



GEO
Environmental Engineering



PHASE 1: DESK TOP STUDY REPORT
(PRELIMINARY ENVIRONMENTAL RISK ASSESSMENT)

**PROPOSED COMMERCIAL DEVELOPMENT OF LAND TO
SOUTH OF VALE VIEW, EGREMONT
CUMBRIA**

FOR

THOMAS GRAHAM AND SONS LTD

GEO Environmental Engineering

DOCUMENT CONTROL SHEET

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1.0 Introduction

1.1 Instruction

Geo Environmental Engineering Ltd (GEO) have been commissioned by Consultant, A L Daines & Partners LLP on behalf of the Client, Thomas Graham and Sons Ltd to undertake a Phase 1: Desk Top Study Report (Preliminary Environmental Risk Assessment) for land to the south of Vale View in Egremont, Cumbria to determine any potential geohazards that may affect the development of the site.

It is understood that the Client is considering developing the site for commercial end use. Further details relating to the scope of development are included in Section 2.1.

This Phase 1: Desk Top Study Report is suitable for submission to the Local Authority as part of a planning application.

1.2 Objectives

The main objective of this Phase 1: Desk Top Study (DTS) Report is to assess the geological and environmental sensitivity of the development area and the surrounding environs to determine any potential geohazards that may impact the proposed development. Particular attention is made to any potentially contaminative industries or processes that may have taken place on site or immediately adjacent which may be considered as potentially posing a risk of ground/groundwater contamination and ground gas that could negatively affect the proposed end users, adjacent sites and controlled waters. This Phase 1: Desk Top Study Report has been completed in accordance with the following documents:

- Land Contamination Risk Management Stages 1 to 4 (LCRM – www.gov.uk) – April 2021.
- CLR11: Model Procedures for the Management of Land Contamination. DEFRA/EA, 2004.
- BS10175: 2017: Code of Practice for the Investigation of Potentially Contaminated Sites.
- BS5930: 2020: Code of Practice for Site Investigations.
- UK Specification for Ground Investigation, 2nd Edition. Site Investigation Steering Group, 2011.
- Effective Site Investigation. Site Investigation Steering Group, 2013.

1.3 Third Party Data Sources

During the completion of this DTS, information has been obtained and reviewed from the following sources:

- British Geological Survey (BGS) Geological Mapping Data
- Environment Agency (EA).
- Enviro+Geo Insight Ground Sure Report – (GSR – Appendix II).
- Ordnance Survey Historical Maps (Appendix III).
- The Coal Authority Online Database.

A site walkover was completed in March 2022. A summary of the site walkover is included in Section 2.0 and photographs of the site are presented in Appendix I.

1.4 Limitations of Use

The information, assessments, conclusions and recommendations presented within this Phase 1: Desk Top Study (DTS) Report are solely based on, and are limited to, the boundaries of the site, the immediate area and the historical use(s) as described.

This DTS has been completed using information relating to the physical and environmental setting of the development area, highlighting, where possible, any potential geohazards that might be encountered with respect to the proposed Commercial end use (i.e. "Best Fit" CLEA classification of *Commercial*).

Therefore, if a change in the proposed end use is envisaged, then a reassessment of the development area should be carried out.

Consequently, any comments, opinions, diagrams, cross sections and/or sketches contained within the DTS, and/or any configuration of the findings is purely conjectural and given for guidance only as no intrusive investigation works have been completed by Geo Environmental Engineering Ltd and it is recommended that confirmation of the anticipated ground conditions should be considered before development proceeds.

The conclusions and recommendations presented within this report are considered reasonable based on the available information. However, these cannot be guaranteed to gain regulatory approval. Therefore, the report should be passed to the appropriate regulatory authorities and/ or other key stakeholders in order to seek their approval of the findings prior to undertaking any works on site.

Agreement for the use or copying of this report by any Third Party must be obtained in writing from Geo Environmental Engineering Ltd. Reliance on the report is strictly in accordance with the Geo Environmental Engineering Ltd Standard Terms and Conditions, copies of which are available on request.

