

PHASE 1 ENVIRONMENTAL SITE ASSESSMENT REPORT

LAND AT BUBWITH

1 HIGHFIELD ROAD

SELBY

YO8 6LY

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Executive Summary

The preliminary environmental site assessment indicates that the site can be classified as moderate risk in terms of contamination and the risks to the identified receptors (e.g. human health, controlled waters, buildings) following redevelopment is considered to be moderate.

This classification is due to the present of demolition rubble and broken the asbestos roofing on the ground surface which may have introduced contaminants into the shallow soils beneath the site. Potential contaminants include heavy metals and asbestos.

It is recommended a Phase 2 intrusive ground investigation is undertaken prior to site redevelopment to obtain additional information on the ground conditions and the contamination status. The investigation should be carried out by qualified and competent persons. The scope of works for the investigation will need to be submitted and approved by the local authority prior to the commencement of the Phase 2 intrusive works.

Disclaimer

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1 Introduction

1.1 Background

EnviroSolution Ltd was commissioned to undertake a Phase 1 Environmental Site Assessment for land located at Bubwith in Yorkshire. This report was commissioned to support a planning application for a residential development at the site.

1.2 Objectives

The objective of the preliminary environmental site assessment was:

- 1. To provide a summary of the environmental setting and historical land use of the site and immediate surrounding area.
- 2. To obtain information on the ground conditions present beneath the site.
- 3. To develop a conceptual site model and complete a generic quantitative risk assessment to identify any environmental risks and liabilities associated with ground conditions at the site.

1.3 Scope of Work

To achieve the objectives, the following scope of work was completed:

- A desk-based study of the site comprising a review of available environmental information for the site such as geological and hydrogeological data and historical land use information.
- 2. A site walkover survey.
- 3. Assessment of potential hazards and constraints during construction and longer term.

This work has been devised to generally comply with the relevant principles and requirements of the following legalisation and guidance:

- Part IIA of the Environmental Protection Act, 1990 and Section 57 of the Environmental Act 1995;
- Contaminated Land (England) (Amendment) Regulations 2012 and Contaminated Land Statutory Guidance (DEFRA, April 2012);
- National Planning Policy Framework (Ministry of Housing, Communities and Local Government, February 2019);
- BS10175: 2011 +A2:2017 "Investigation of Potentially Contaminated Sites- Code of Practice"; and
- Environment Agency (2020) Land Contamination Risk Management Report LCRM "How to assess and manage the risks from land contamination".

1.4 Information Sources

Historical Ordnance Survey maps have been obtained from historical records, ranging from 1854 to 2021. These maps provide high quality information on historical site use.

The British Geological Survey Geoindex database has been used to provide information on geo-environmental aspects of the site and the immediate surrounding area such as geological, hydrogeological and hydrological data.

The Environment Agency website (www.gov.uk/government/organisations/environment-agency) and Magic website (www.magic.gov.uk) was also used to obtain environmental information.

Industry Profiles produced by the Department of the Environment were utilised to obtain information on processes, materials and wastes associated potential contaminative land uses near the site.

Readily available information sources have been used to produce this desk-based study. Additional information may be requested by the Local Planning Authority (e.g. local authority environmental information request).

2 The Site

2.1 Site Location

The site is located at 1 Highfield Road, Bubwith, Selby, YO8 6LY. The British National Grid Reference for the approximate site centre is GR: 471765 436420.

The site location is shown on **Figure 1** in **Appendix A**.

2.2 Site Description

The site description is aided by the completion of a site walkover survey conducted by EnviroSolution on the 6th of April 2022. The site photographs are included in **Appendix B**.

The site is rectangular in shape and has an approximate area of 3,000 square meters. The site is currently occupied by several disused barns. Anecdotal evidence suggests the barns were used for pigs.

All of the barns are in a poor state of repair and have been partially demolished. Several piles of brick rubble and piles of asbestos roof sheeting were noted across the site. Additionally, broken fragments of asbestos roof sheeting were found amongst the barns.

Concrete footings are visible in places. The area in between the barns is covered with grass.

The site is generally flat and level with little change in elevation.

The site is accessed via a small track leading north from Highfield Road.

The site boundaries consist of hedgerows, small trees and fences.

The surrounding land use is predominantly residential and agricultural.

There are no petrol filling stations located within a 250m radius of the site.

The existing site layout is shown on Figure 2 which is included in Appendix A.

2.3 Development Proposals

It is understood that the development plans will include the construction of several residential dwellings. Plans will include areas for vehicle parking and areas of soft landscaping to be used as private gardens.

A copy of the proposed development plan is shown on Figure 3 in Appendix A.

2.4 Site History

The development site and surrounding area has been reviewed with reference to historical Ordnance Survey (OS) maps. The history of the site and immediate surrounding area is summarised in Table 1. Copies of the historical OS maps are included in **Appendix C**. A search buffer of 250m has been used.

Table 1 - Historic Mapping Review

Date	Scale	On Site	Off Site
1854	1:10,560	The site is undeveloped agricultural land.	The site lies on the eastern extent of the village of Bubwith.
			Land to the north, east and south of the site is undeveloped.
1891	1:2,500	No significant change.	Smithy 110m southwest of the site.
1909	1:2,500	No significant change.	Allotment gardens 250m east of the site.
1954	1:10,560	No significant change.	Residential development 20m east of the site.
1974	1:2,500	Site is developed with piggery.	Haulage works 160m east of the site. Joinery works 200m west of the site.
1980	1:2,500	No significant change.	No significant change.
1995	1:2,500	No significant change.	No significant change.
2022	1:10,000	No significant change.	No significant change.

3 Environmental Setting

3.1 Geology

Geological maps of the area indicate the site is underlain by Skipwith Sand Member which is of Quaternary age. The Skipwith Sand Member generally consists of pale brown slightly clayey sand.

The underlying bedrock consists of the Mercia Mudstone Group which is of Triassic age. The Mercia Mudstone Group generally consists of red mudstones and subordinate siltstones with thick halite-bearing units.

The nearest geological fault is located 30m south of the site.

A copy of the geological maps is included in **Appendix D.**

3.2 Radon

The site lies within the lowest band of radon potential where it is estimated that less than 1% of the properties are above the action level (low probability). Radon protective measures are not deemed necessary for the development.

3.3 Coal Mining Activity

The site falls within a coal mining area described as having minable coal deposits but does not lie within a 'Development High Risk Area' for coal mining, as defined by the Coal Authority. As such, it is considered that there are no coal mining related hazards which could affect the site.

A copy of the coal mining summary map is included in **Appendix E**.

3.4 Hydrogeology

The superficial Skipwith Sand Member deposits are designated as a Secondary Undifferentiated Aquifer, defined as; cases where it has not been possible to assign either category A or B to a soil type.

The underlying Mercia Mudstone Group is designated as a Secondary B Aquifer, defined as; predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

The site is not located within a Source Protection Zone.

There are no records of groundwater abstraction licences located within a 1km radius of the site.

A copy of the hydrogeological maps is included in **Appendix F**.

3.5 Hydrology

The River Derwent is located 600m southwest of the site. There are no further significant surface water features (lakes, rivers, reservoirs) located within a 1km radius of the site.

There are no minor surface water features located within a 250m radius of the site.

3.6 Flood Risk

The site lies within a Flood Zone 1, land assessed as having less than a 1 in 1,000 annual probability of river flooding (low probability).

The completion of a detailed Flood Risk Assessment is not required for this site.

3.7 Waste Management Facilities

There are no records of historic or currently landfill sites located within a 1km radius of the site.

There are no records of currently authorised landfill sites or sites operating under an environmental permit for waste operations located within a 1km radius of the site.

3.8 Environmental Permits, Incidents and Registers

There are several records of sites located within a 1km radius of the site operating under an environmental permit for discharges to water and groundwater. The nearest is held by Yorkshire Water Services Ltd 180m west of the site.

There are no records of any pollution events having occurred within a 1km radius of the site.

3.9 Designated Environmentally Sensitive Sites

There several records of designated environmentally sensitive sites located within a 1km radius of the site.

Table 2 - Environmental Designations Summary

Designation		Distance	Details
National	Nature	900m	The Lower Derwent Valley National Nature
Reserve			Reserve is located 900m west of the site.
Ramsar Sites		900m	The Lower Derwent Valley Ramsar Site is
			located 900m west of the site.

Designation		Distance	Details		
Special Areas	of	600m	The River Derwent Special Areas of		
Conservation			Conservation is located 600m west of the		
			site.		
Special Protec	ction	600m	The Lower Derwent Valley Special		
Areas			Protection Area is located 600m west of the		
			site.		

A copy of the environmental designation map is included in **Appendix G**.

4 Preliminary Conceptual Site Model

4.1 Introduction

In order to assess the environmental risks present, a preliminary conceptual model has been developed for the site. This model has been developed using best practice guidelines in conjunction with the current assessment framework taking into account the development proposals. This preliminary conceptual model is based on the gathered desk-based information (e.g. historical OS data and data sourced from the EA, Geoindex and Magic databases).

The conceptual site model is a representation of the hypothesised relationships between sources, pathways and receptors which allows the identification of potential pollutant linkages and whether these linkages have the potential to comprise significant harm and/or pollution of controlled waters in relation to the site. This model comprises three elements:

Source – the key pollutant hazards associated with the site

Receptor – the key targets at risk from the sources

Pathway – the means by which the contaminant can cause harm to the receptor

If all three elements are present, then a potential pollutant linkage exists, and this may require further assessment.

4.2 Potential Contamination Sources

The site was an undeveloped parcel of land until the 1970s when barns were constructed on site for use as a piggery. The barns are no longer in use and are in a poor state of repair and partially demolished. During the site walkover survey, piles of demolition rubble and broken fragments of asbestos sheeting were noted in the areas of the barns. Therefore, there is the potential for shallow soil contamination to be present beneath the site associated with this. Potential contaminants could include heavy metals and asbestos fibres.

A former smithy, haulage depot and joinery works are located in excess of 110m from the site boundary. However, these land uses can be discounted as a potential source of contamination to the site due to distance from the site (i.e. >110m away) and the presence of low permeability clayey soils which would restrict contaminant movement.

4.3 Receptors

The potential receptors considered to be at risk from soil and groundwater contamination associated with the site are summarised in Table 3 below:

Table 3 - Receptor Description

Receptor	Details
Human (On Site)	 Construction workers
	- Future site users
	- Site visitors
Human (Off Site)	- Adjacent site users
Controlled Waters	- Secondary Undifferentiated Aquifer
	 Secondary B Aquifer
	- River Derwent
Building/ construction materials	 Foundations and buried services

4.4 Pathways

The potential exposure pathways linking contamination with the receptors identified above are summarised in Table 4 below:

Table 4 - Exposure Pathways Summary

Receptor	Details of Exposure Pathway
Human (on-site)	 Direct ingestion of contaminated soil/groundwater Dermal contact with soil/groundwater Inhalation of gases and vapours
Human (off-site)	 Inhalation of fibres and particulates Inhalation of migrating gases and vapours
Controlled waters	 Vertical and lateral migration of dissolved phase contaminants via preferential pathways to groundwater aquifer. Lateral migration and surface water run-off to pond.
Building/construction	 Buried materials/services - Contact with contaminated soil and/or groundwater

4.5 Potential Pollution Linkages

4.5.1 Human Health

The development comprises the construction of a new residential development including associated areas of soft landscaping to be used as private gardens. This is considered to be a sensitive end use.

The presence of buildings and hardstanding would eliminate the risk of exposure, via the dermal contact and ingestion pathways to future site users to any ground contamination that may remain following development.

There could be a potential risk of exposure to any ground contamination that remains following redevelopment in the proposed areas of soft landscaping (i.e. gardens), to future site users, via all possible exposure pathways.

Any ground gases (i.e. methane and carbon dioxide) and vapours that are present within the soils beneath the site could potentially ingress into the buildings through preferential pathways (e.g. service entry points). Therefore, there would be a risk of exposure via inhalation to future site users.

There is the potential for construction workers and adjacent land users to be exposed to soil and groundwater contamination during site redevelopment. However, the use of appropriate PPE and the adoption of suitable Health and Safety methods will help to reduce the risks posed to human health during this work.

4.5.2 Controlled Waters

The site is directly underlain by the Skipwith Sand Member deposits which comprise clayey sands. It is considered that the superficial deposits will act as a low permeability barrier, preventing the migration of any contaminants to or from the site. The underlying bedrock aquifer is designated as a Secondary B Aquifer.

The site is not located within a Source Protection Zone and there are no abstraction licences held nearby.

The River Derwent is located 600m from the site boundary. It is considered that the river lies at a sufficient distance from the site to be unaffected from any potential contamination.

Overall, the risk to controlled waters is deemed to be low.

4.5.3 Building/ Construction Materials/Buried Services

The presence of any soil and groundwater contaminants beneath the site could potentially impact on construction materials for the new development, such as below ground structures and services. Concrete foundations are particularly sensitive to aggressive ground conditions, i.e. sulphate attack.

