremaps.com)

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

# Ordnance Survey® Historical Mapping Extract

[www.centremapslive.com](http://www.centremapslive.com)

### Site Details:

LINDON PARK  
ROAD, GREENFIELD, ROSSEND  
ALE, BB4 6LZ

**Client Ref:** 7904  
**Report Ref:** CMAPS-CM-211792-7904-010313HIS  
**Grid Ref:** 379517, 421268

**Map Name:** County Series

**Map date:** 1846-1851

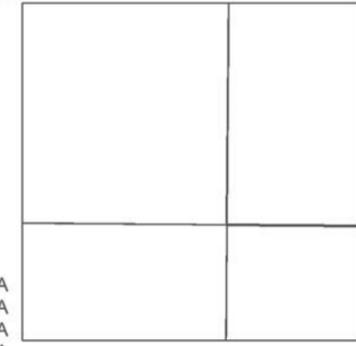
**Scale:** 1:10,560

**Printed at:** 1:10,560



Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A



Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A

Surveyed N/A  
Revised N/A  
Edition N/A  
Copyright N/A  
Levelled N/A



Produced by  
GroundSure Environmental Insight  
[www.groundsure.com](http://www.groundsure.com)



Supplied by:  
[www.centremapslive.com](http://www.centremapslive.com)  
groundsure@centremaps.com

© Crown copyright and database rights 2013 Ordnance Survey 100035207

Production date: 01 March 2013

To view map legend click here [Legend](#)