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2.0 Site Location and Development Proposals

2.1 Development Proposal

It is understood that the site will be developed for commercial end use. A proposed site layout plan has not been provided, however, it is anticipated that the development will comprise a large warehouse and yard for storage and distribution with associated offices and infrastructure. It is understood that the offices and warehousing are likely to be located along the north east boundary.

Further details relating to the proposed development should be obtained from the Consultant.

2.2 Site Location

The site, occupying an area of c.5.55ha is located in the southern part of Egremont, immediately west of the A595 trunk road as indicated on the site location plan included in Appendix I. Access to the site is from Vale View to the north.

- National Grid Reference: 301421, 509819
- Post Code: CA22 2RW (approximate only)

2.3 Site Description and Levels

A site walkover was completed in March 2022 and a selection of photographs of the site are included in Appendix I.

The site comprises a large agricultural field which appears to be used for pasture and is predominantly surfaced with long unkempt grasses, occasional scrub vegetation and exposed soils. Evidence of a former railway siding is present in the east of the site in the form of mounds of coarse granular material including possible railway ballast and a cutting in the south-eastern part.

A former railway was also present along the western boundary and evidence of this can be seen in the topography where the ground appears to have been raised and levelled. The western boundary slopes steeply to the fields below.

Evidence of a spring or possible leaking pipe were noted in the northern part of the site. The ground surrounding the feature was noted as "saturated and very soft". Much of the land surrounding the spring was surfaced with marsh grass.

A culvert was noted in the southern part of the site which crosses beneath the property.

The presence of the former railway lines/sidings and associated made ground is a potential source of made ground. However, no other sources of potential contamination were noted.

The site undulates with areas of steep ground in places. Overall, levels fall from the highest part in the north east at c.63m OD to the lowest part along the south west boundary at c.42m OD. A copy of the topographical survey drawing is included in Appendix I.

2.4 Surrounding Land Uses

The A595 trunk road is present immediately east of the site with agricultural fields beyond. A mixture of agricultural fields and commercial buildings are present to the west. Housing and St Thomas Cross Garage (vehicle maintenance) are present to the north. Fields are present to the south.

The vehicle maintenance garage to the north of the site is a potential source of hydrocarbon contamination, however, no evidence of significant spillages or leaks of chemicals, fuels or oils were noted on the ground surrounding the garage and the building appeared to be well maintained. The risk to the site is considered very low.

2.5 Existing Infrastructure and Utilities

A culvert was noted in the southern part of the site which crosses beneath the property.

Part of the field has been fenced off through the centre of the site. This appears to be associated with a United Utilities pipe (450mm HDPE). Utility plans also indicate a gas pipeline along the western boundary. Overhead electricity lines are also present on site.

It is recommended that all utility plans are reviewed prior to commencing any intrusive site works.

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3.0 Geo-Environmental Setting

This section is based principally upon a search of information available on public registers and obtained through the Ground Sure Report (GSR) to determine any environmental or geological constraints to the proposed development.

- Sections 3.1 to 3.4 refer to the Enviro+Geo Insight Ground Sure Report contained in Appendix II.
- Section 3.5 refers to the Historical Map Extracts contained in Appendix III.

3.1 Development Area Geology

A geological review of the site has been undertaken using information provided on published geological maps (BGS Sheet 37 Gosforth, Solid and Drift Edition, 1:50,000 scale) and the Ground Sure Report (GSR) contained in Appendix II.

An extract of the geological map is included below as Figure 1.



Figure 1. Geological Map Extract (red circle denotes approximate site location)

3.1.1 Made Ground

A review of the published geological map and the GSR does not indicate any made ground on the site, however, given the presence of historical railway lines along the east and west of the site, made ground is considered likely in these areas. The made ground is likely to be deepest along the western boundary where the ground appears to have been raised and levelled.

Historical maps indicate unspecified mounds of material, possible colliery spoil associated with Florence Iron Ore Pit which is located to the north east of the site during the 1950s/60s. In view of this, some made ground may still be present within the north eastern part of the site. During the site visit, a small mound of granular material was noted in the north east although this could be associated with the former railway siding.

A plan indicating the areas where made ground is likely to be present is included in Appendix I.

A culvert is recorded in the southern part of the site and this is likely to be overlain by made ground.