If ground gases and vapour are present in the soil beneath the site, then there would be the potential risk of ingress into the new properties which could present a risk of explosion.

4.6 Preliminary Hazard Assessment

A preliminary hazard assessment is presented in Table 5. The preliminary hazard assessment is a qualitative assessment of the risks posed by each potential pollutant linkage described above and is used to identify the requirement for additional work (e.g. intrusive ground investigation).

Table 5 – Preliminary Hazard Assessment

Source 1	Pathway	Receptor	Likelihood	Effect	Risk	Assessment
Contaminated soil	Ingestion (via soil dust), inhalation (via soil dust and vapours), ingestion through dirty hands, dermal contact with soil/water.	Future site users Adjacent site users Construction workers	2	3	Moderate	Contamination source identified.
Contaminated soil groundwater	Direct contact	Buildings/ services	2	3	Moderate	Contamination source identified. Proposed building foundations in direct contact with potentially contaminated soils.
Contaminated groundwater	Downward or lateral migration	Principal Aquifer Fishpond Abstractions	1	3	Low	Low permeability superficial deposits will limit the migration of contaminants to offsite controlled water receptors.
Ground gas / vapours	Inhalation, ingress into buildings	Buildings / services Future site users Adjacent site users Construction workers	1	4	Low	No ground gas source identified. Site located within a low probability area for radon.

Using Risk Matrix (Table 6) Degree of Risk (R) = Likelihood (L) x Effect (E)

Table 6 - Risk Matrix, Degree of Risk (R) = Likelihood (L) x Effect (E)

Likelihood	Description	Probability	Effect (E)	Description		
5	Almost certain	>70%				
4	Probable	50-70%	4	Severe		
3	Likely	30-50%	3	Medium		
2	Unlikely	10-30%	2	Mild		
1	Negligible	<10%	1	Minor		
Risk (R)	Risk Level	Action				
1-5	Low	None required				
6-10	Moderate	Further assessment via Phase 2 intrusive ground				
		investigation.				
>10	High	Further assessment via Phase 2 intrusive ground				
		investigation.				

5 Conclusions and Recommendations

The preliminary environmental site assessment indicates that the site can be classified as moderate risk in terms of contamination and the risks to the identified receptors (e.g. human health, controlled waters, buildings) following redevelopment is considered to be moderate.

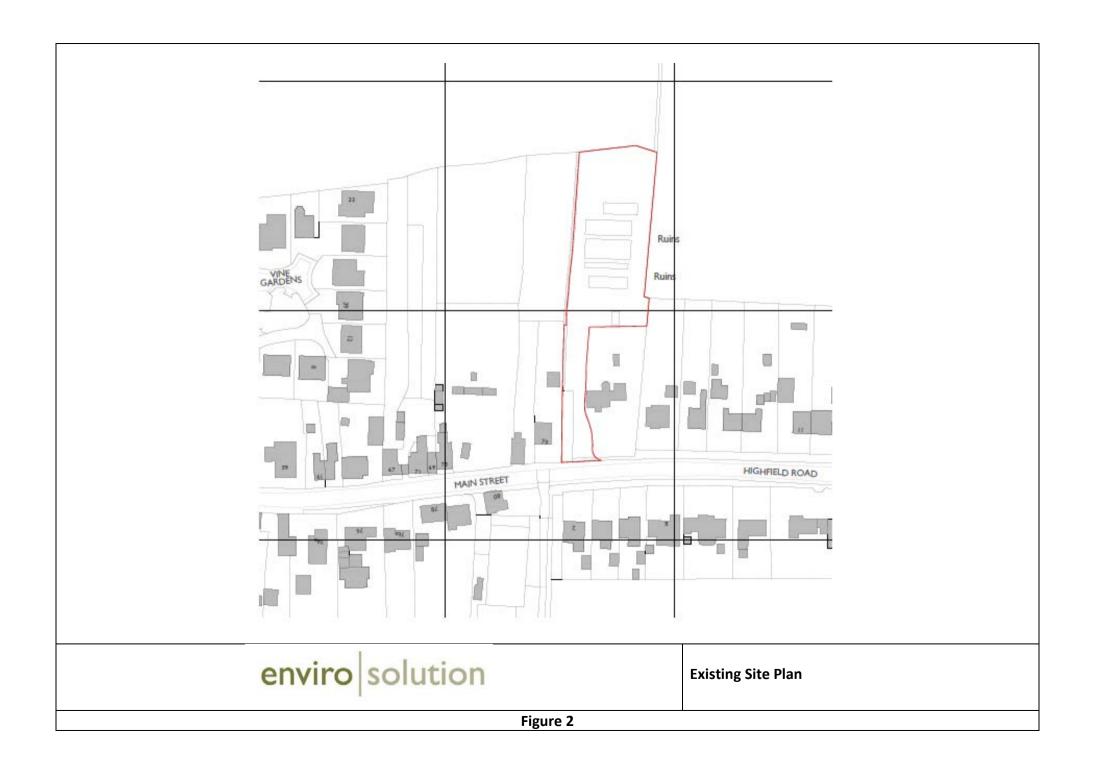
This classification is due to the present of demolition rubble and broken the asbestos roofing on the ground surface which may have introduced contaminants into the shallow soils beneath the site. Potential contaminants include heavy metals and asbestos.

It is recommended a Phase 2 intrusive ground investigation is undertaken prior to site redevelopment to obtain additional information on the ground conditions and the contamination status. The investigation should be carried out by qualified and competent persons. The scope of works for the investigation will need to be submitted and approved by the local authority prior to the commencement of the Phase 2 intrusive works.

APPENDICES

Appendix A – Site Location and Site Plan







Appendix B – Site Photographs



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Access road looking north



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Domestic garden to the south of the site



Southern boundary looking north



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View of site looking northeast



Open field to the east



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View of site looking south showing dilapidated barns



Broken breeze block barns



enviro solution

Pig pens looking west



Suspected broken asbestos roof sheeting



enviro solution

Brick rubble



Asbestos sheeting on the ground



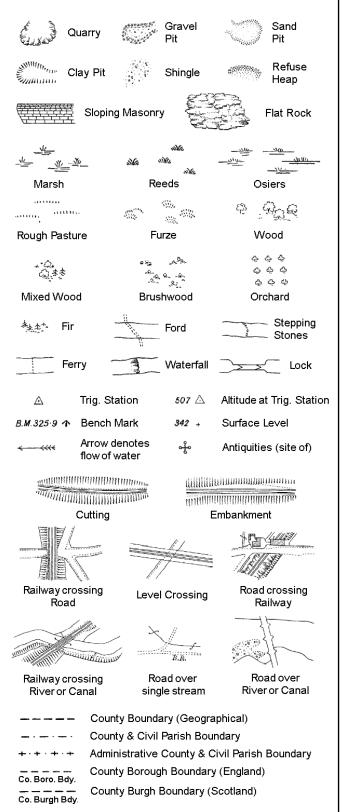
enviro solution

Concrete slabs and asbestos sheeting

Appendix C - Historical Maps

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough

Well

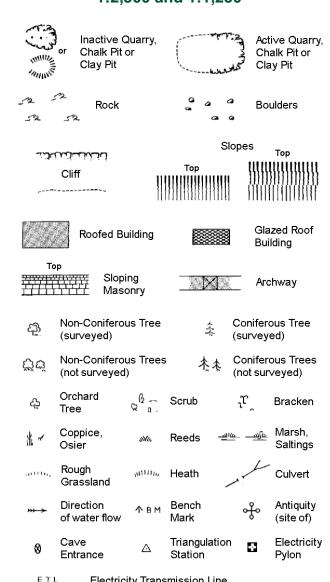
S.P

T.C.B

Sl.

 T_T

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250

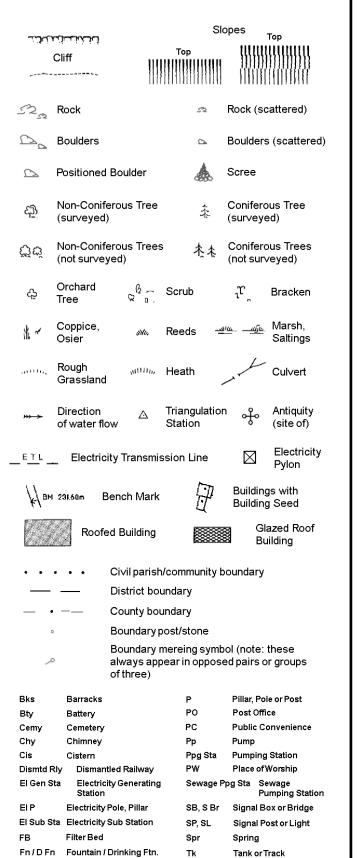


Electricity Transmission Line				
	County Boundary (Geographical)			
	County & Civil Parish Boundary			
	Civil Parish Boundary			
• •	Admin. County or County Bor. Boundary			
L B Bdy	London Borough Boundary			
44,00	Symbol marking point where houndary			

,			
вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

mereing changes

1:1,250



Gas Valve Compound

Mile Post or Mile Stone

Gas Governer

Guide Post

Manhole

GVC

Tr

Wd Pp

Wks

Trough

Wind Pump Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

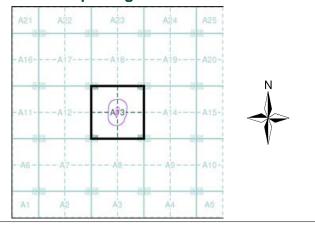
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1891	2
Yorkshire	1:2,500	1909	3
Ordnance Survey Plan	1:2,500	1974	4
Additional SIMs	1:2,500	1980 - 1993	5
Additional SIMs	1:2,500	1990	6
Large-Scale National Grid Data	1:2,500	1995	7

Historical Map - Segment A13



Order Details

Order Number: 293729140_1_1 ES070422 Customer Ref: National Grid Reference: 471770, 436410 Slice:

Site Area (Ha): Search Buffer (m):

Site Details

1, Highfield Road, Bubwith, SELBY, YO8 6LY

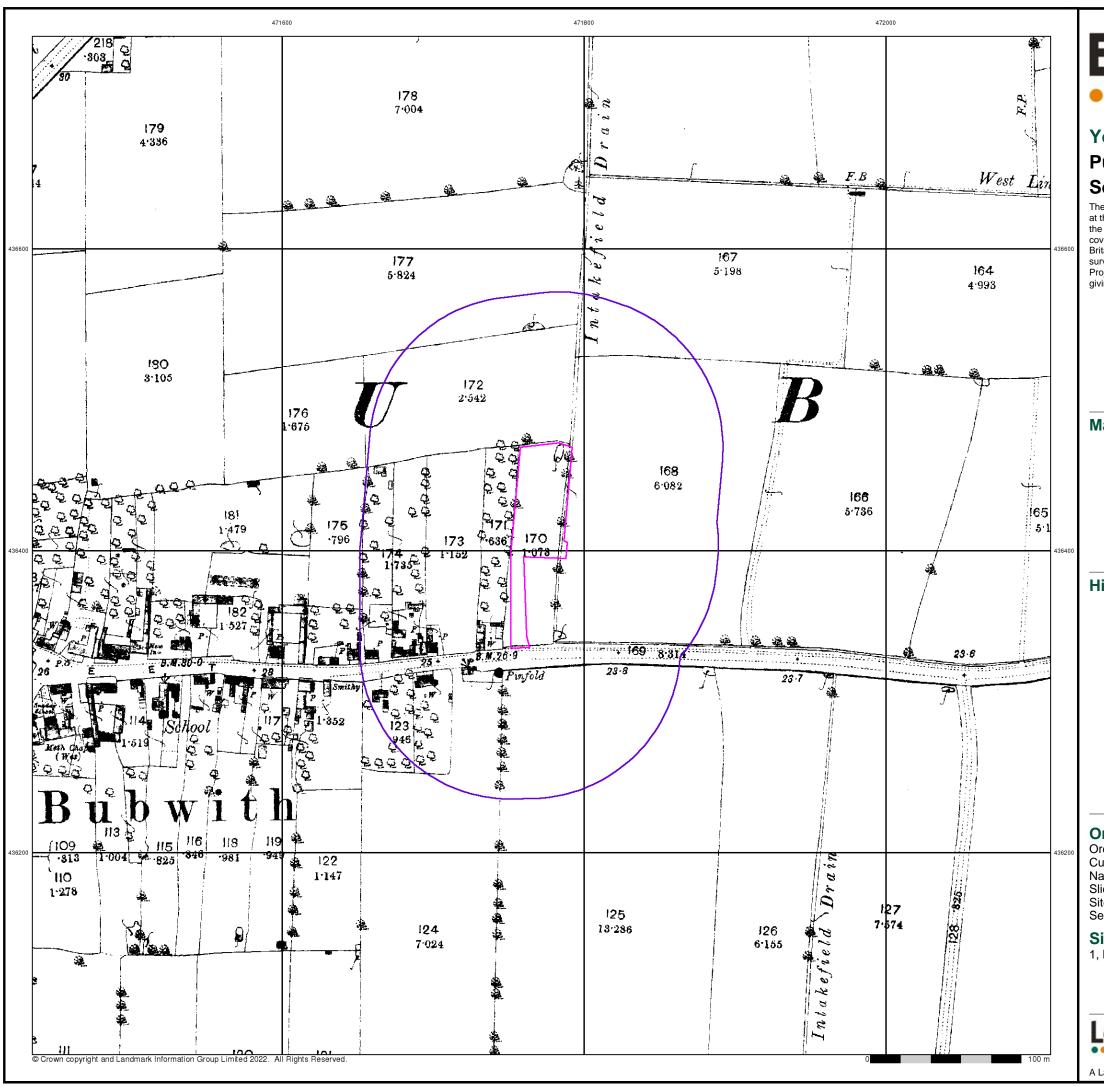
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Page 1 of 7