The rest of the site appears to have remained undeveloped agricultural land and is likely to be free of significant made ground.

Made ground associated with the former railway lines could comprise reworked natural drift deposits, railway ballast (coarse aggregate), ash, coal, clinker and other anthropogenic materials. Railway ballast itself is unlikely to be a potential source of significant contamination as the material often comprises quarried aggregate, however, fouling of the material during its use within the railway may have occurred and potential contaminants may include metals, hydrocarbons and asbestos (associated with brake linings). Ash, clinker and other such anthropogenic materials are also likely to be a source of metal and hydrocarbon contaminants.

Agricultural land can be disturbed/re-worked during agricultural processes (i.e. ploughing) and some undulations may have been infilled. Topsoil materials on agricultural land can frequently include coarse granular anthropogenic debris (i.e. fragments of ash, clinker, brick, etc.) that may have been added to aid drainage. Therefore, some made ground may be encountered on site associated with previous farming activities (drainage/levelling, etc...).

No areas of significant made ground are recorded within c.250m of the site boundary.

3.1.2 Drift Geological Deposits

A review of the published geological map and the GSR indicates that the site is underlain by glacial till deposits. These deposits typically comprise firm and stiff gravelly clays with bands of sand and gravel. Boulders may also be encountered.

The GSR indicates the following geohazards and associated preliminary level of risk:

■ Shrink-swell clays	very low risk
■ Landslides	low risk.
■ Compressible deposits	negligible risk.
■ Collapsible deposits	very low risk.
■ Running sands	very low risk.

The drift deposits are classified as a Secondary Aquifer.

Phase 2: Ground Investigation works would be prudent to aid the design of foundations and any retaining structures or roads, should they be deemed necessary by the Design Team.

3.1.3 Bedrock Deposits

Reference to the published geological map and the GSR indicates the site is underlain by the St Bees Sandstone Member. This typically comprises red-brown very fine to medium grained cross-bedded sandstones which are devoid of coal seams.

The solid strata is classified as a Principal Aquifer.

The GSR indicates a negligible risk associated with the dissolution of soluble rocks.

3.1.4 Historical Investigation Records

A historical borehole was drilled on the site to a depth of c.297m bgl in 1913. The borehole encountered gravel and 'Pinnel' (glacial clay) to a depth of c.7.5m bgl. This was underlain by sandstone, shale and conglomerate to a depth of c.181m bgl. This was underlain by limestones and 'grit' to the base of the borehole.

3.1.5 Geological Features

A geological fault crosses the site, orientated north west – south east. The structural risk to the site is considered negligible as any ground movements will have ceased by now. However, the fault can act as a conduit for gasses and groundwater.

3.1.6 Coal Mining Assessment

Reference to the published geological map and the GSR indicates the site is underlain by the St Bees Sandstone Member which is devoid of coal seams. No coal seams are recorded as sub-cropping within 1km of the site.

Reference to The Coal Authority online database and the GSR indicate that the site is not located within a coal mining referral area.

Based on the information presented above, the risk to the site and the proposed development from coal mining is considered negligible.

3.1.7 Non-Coal Mining and Quarrying Assessment

The GSR indicates that the site is located in an area where mineral veins are known to have been mined as the site is located c.330m south west of a former Iron Ore Mine (Florence Mine). The report includes the following comment with regards to mineral vein mining:

“Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered.”

A detailed 1:10,000 scale geological map is not available for the site. However, based on the historical borehole record (see Section 3.1.4 above), carbonate rocks which typically host haematite ore-bodies in south and west Cumbria were encountered at a depth of c.181m bgl. At this depth, the risk to the proposed development from any ground movements associated with iron ore mining is considered negligible and further research or intrusive investigations are not considered necessary.

Unspecified quarries (Beggargill Quarry) are recorded c.36m south east of the site. This was recorded as disused from the early 1900s. The quarry doesn't appear to have been infilled.

Information presented within the GSR suggests that there is no risk to the development from brine extraction, tin mining, clay mining and gypsum extraction. The GSR also notes that the site is not at risk of natural cavities.