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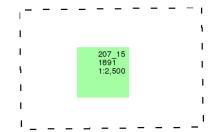
Yorkshire

Published 1891

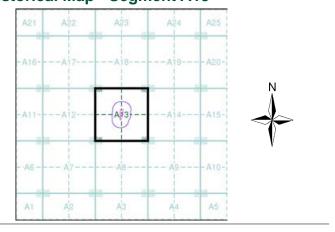
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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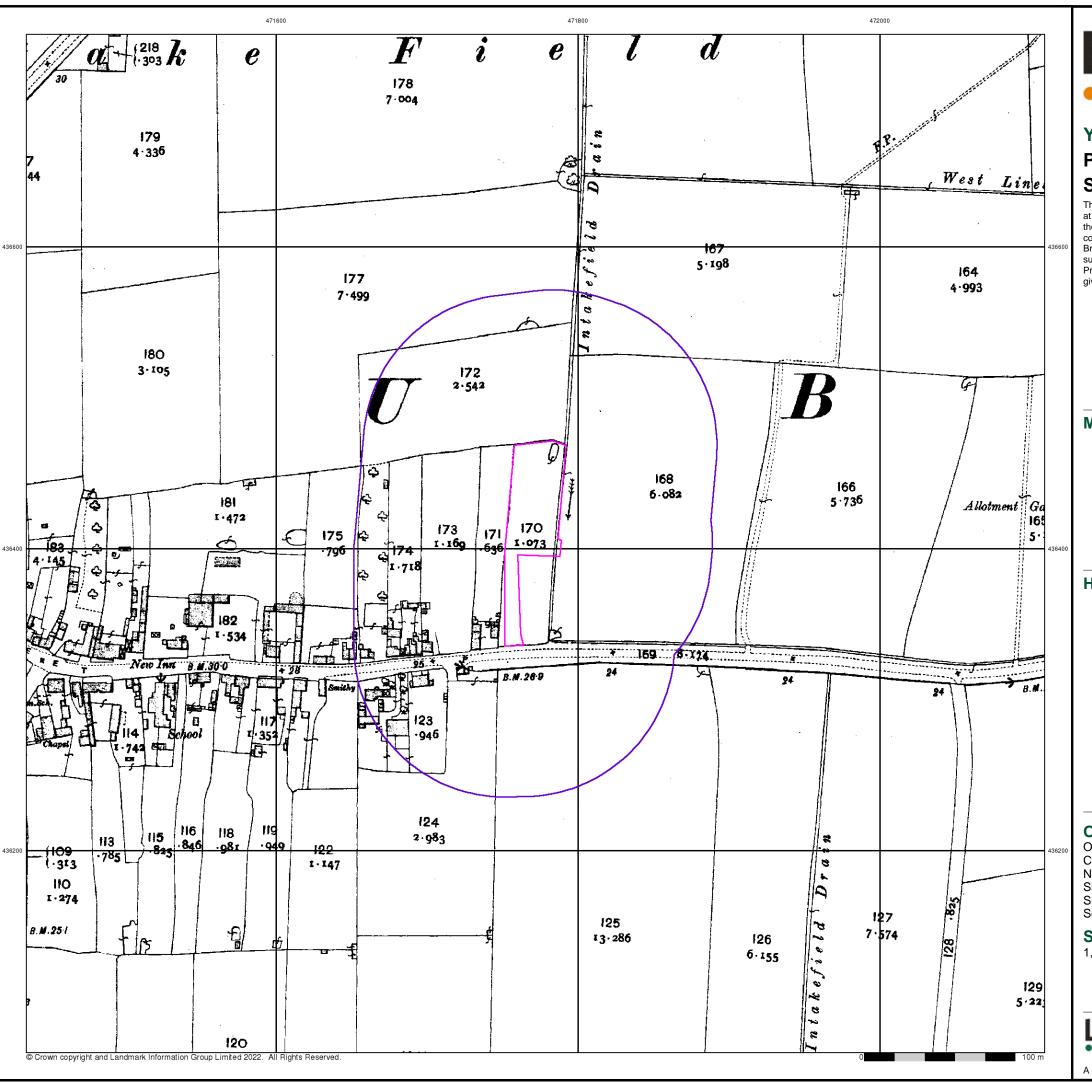
Site Area (Ha): Search Buffer (m): 0.32 100

Site Details

1, Highfield Road, Bubwith, SELBY, YO8 6LY

Landmark

0844 844 9952



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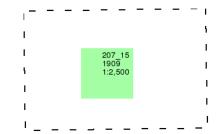
Yorkshire

Published 1909

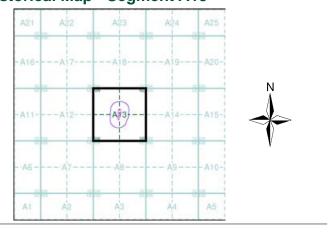
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 293729140_1_1 Customer Ref: ES070422 National Grid Reference: 471770, 436410

Slice:

Site Area (Ha): 0.32 Search Buffer (m): 100

Site Details

1, Highfield Road, Bubwith, SELBY, YO8 6LY

Landmark

0844 844 9952



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Ordnance Survey Plan

Published 1974

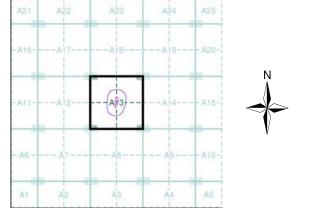
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

293729140_1_1 Customer Ref: ES070422 National Grid Reference: 471770, 436410

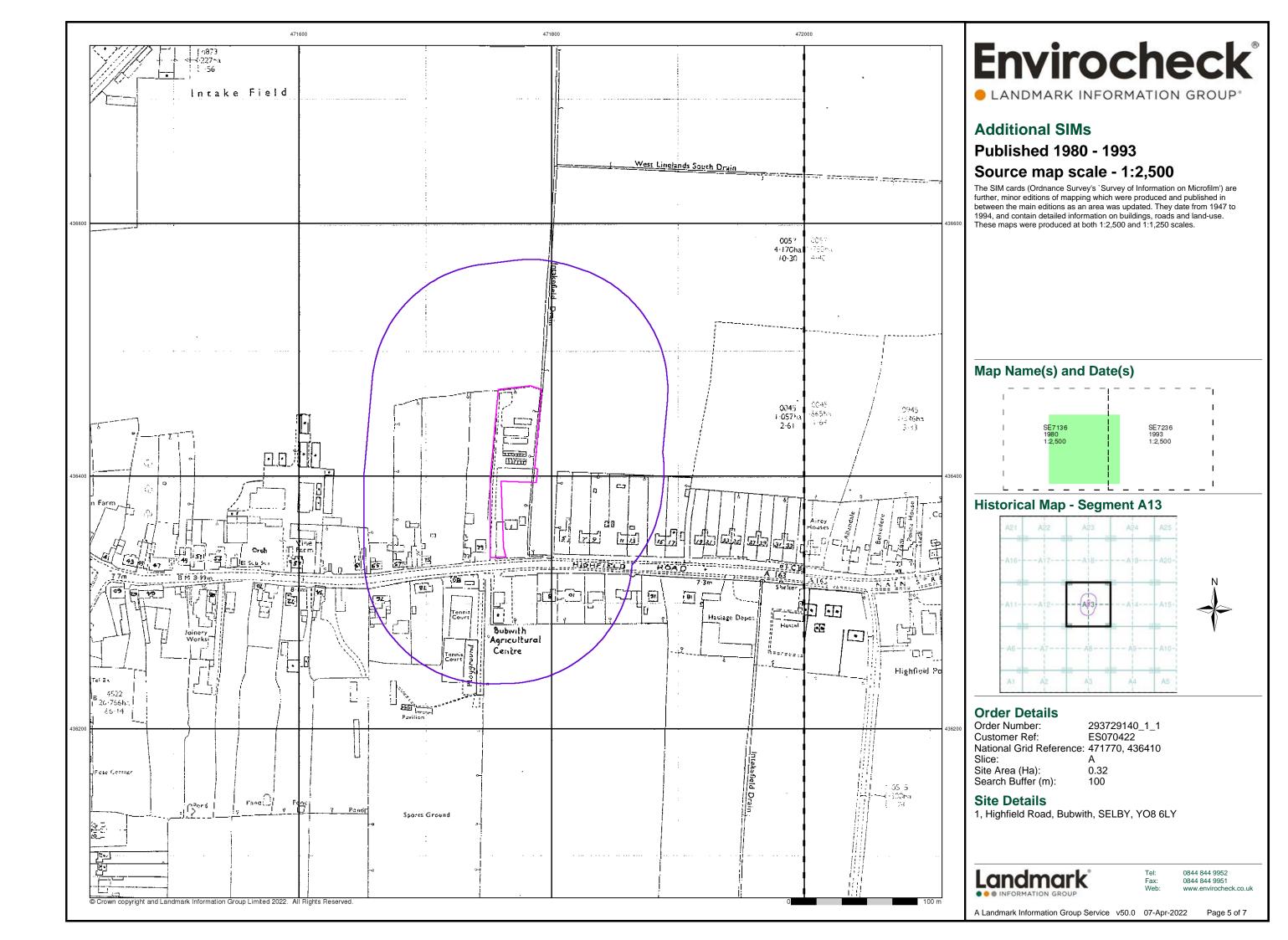
Site Area (Ha): Search Buffer (m): 0.32 100