3.1.8 Radon Gas Assessment

The GSR indicates that the development site is not located within a Radon Affected Area as defined by the British Geological Survey and Public Health England, as less than 1% of properties are above the action level. The plan provided in the GSR indicates that there no radon affected areas within c.250m of the site. Consequently, in accordance with the British Geological Survey and Public Health England, radon protection measures are not necessary.

3.2 Development Area Hydrogeology (Groundwater)

3.2.1 Made Ground/Soils

Any made ground/topsoil materials on site are likely to be classified as high permeability (i.e. worst-case scenario assumed until proven otherwise).

3.2.2 Drift Geology

The drift deposits beneath the site are classified as a Secondary Aquifer. This is assigned where it is not possible to attribute either category A or B.

3.2.3 Solid Geology

The underlying bedrock (St Bees Sandstone Member) is designated a Principal Aquifer status. This is typically strata of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale.

3.3 Development Area Hydrology

3.3.1 Groundwater

Given the topography and anticipated ground conditions, shallow groundwater is not anticipated.

A review of the Hydrology information in the GSR indicates the following:

- No active groundwater abstractions are recorded within c.1km of the site.
- No surface water abstractions are recorded within c.1km of the site.
- The nearest active potable water abstraction licence is located c.1.3km west of the site.
- The site is recorded as being within Type 3 Source Protection Zone.

3.3.2 Surface Water Features

There are no surface water features recorded within c.250m of the site boundary.

3.3.3 Current Surface Water Run-off

Given the anticipated ground conditions, it is likely that any surface water will infiltrate directly into the shallow soils with some overland flow likely during heavy rainfall events.

3.4 Development Area Environmental Sensitivity

3.4.1 Site Ecology

No environmental designations (Sites of Special Scientific Interest, Special Area of Conservation, etc...) are present within 250m. For further details, please refer to Section 10 of the GSR in Appendix II.

3.4.2 Authorisations, Incidents and Registers

The nearest Licensed pollutant Release (Part A(2)/B) is located c.224m north west at Bridge End Garage.

The nearest Licensed Discharge to Controlled Waters is located c.144m north west at Picket How Farm for sewage release.

The nearest pollutant Incident was located c.109m west, however, the impact was negligible.

No other Authorisations, Incidents and Registers are recorded within c.250m. The Design Team should refer to Section 2.0 of the GSR in Appendix II.

3.4.3 Determination of Contaminated Land (Part IIA)

A review of the GSR indicates that the site is not currently recorded as being considered as Contaminated Land under Part IIA EPA 1990. In addition, no sites are determined as Contaminated Land under Part IIA EPA 1990 within c.500m of the proposed development area.

3.4.4 Historical Industrial Land Uses

A review of Section 1.0 in the GSR indicates the following historical land uses:

- Potentially Contaminative Uses (PCU) – The GSR indicates cuttings, railway sidings and heaps as PCUs on site. Offsite, PCUs include quarries (c.36m SE), railway buildings (c.46m SW), Iron Ore Pits (c.64m NE), Depot (c.72m W), Mills and Factories (c.103m W).
- Historical Tanks – The GSR indicates a tank on the western boundary in 1861 however, this is likely to have been a trough. The nearest recorded tank was located c.164m south.
- Potentially Infilled Land – The western boundary appears to have been raised and levelled as part of the railway construction. The made ground may be deep in places.
- Historical Energy Features – None of concern noted within c.250m.
- Historical Petrol and Fuel Site Database – None noted within c.250m.
- Historical Garage and Motor Vehicle Repair Database – The nearest garage was located c.197m NW.

3.4.5 Current Industrial Land Uses

A vehicle maintenance garage (St Thomas Cross Garage) is recorded c.15m north east of the site. The garage appeared well maintained with no signs of significant spillages or leaks of chemicals, fuels or oils. A small industrial estate is located c.55m west of the site.

3.4.6 Fuel Station Entries

No fuel filling stations are currently active within c.500m of the site.

3.4.7 Landfill and Waste Regulation/Management – Landfill Sites

Historical landfill sites are recorded c.18m north east and c.246m east. The landfill to the north east appears to be part of the disused railway cutting and was recorded as accepting inert wastes. The landfill appears to have closed in the early 1990s. The landfill to the east accepted inert and industrial wastes and closed in 2000.

Further details are provided in Section 3.0 of the GSR in Appendix II.

3.5 Development Area Historical Plan Appraisal

This section is based on historical Ordnance Survey map data and provides a summary of the site history, highlighting any industries, processes or activities that may be considered as Geohazards. Copies of historical maps which date back to 1861 are provided in Appendix III and a summary of the site history is included below.

3.5.1 On-Site

The first historical map extract dated 1861 shows the site as agricultural fields. Small streams appear to be present in the north and south of the site. By 1898 a railway was recorded along the western boundary.

By 1926, a railway siding (Florence Siding) branched off from the main railway and crossed the southern and eastern parts of the site. Two railway lines running parallel were indicated along the western boundary. The stream in the south of the site appears to have been culverted.

By 1956, a mound of unknown material, possibly colliery spoil was recorded in the north eastern part of the site.

By 1981, Florence Siding had been dismantled but the mound remained.

All of the railways and the mound had been removed by 1994. The layout of the site from 1994 appears similar to that seen during the walkover.

3.5.2 Off-Site

The first historical map extract dated 1861 shows the site surrounded by agricultural fields. A Paper Mill is indicated c.50m west of the site. Beggargill Quarry was present c.30m south east.

During the early 1900s Florence Iron Ore Mine was located c.350m north east of the site. A railway siding passed through the eastern part of the site and connected the mine to the main railway network. The Paper Mill to the west had changed to a Woollen Mill, and Beggargill Quarry to the south east was recorded as disused.

By the late 1900s, the A595 had been constructed immediately east and factories were present c.50m west. Florence mine had closed and the railway lines had been dismantled and removed. Much of the surrounding land has remained undeveloped agricultural fields.

3.5.3 Summary and Potential Contamination Sources

The surrounding area has been used for quarrying and as an iron ore mine although much of the land has remained undeveloped agricultural fields.

The former railway lines and mounds of material recorded on site are potential sources of made ground and possible contamination sources. Due to the possibility for deep made ground in the western part of the site, there is a potential risk of ground gas.

4.0 Conceptual Site Model

A Conceptual Site Model (CSM) has been designed using the information presented within this DTS to provide a model of the anticipated ground, groundwater and ground gas conditions below the development area (Existing Site CSM).

The CSM utilises the established *Source – Pathway – Receptor* pollutant linkage model and is designed to provide an improved understanding of the site characteristics. This ensures adequate and appropriate Phase 2: Ground Investigation (P2 GI) Works are designed and undertaken for wide spread and targeted investigations, should they be deemed necessary.

Depending on the results of the ground investigation, the CSM can be refined based upon the outcomes of the intrusive works to ensure that appropriate remediation (if required) is completed to ensure the development area is “fit for purpose” in relation to the proposed commercial end use.

The preliminary CSM is presented in the matrix on the following page and considers the anticipated *Source – Pathway – Receptor* pollutant linkage model derived for this site.

<u>SOURCE-PATHWAY-RECEPTOR POLLUTANT LINKAGE MODEL</u>	
Sources:	
S1 = Made Ground.	Historical information indicates that railways were present in the western and eastern parts of the site during the land 1800s through to the mid-1900s. Mounds of unknown material, possible colliery spoil were also indicated in the north eastern part of the site. As such, made ground is likely to be present and this could be deep, especially in the western parts of the site. The made ground is a potential source of contamination although the risk to human health on a commercial / industrial development is considered very low to negligible.
S2 = Ground Gas - Potential Sources Identified.	There is a potential for deep made ground on site which could be a potential source of ground gas, although the risk is very low. There are also potential offsite sources associated with the historical land uses. It would be prudent to confirm the risk by recording the levels of carbon dioxide and methane within the ground. A programme of ground gas monitoring should therefore be completed.
Pathways:	
P1 = Inhalation of air (wind-blown particles, vapours, gasses)	
P2 = Dermal/direct contact (risk is very low to negligible based on proposed end use)	
P3 = Ingestion (risk is negligible based on proposed end use)	
P4 = Migration through services (potable water supply)	
P5 = Direct contact with building materials (aggressive ground conditions for buried concrete)	
P6 = Surface Run-off (risk to surface water courses)	
P7 = Leaching from Soils (to underlying Principal Aquifer)	
Receptors:	
R1 = Human Health (End users and Construction Workforce)	
R2 = Controlled Waters (Principal Aquifer and surface water courses)	
R3 = Building Materials and Buried Utilities	