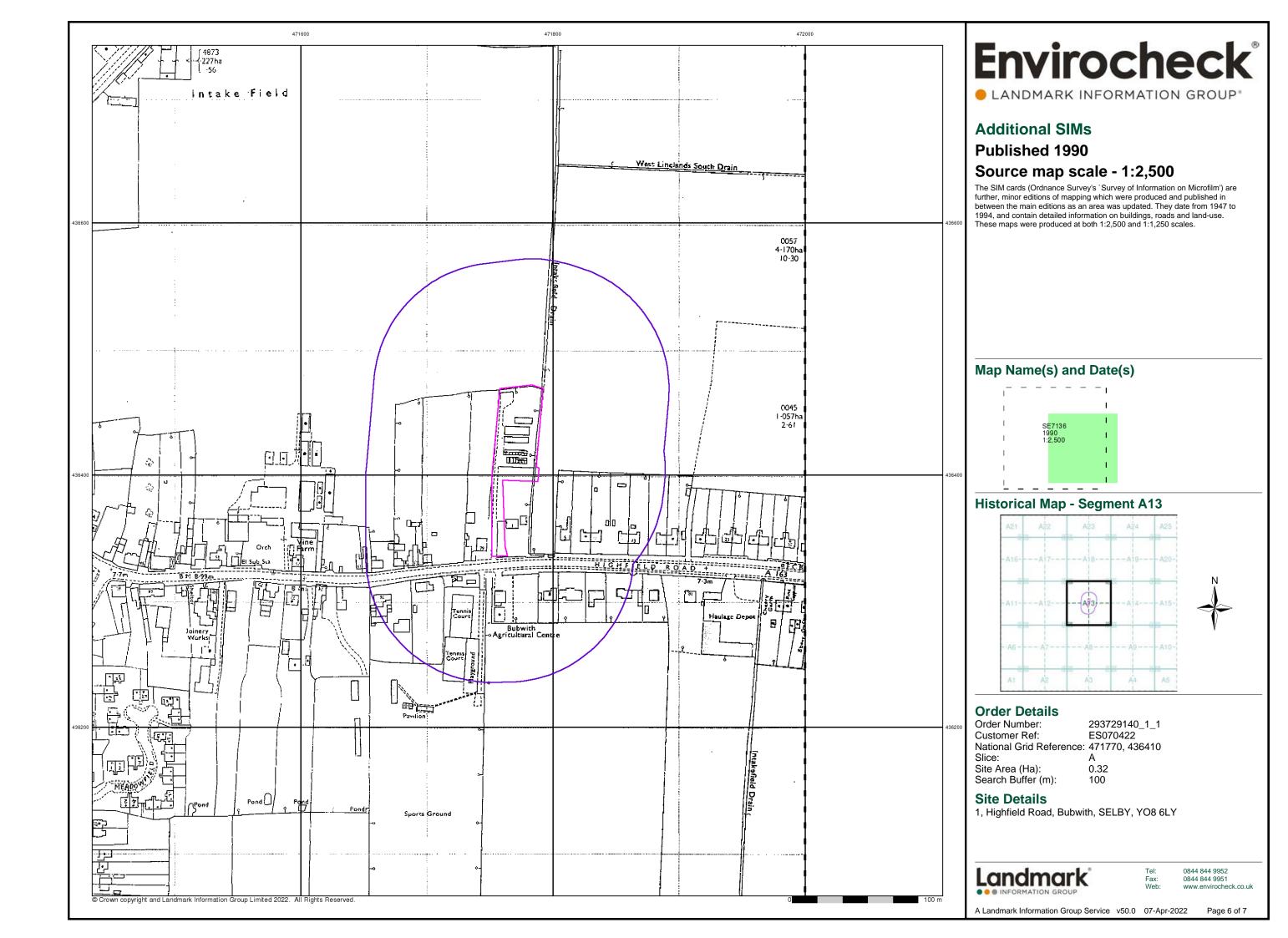
Site Details

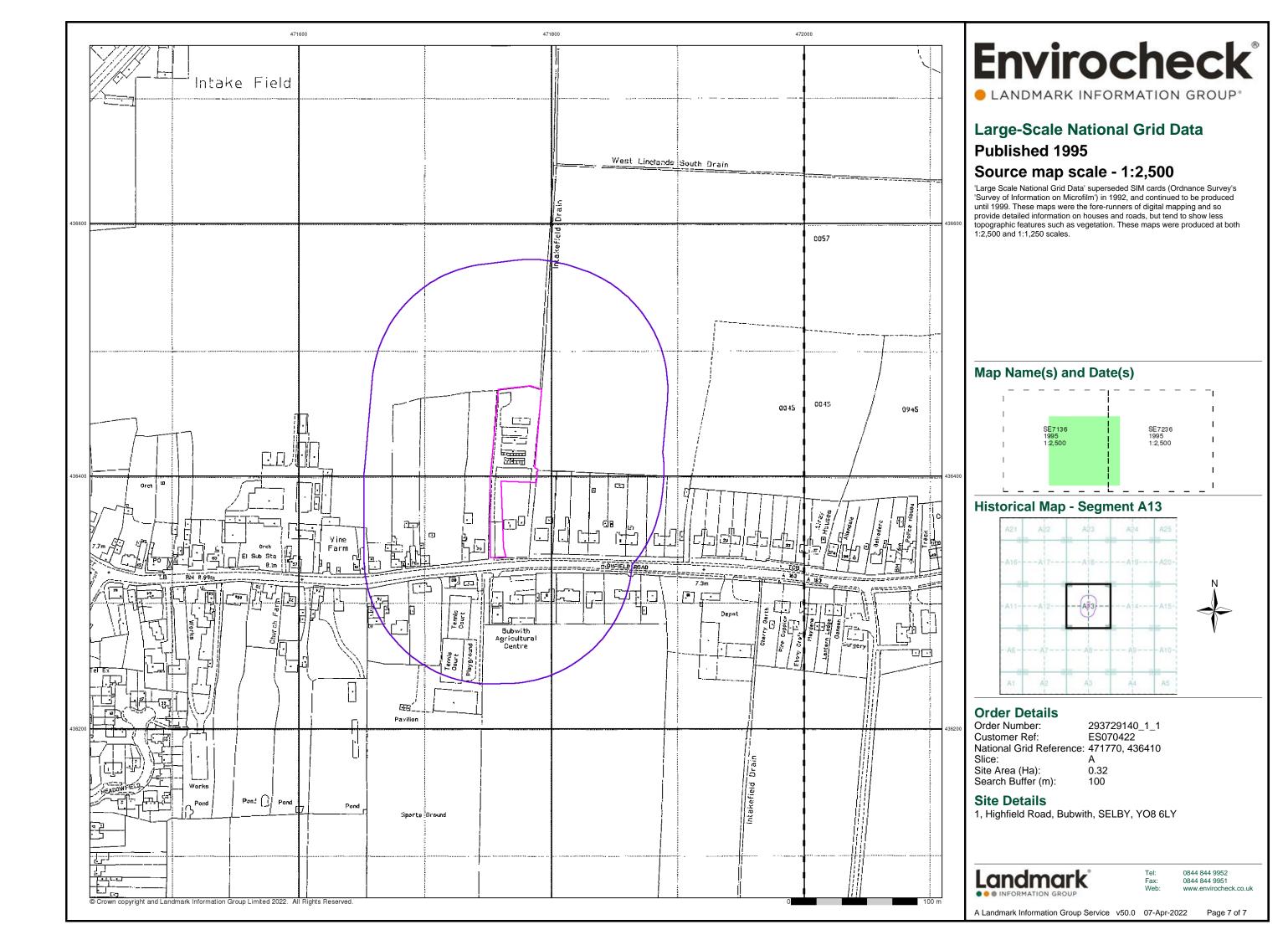
1, Highfield Road, Bubwith, SELBY, YO8 6LY



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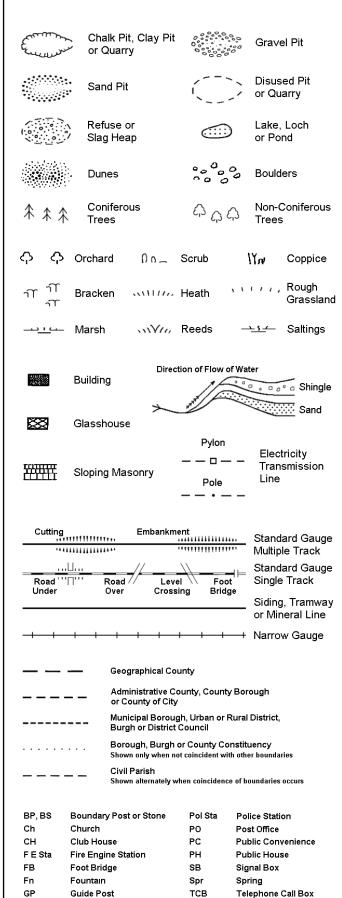


Historical Mapping Legends

Ordnance Survey County Series 1:10,560 Other Gravel Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Site of Antiquities Bench Mark Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Sunken Road Raised Road Railway over Road over Ri∨er Railway Railway over Level Crossing Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Co. Burgh Bdy. Rural District Boundary RD. Bdy.

Civil Parish Boundary

Ordnance Survey	Plan	1:10,000
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Mile Post

TCP

Telephone Call Post

1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle	Mud	Mud
Sand	Sand		Sand Pit
********	Slopes		Top of cliff
	General detail		Underground detail
	- O∨erhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)	• • • • • •	Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
۵ ⁰ **	Area of wooded vegetation	۵ ^۵	Non-coniferous trees
۵ ۵	Non-coniferous trees (scattered)	**	Coniferous trees
* *	Coniferous trees (scattered)	Ö	Positioned tree
ф ф ф ф	Orchard	* *	Coppice or Osiers
alle,	Rough Grassland	www.	Heath
On_	Scrub	7 <u>₩</u> ۲	Marsh, Salt Marsh or Reeds
6	Water feature	←	Flow arrows
MHW(S)	Mean high water (springs)	MLW(S)	Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
← BM 123.45 m	Bench mark (where shown)	Δ	Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)	\boxtimes	Pylon, flare stac or lighting tower
•‡•	Site of (antiquity)		Glasshouse
	General Building		Important

Building

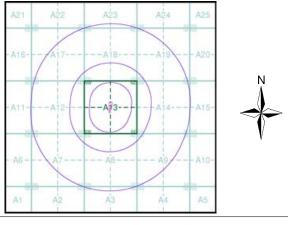
Envirocheck®

LANDMARK INFORMATION GROUP

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1854	2
Yorkshire	1:10,560	1891 - 1892	3
Yorkshire	1:10,560	1910	4
Yorkshire	1:10,560	1910	5
Yorkshire	1:10,560	1952 - 1953	6
Ordnance Survey Plan	1:10,000	1958	7
Ordnance Survey Plan	1:10,000	1977	8
10K Raster Mapping	1:10,000	1999	9
Street View	Variable		10

Historical Map - Slice A



Order Details

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0.32 Search Buffer (m): 1000

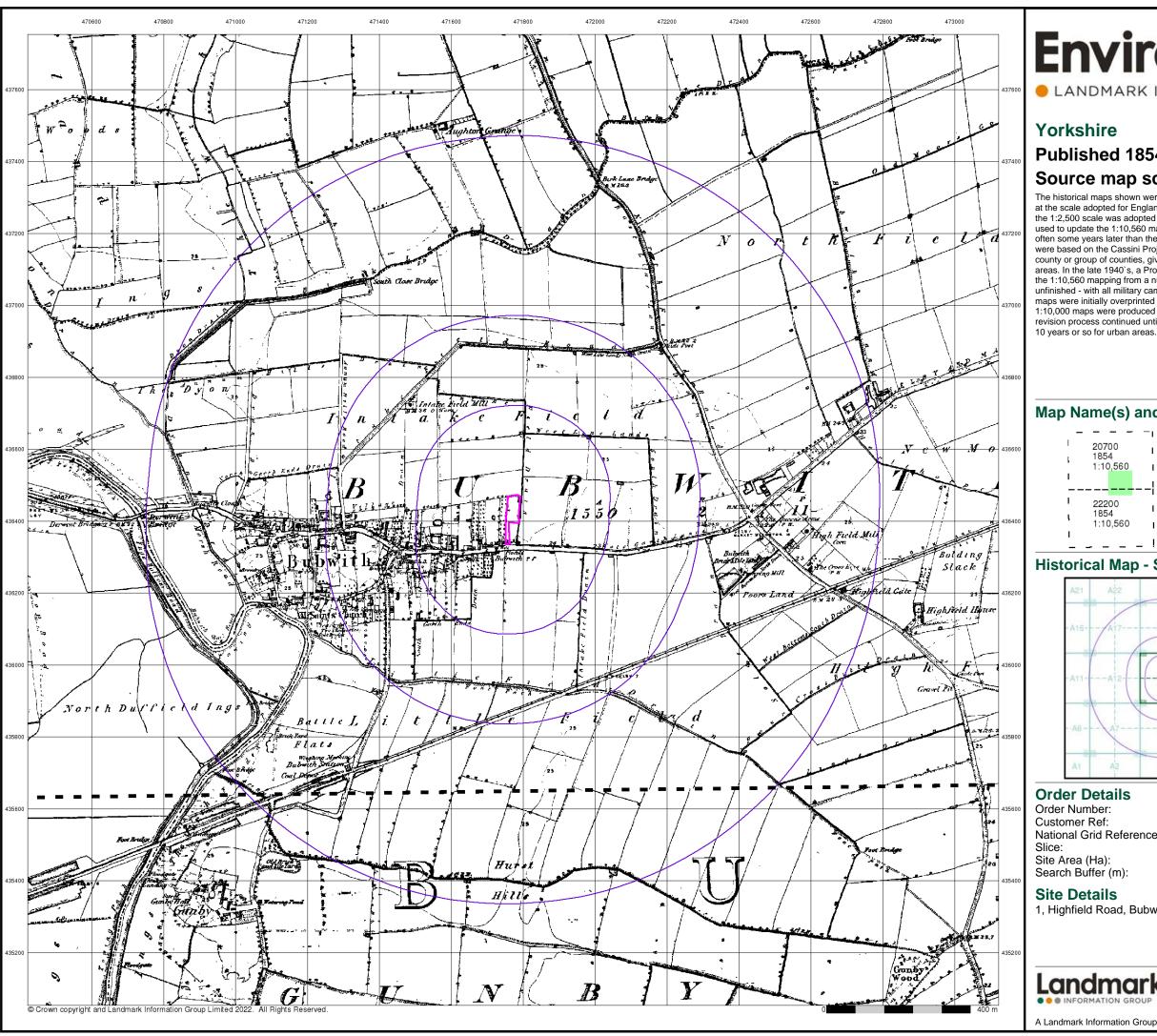
Site Details

1, Highfield Road, Bubwith, SELBY, YO8 6LY



0844 844 9952 0844 844 9951

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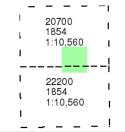
LANDMARK INFORMATION GROUP*

Yorkshire

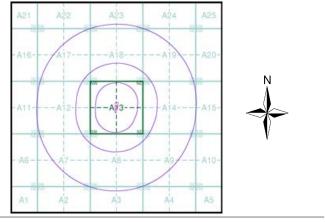
Published 1854 Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 293729140_1_1 Customer Ref: ES070422 National Grid Reference: 471770, 436410

Slice:

Site Area (Ha): 0.32 Search Buffer (m): 1000

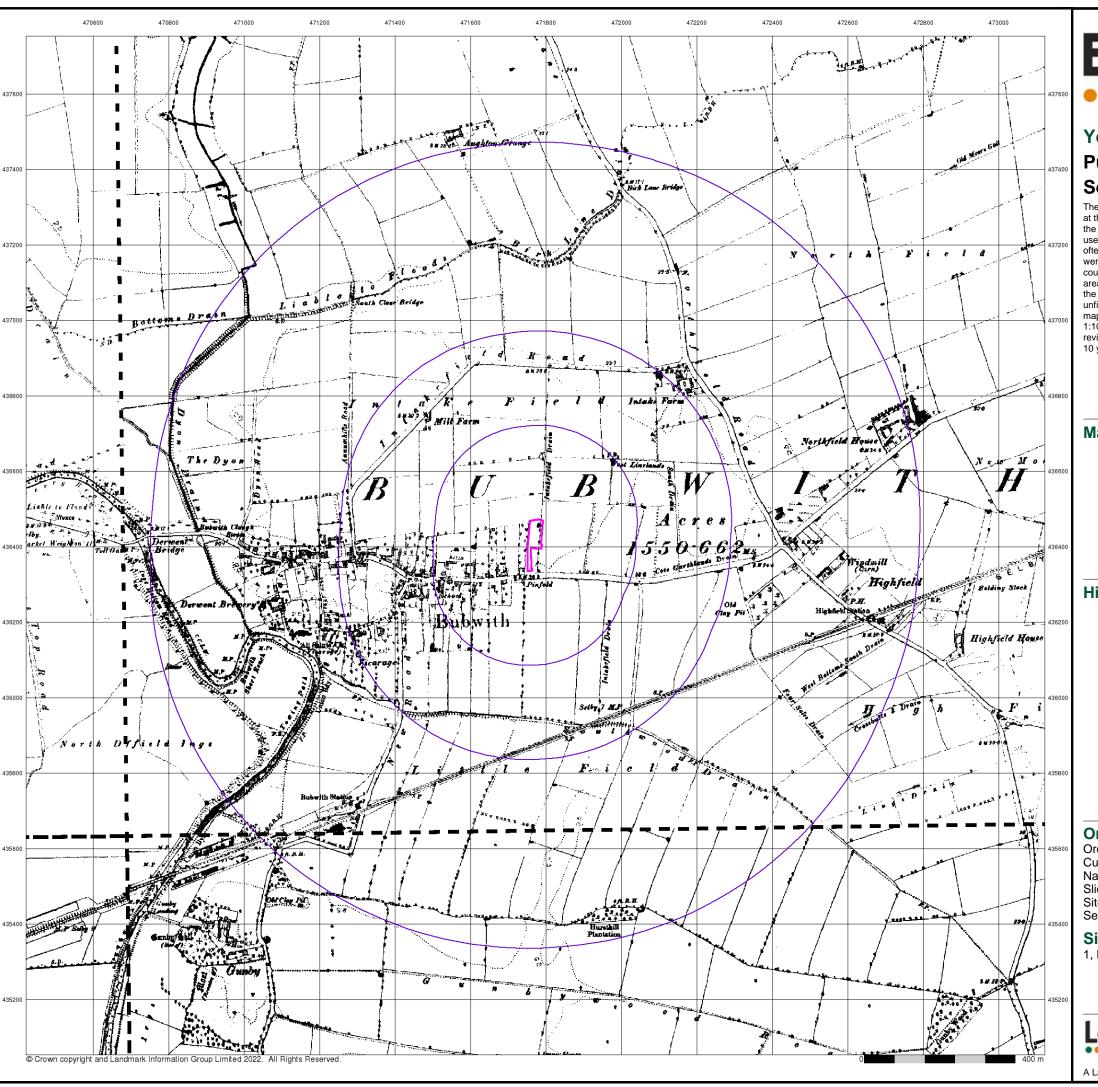
Site Details

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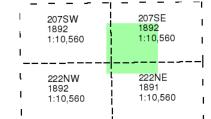
LANDMARK INFORMATION GROUP*

Yorkshire

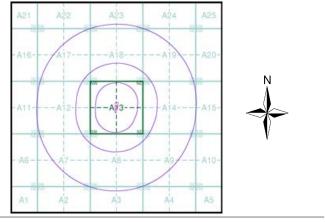
Published 1891 - 1892 Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 293729140_1_1 Customer Ref: ES070422 National Grid Reference: 471770, 436410 Slice:

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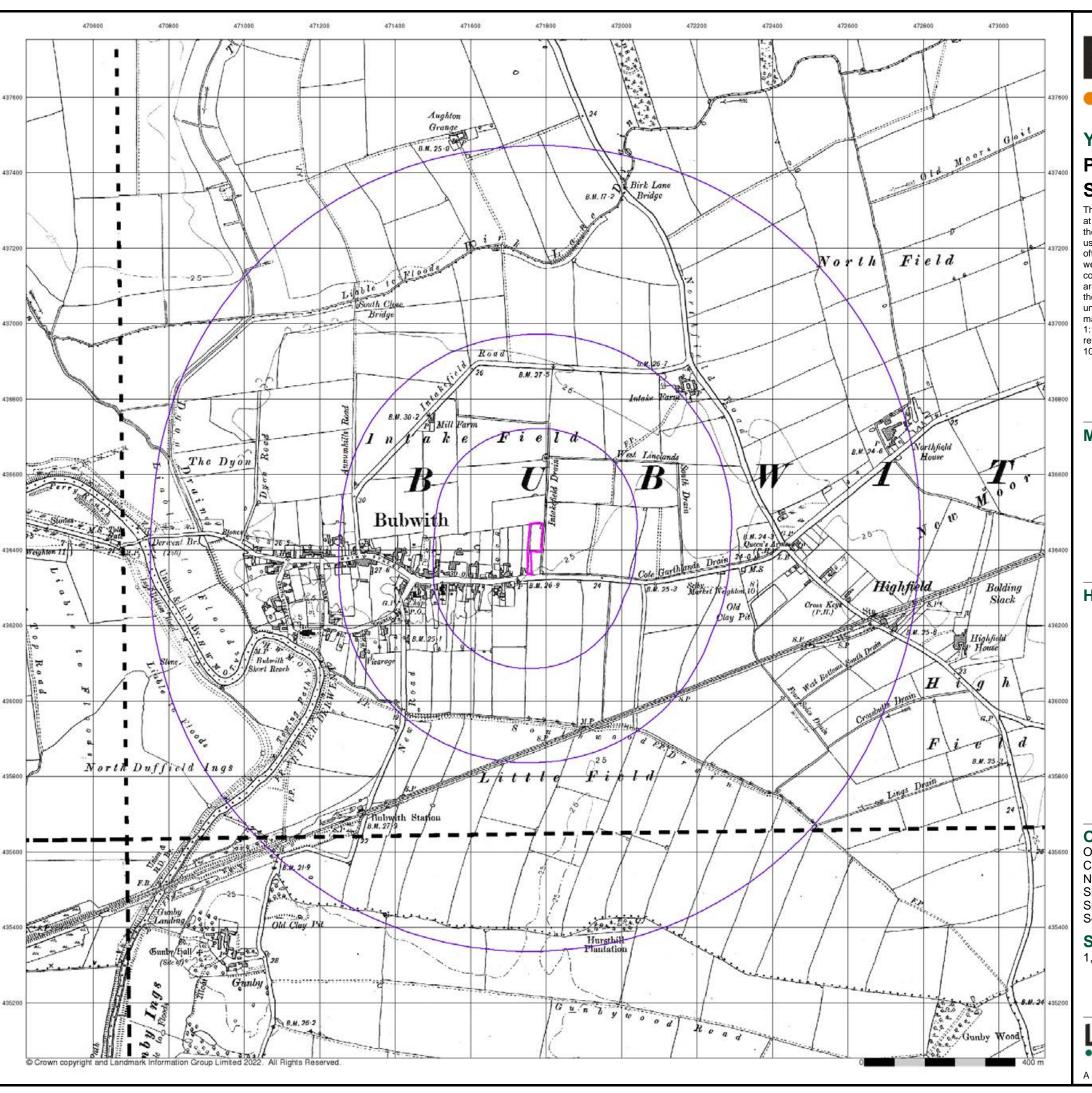
Site Details

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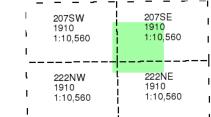
LANDMARK INFORMATION GROUP*

Yorkshire

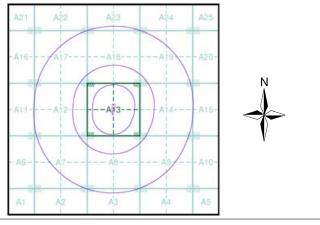
Published 1910 Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban arreas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 293729140_1_1
Customer Ref: ES070422
National Grid Reference: 471770, 436410

Slice:

Site Area (Ha): 0.32 Search Buffer (m): 1000

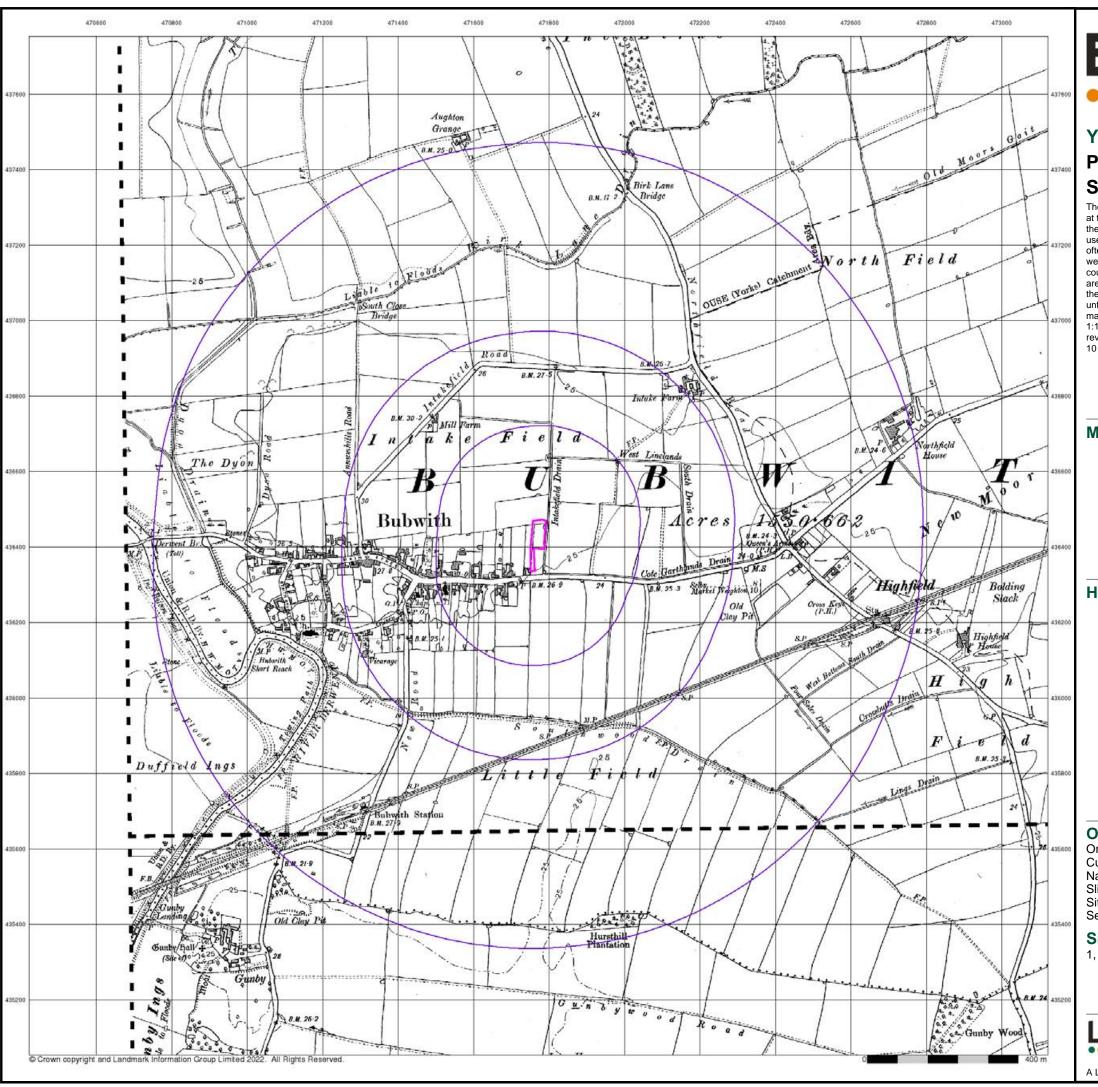
Site Details

1, Highfield Road, Bubwith, SELBY, YO8 6LY



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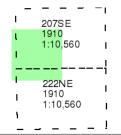
Yorkshire