5.0 Preliminary Qualitative Risk Assessment

5.1 Qualitative Geotechnical Risk Assessment – Risk Meter

The preliminary Geotechnical Risk Meter below indicates the potential level of geotechnical risk associated with the proposed development. The risk meter takes into account past development, geology, mining and other geotechnical factors which have been discussed earlier in the report.

Geotechnical:	↓					
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH

A risk level of LOW to MODERATE is determined appropriate for this development area for the following reasons:

- The geotechnical risk is dependant on the location of the proposed development:
 - The Consultant has indicated that the proposed buildings will be located in the north eastern part of the site where the risk is deemed to be low. Made ground is likely to be present in this area but is unlikely to be deep.
 - Across the western parts of the site where the levels have been raised during construction of the former railway, made ground could be deep. Structures in this area may necessitate alternative foundation solutions such as piles, and consideration should be given to slope stability.
- Much of the site has remained undeveloped and made ground is considered unlikely in these areas.
- A culvert is present in the southern part of the site, and this should be taken into consideration when locating the proposed buildings/roads, retaining structures, etc...
- Geological records indicate that the site is underlain by glacial till deposits which typically comprise firm and stiff clays with bands of sand and gravel. As such, there is a potential for some variable ground conditions.
- Information suggests that the site is not at risk of coal or iron ore mining related geohazards.
- A spring was noted in the northern part of the site; therefore consideration should be given to groundwater control measures.
 - A shallow groundwater table is not anticipated although some trapped “perched” water may be present within any drift deposits.
- Where clay soils are present, their soil shrinkability could be affected by mature vegetation such as trees.

Consequently, it would be prudent to complete a Phase 2: Ground Investigation to confirm the underlying ground conditions (i.e. the presence of any made ground and the drift deposits) and to allow samples to be recovered for geotechnical laboratory analysis to aid the design of foundations, highways and drainage.

5.2 Qualitative Contamination Risk Assessment – Risk Meter

The following Risk Meter determines the potential level of risk associated with the development with respect to ground contamination, groundwater contamination and ground gas. The risk meter takes into account the anticipated *Sources – Pathways – Receptors* within the pollutant linkage model and CSM.

Ground Contamination:						
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
Groundwater Contamination:						
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
Ground Gas: (Carbon Dioxide and Methane)						
RISK =	NEGLIGIBLE	VERY LOW	LOW	MODERATE	HIGH	VERY HIGH
Radon Gas:						
	<1%	1%-3%	3%-5%	5%-10%	10%-30%	>30%*
Estimated Percentage of Dwellings Exceeding the Radon Action Level						

Ground Contamination: A risk level of VERY LOW is currently determined appropriate for this development with respect to ground contamination. In summary, railways passed through the site during the late 1800s and the early to mid-1900s and a mound of unknown material, possibly colliery spoil was present during the mid-1900s. There is a potential for made ground where these features were present, especially in the west where it could be deep.

The made ground is likely to comprise railway ballast, aggregates, clinker, ash and other anthropogenic materials which could be a source of possible contamination including metals, hydrocarbons and asbestos. However, free-phase petroleum hydrocarbon contamination, i.e. fuels or oils are considered unlikely.

Although some contaminants are likely to be present within the made ground, the risk to human health on a commercial / industrial development is considered very low as the pathway will be mostly broken by the presence of hardstanding and buildings. Furthermore, any exposure to the contaminants would be transient.

There is a potential pathway where soils are exposed at or close to the surface in areas of possible soft landscaping, however, this could be dealt with as part of a basic remediation scheme such as a clean cover system.

It is recommended that intrusive investigations are completed to confirm the shallow ground conditions. Samples should be recovered to allow for chemical laboratory screening to determine if the made ground and topsoil materials are suitable for re-use in a commercial context as part of a Human Health risk assessment.

It is recommended that the materials are screened for a generic suite of contaminants that should include: Metals, Metalloids, pH, Water Soluble Sulphate, Total Organic Carbon, Asbestos and Speciated PAH.

If, during the ground investigation, evidence of potential contamination is identified, it may be necessary to increase the range of contaminant screening depending on the nature and type of contaminants encountered.

In addition to the above, a watching brief should be implemented during the development works to ensure that if any visual/olfactory evidence of potential contamination (i.e. fuel/oil) are identified then works should be stopped, the Local Authority notified and advice should be sought from an appropriately qualified and experienced Geo-Environmental Engineer.

Groundwater Contamination: A risk level of NEGLIGIBLE is currently considered appropriate for the site with respect to potential risks to controlled waters (groundwater, nearby surface water features) and adjacent sites. Although two streams pass through the site in the north and the south, these are culverted and do not come into contact with the made ground materials.

Any leaching of mobile contaminants will have mostly ceased by now although care should be taken during construction works to prevent any made ground materials or soils from entering the stream. As such, silt traps may be necessary to prevent wash off from site.

Ground Gas: A risk level of VERY LOW is currently considered appropriate for the site with respect to potential harmful ground gas. There is a potential for deep made ground on site which could be a source of ground gas although the risk is very low.

It is recommended that a phase of gas monitoring is carried out as part an intrusive ground investigation. Given the proposed end use (commercial), the gas monitoring must comprise at least 4 visits over a minimum period of 4 weeks.

Radon Gas: The site is not located within a Radon Affected Area as defined by the British Geological Survey and Public Health England, as less than 1% of properties are above the action level. The plan provided in the GSR indicates that there no radon affected areas within c.250m of the site. Consequently, radon protection measures are not necessary.

6.0 Conclusions

When considering the results of this DTS report, the following can be seen:

- The development site is currently considered to represent a low to moderate geotechnical risk.
- The site is currently considered to pose a very low risk to the proposed end users from ground contamination.
- The site is currently considered to pose a negligible risk to adjacent sites (the surrounding environment) and controlled waters with respect to potential ground/groundwater contamination.
- The site is currently considered to pose a very low risk to the proposed end users from ground gas.

6.1 Recommendation for Phase 2: Ground Investigation Works

It would be prudent to complete a programme of Ground Investigation works to fully characterise the ground/groundwater conditions and ground gas regime below the site. The resulting information should be suitable for submission to the Local Authority for planning purposes and for the appointed design team.

In summary, the site works should include, but not limited to:

- Mini percussion boreholes and trial pits to determine the nature and in-situ strength of the underlying ground conditions across the development site.
- Soil logging by a suitably qualified and experienced Geo-Environmental Engineer.
- In-situ testing to aid foundation design.
- Laboratory geotechnical testing and screening of soil samples.
- Installation of ground gas monitoring wells.
 - o Ground gas monitoring (minimum 4 visits over 4 weeks).
- Level 1 Generic Quantitative Risk Assessment (GQRA) for Human Health in relation to contamination and ground gas.

Laboratory screening of soil samples will be required to determine the risk to potential receptors, namely proposed staff and possible customers (human health).

GEO recommends that a “watching brief” and “observational technique” be applied to this site to ensure that if ground conditions appear to vary from those inferred within this investigation report then advice should be sought from a suitably qualified and experienced Geo-Environmental Engineer. In the event that made ground is identified during works on site then sampling of those materials should be completed by an appropriate Geo-Environmental Engineer to facilitate contamination screening and a Human Health Risk Assessment.

GEO is not responsible for the accuracy and completeness of third-party information and cannot be held responsible for any errors or omissions that may occur. The contents of this report have been specifically requested by the client and therefore any items not specifically mentioned cannot be assumed to be covered.