Published 1910

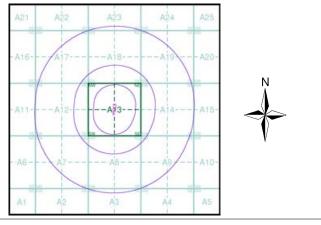
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 293729140_1_1
Customer Ref: ES070422
National Grid Reference: 471770, 436410

Slice:

Site Area (Ha): 0.32 Search Buffer (m): 1000

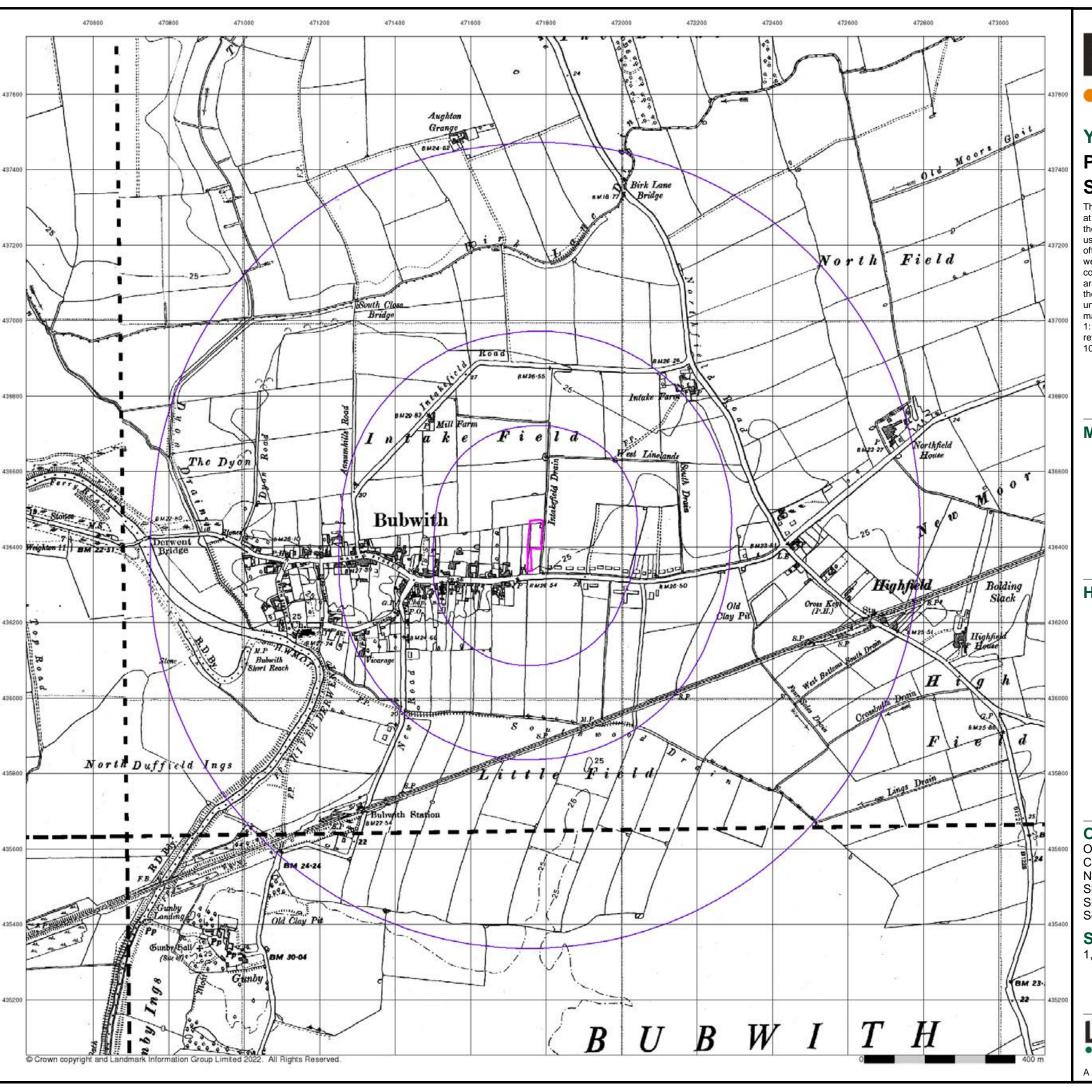
Site Details

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Yorkshire

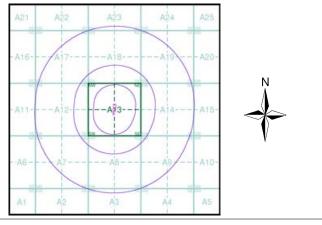
Published 1952 - 1953 Source map scale - 1:10,560

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Map Name(s) and Date(s)

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i	1953 1:10,560	1952 1:10,560	
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ι	222NW	222NE	
1	1952	1953 1:10,560	
	1:10,560	1.10,500	١
- 1		!	

Historical Map - Slice A



Order Details

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Customer Ref: ES070422
National Grid Reference: 471770, 436410

Slice:

Site Area (Ha): 0.32 Search Buffer (m): 1000

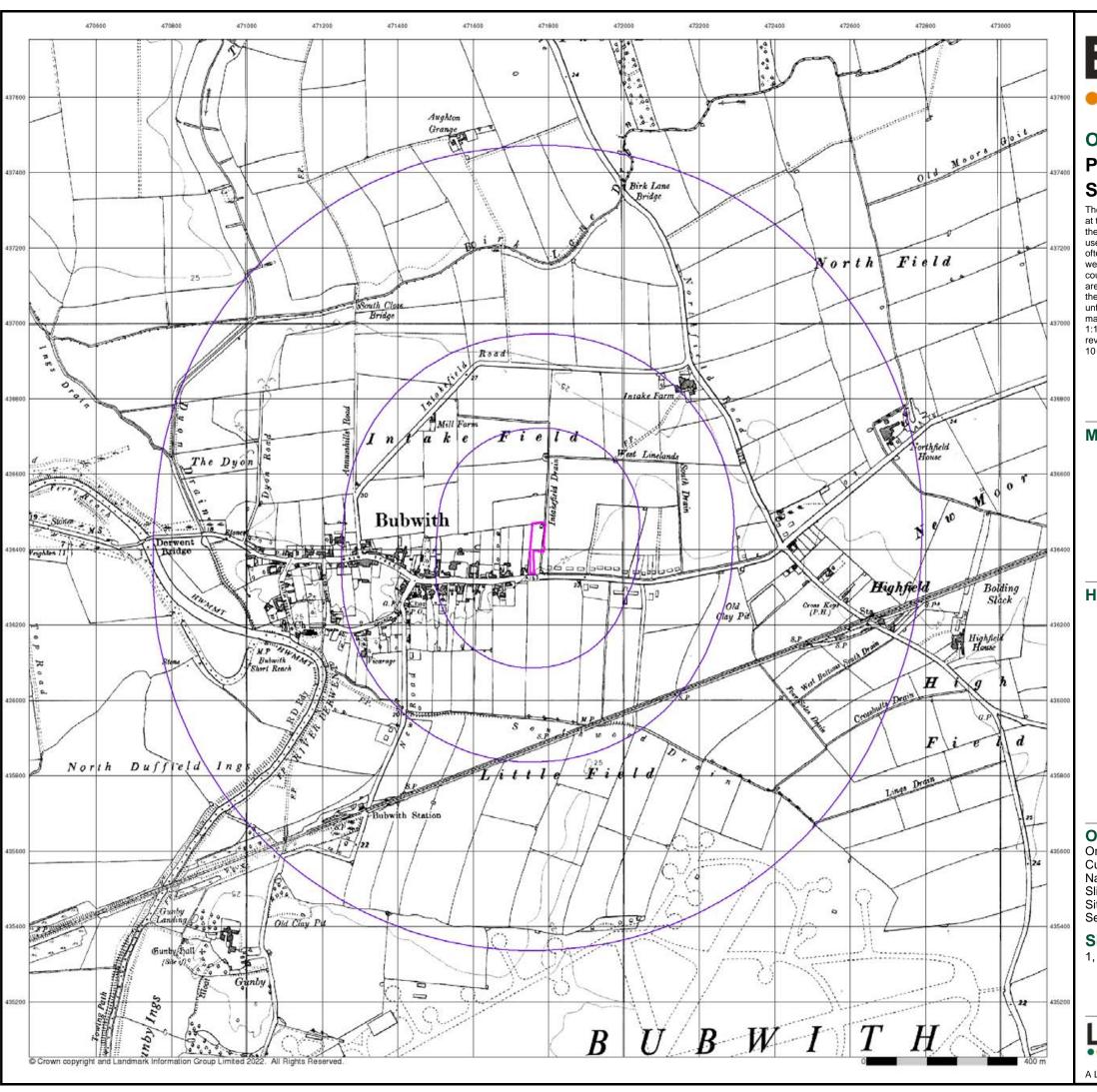
Site Details

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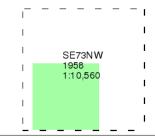


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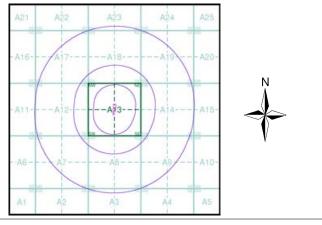
Ordnance Survey Plan Published 1958 Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

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Historical Map - Slice A



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Customer Ref: ES070422
National Grid Reference: 471770, 436410

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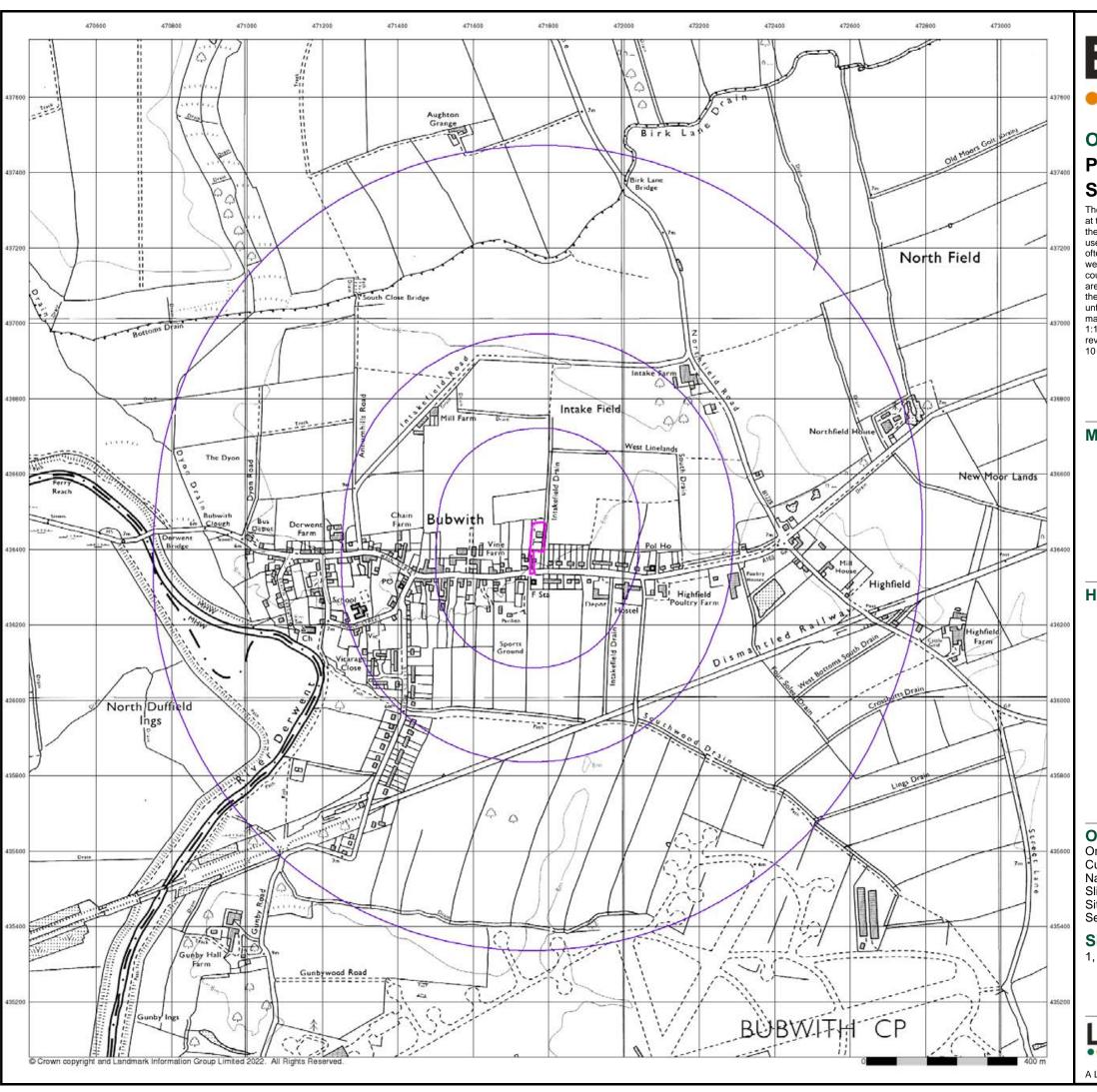
Site Details

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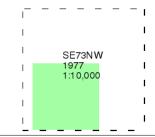


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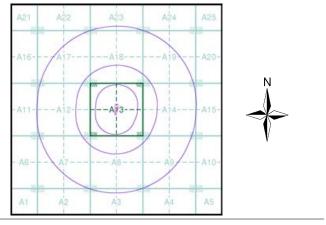
Ordnance Survey Plan Published 1977 Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Customer Ref: ES070422
National Grid Reference: 471770, 436410

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Site Area (Ha): 0.32 Search Buffer (m): 1000

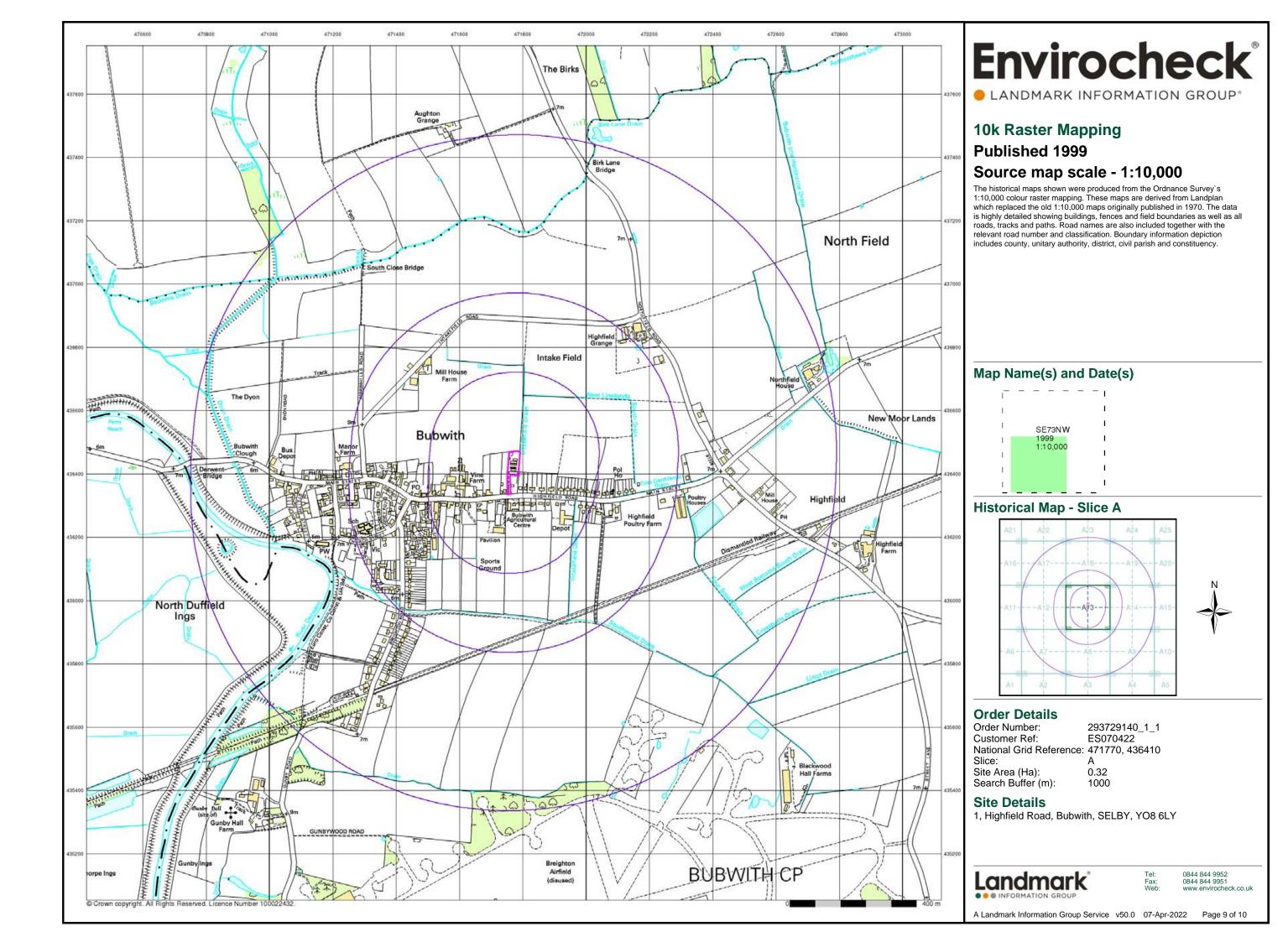
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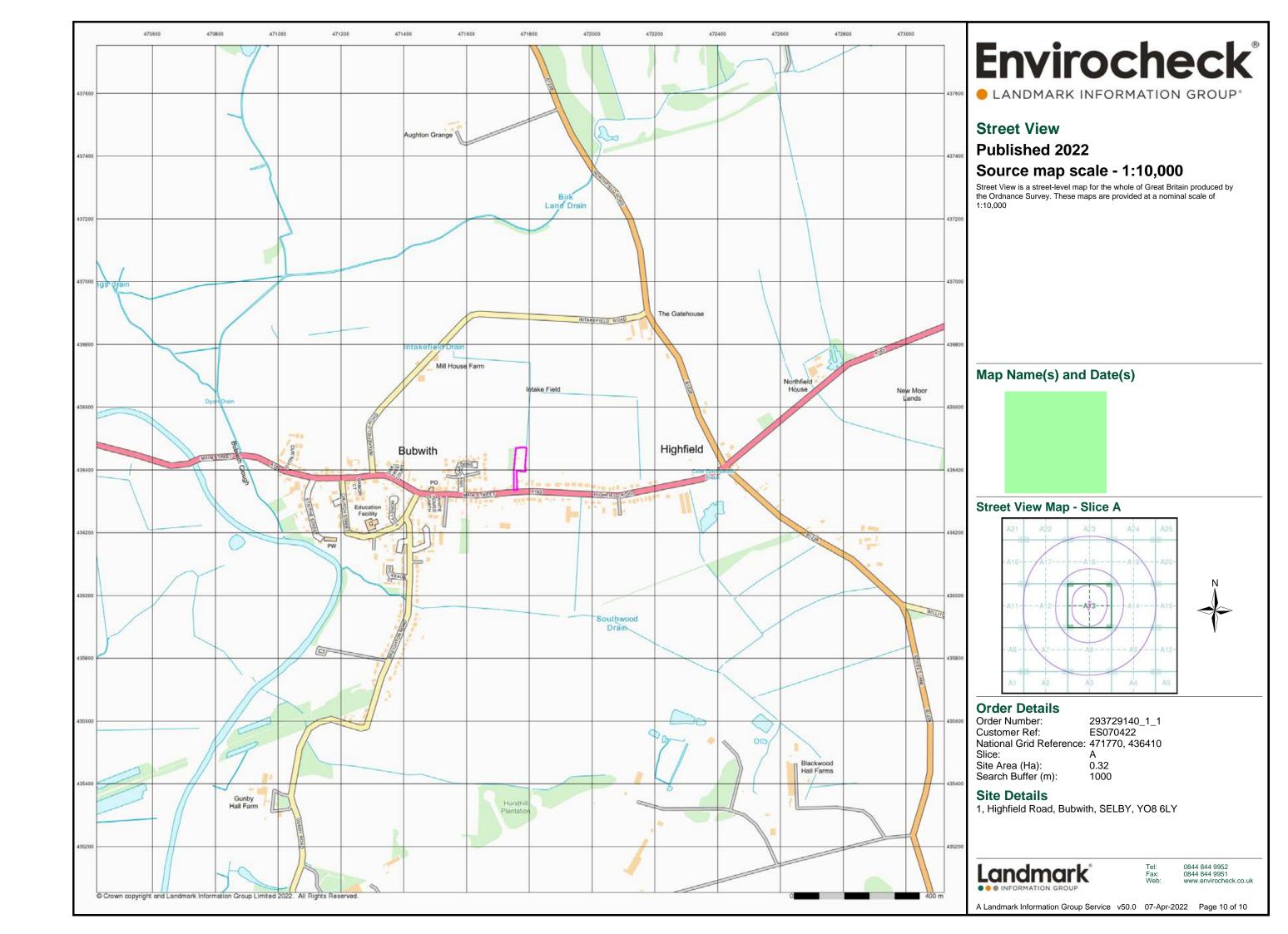
1, Highfield Road, Bubwith, SELBY, YO8 6LY



Tel: 0844 844 9952 Fax: 0844 844 9951 Web: www.envirocheck.co.uk

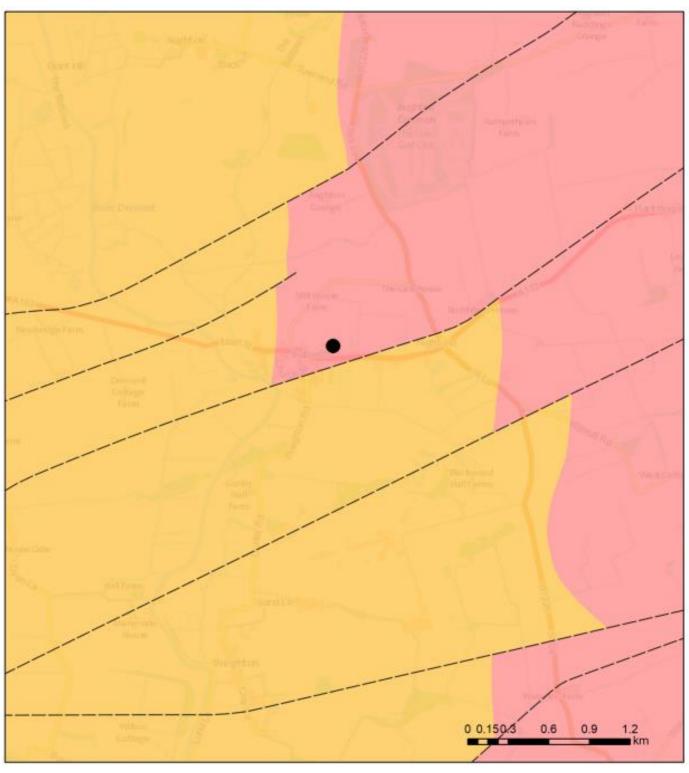
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Appendix D – Geological Maps

Bedrock Geology



Bedrock geology 1:50,000 scale

MERCIA MUDSTONE GROUP - MUDSTONE

SHERWOOD SANDSTONE GROUP - SANDSTONE

Linear features 1:50,000 scale

— Fault_Inf_Crossmark_on_downthrow_side

Superficial Geology



Superficial deposits 1:50,000 scale

LAWNS HOUSE FARM SAND MEMBER - SAND, SILTY

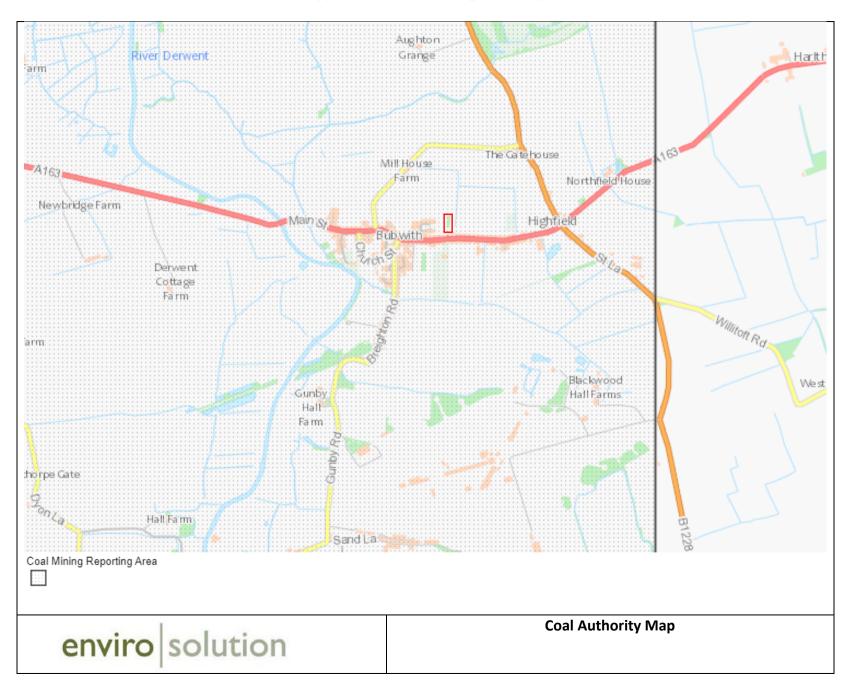
BIELBY SAND MEMBER - SAND, CLAYEY

ALLUVIUM - CLAY, PEAT AND SILT

BREIGHTON SAND FORMATION - SAND

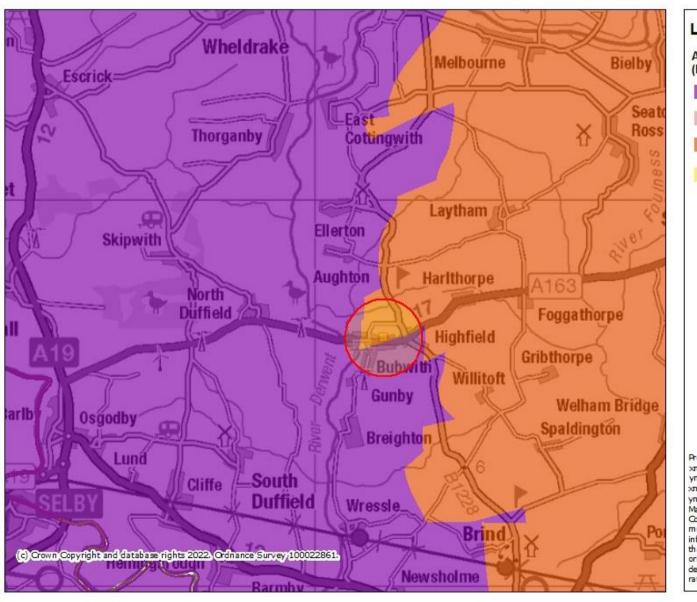
THORGANBY CLAY MEMBER - CLAY, SILTY

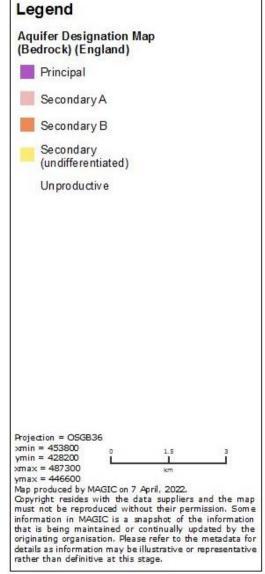
Appendix E – Coal Mining Summary





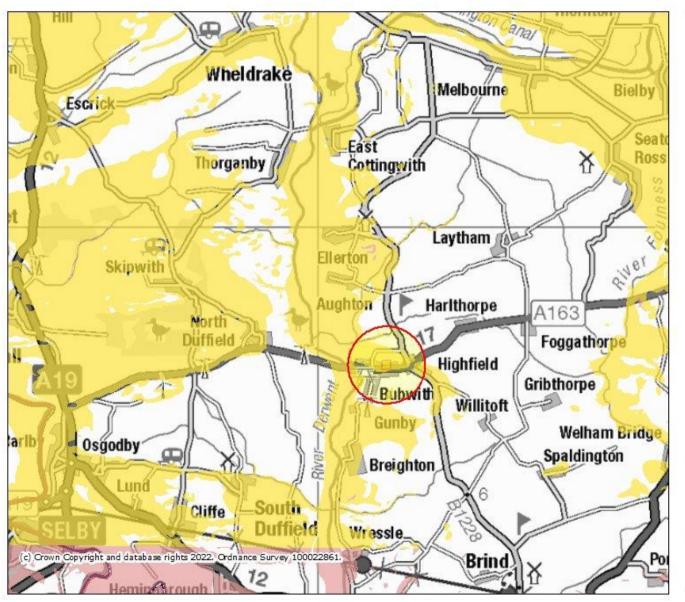
Bedrock Aquifer







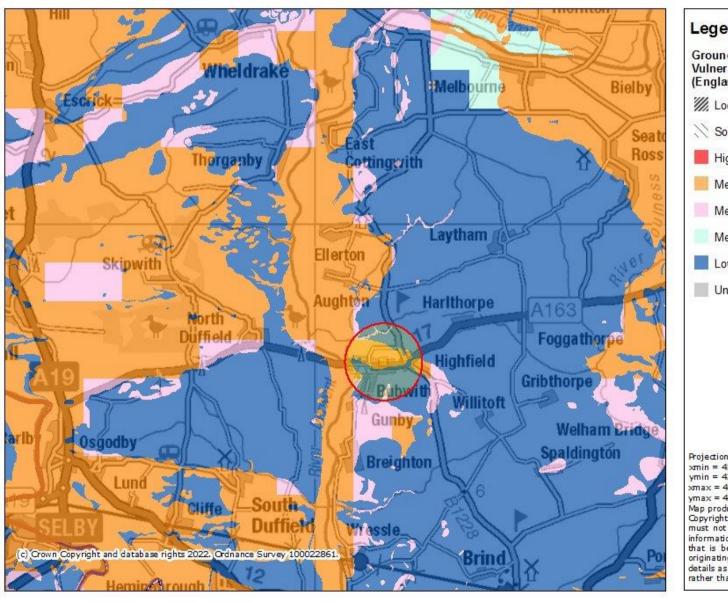
Superficial Aquifer

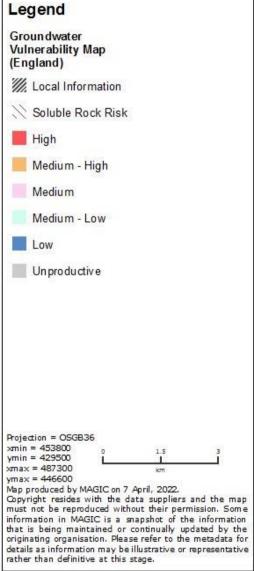




MAGIC

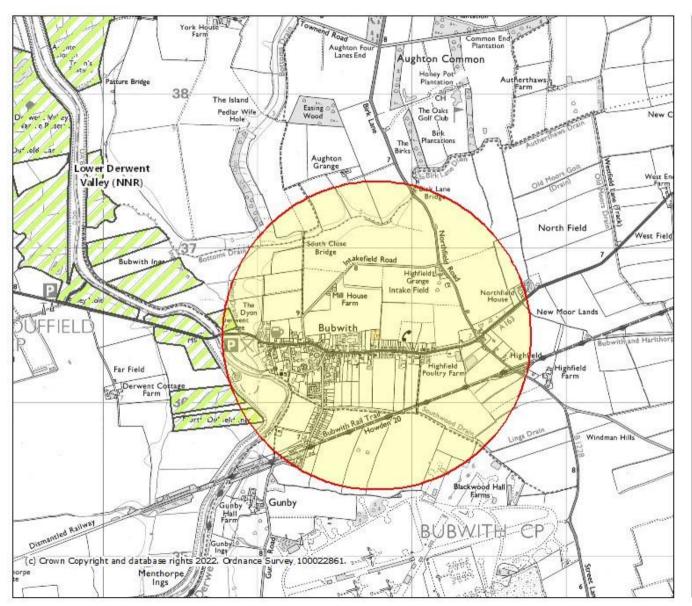
Groundwater Vulnerability

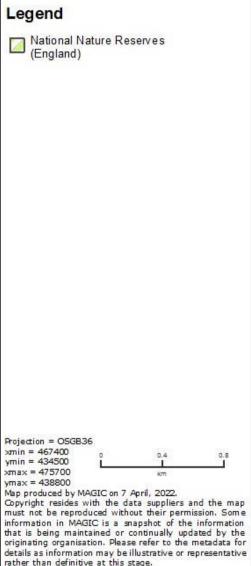






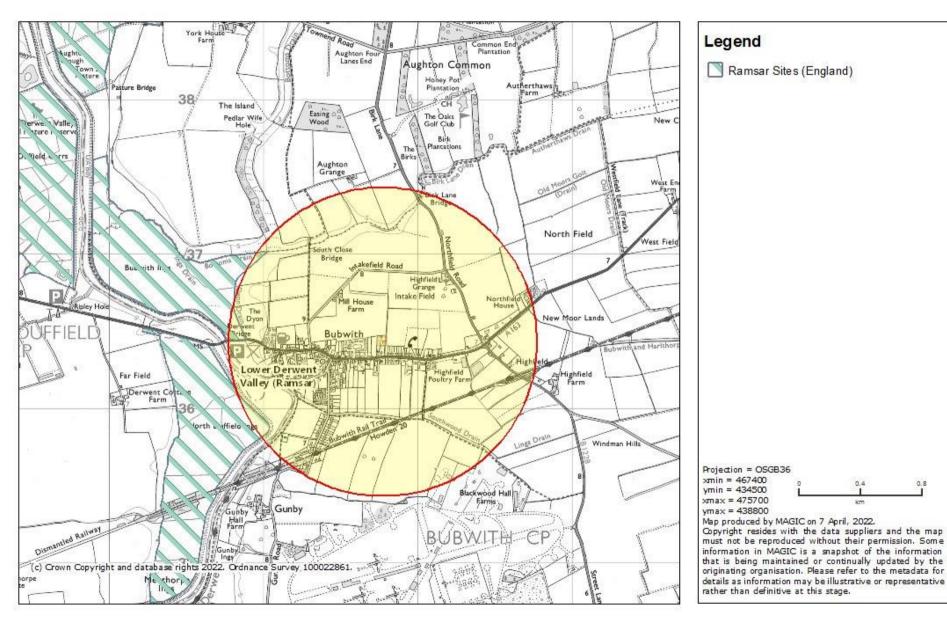
National Nature Reserve







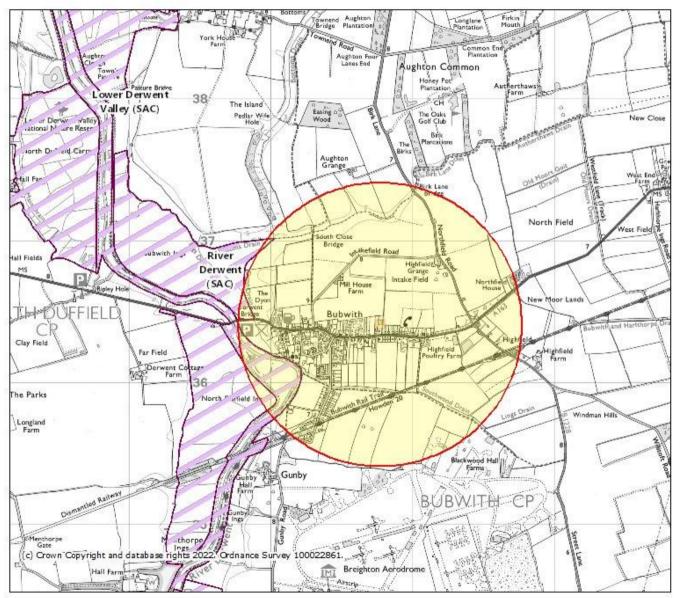
Ramsar Sites

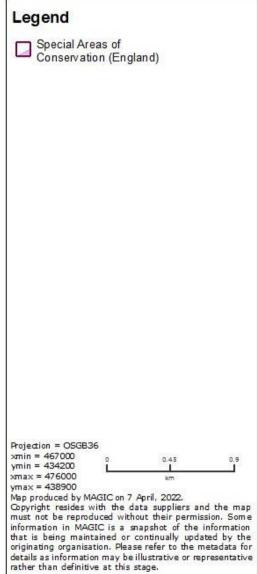






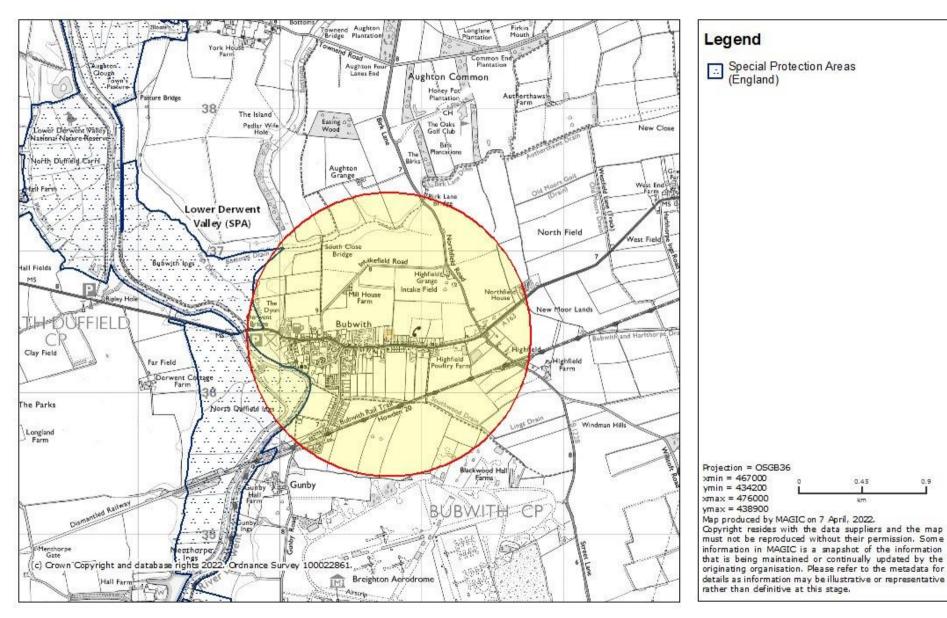
Special Areas of Conservation







Special Protection Areas





MAGIC

Sites of Special Scientific Interest