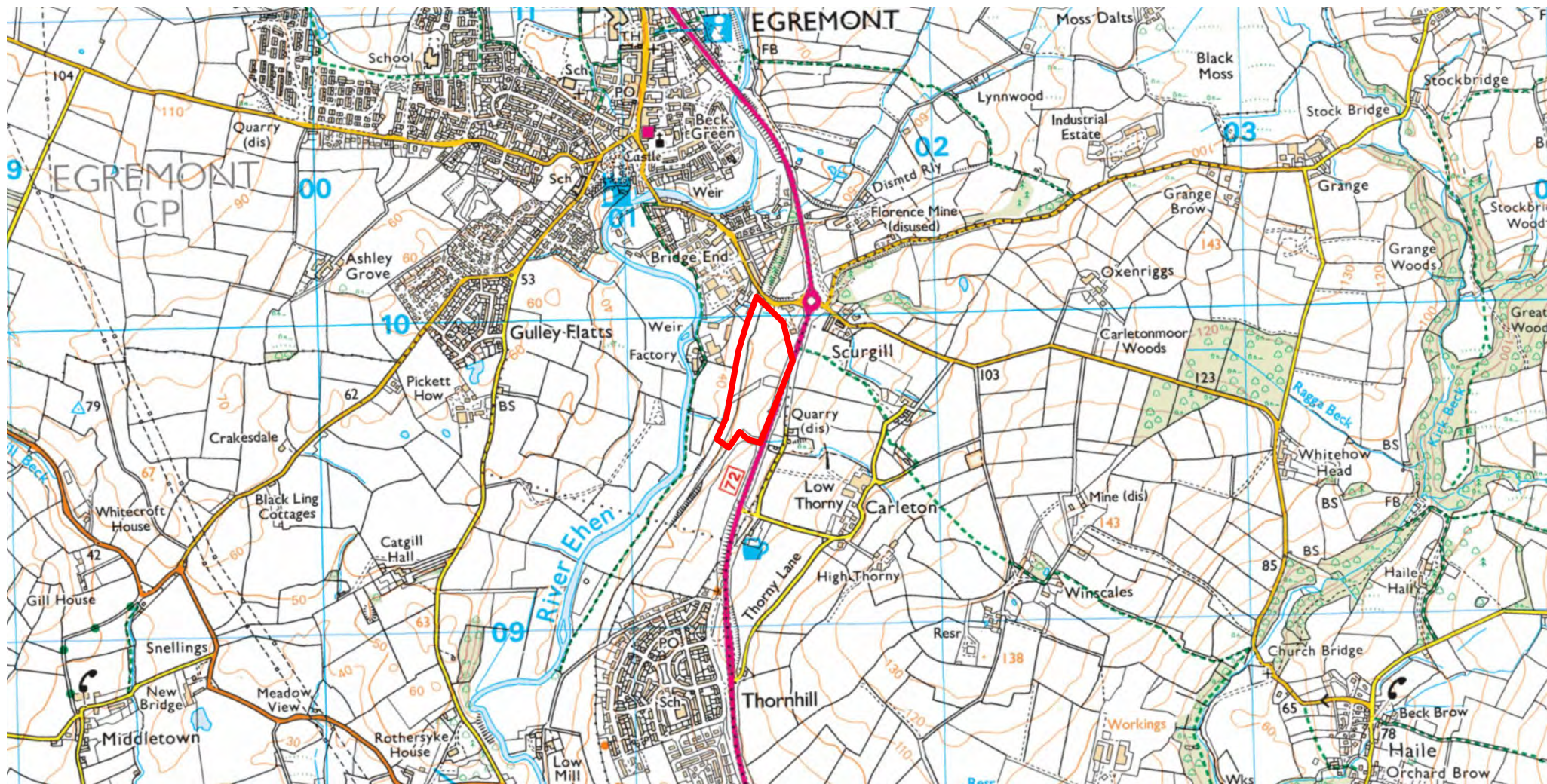
The conclusions and recommendations presented within this report are considered reasonable based on the available information. However, these cannot be guaranteed to gain regulatory approval. Therefore, the report should be passed to the appropriate Regulatory Authorities and/ or other key stakeholders in order to seek their approval of the findings prior to finalising any land values as part of a site acquisition or prior to undertaking any construction or redevelopment works on site.

End of Report

Appendix I

- Site Location Plan
- Aerial Photograph Extract
- Suspected Areas of Made Ground
- Site Walkover Photographs (March 2022)
- Topographical Survey Drawing

GEO2021-4760: Vale View, Egremont – Site Location



Website: www.geoenvironmentalengineering.com

Email: info@geoenvironmentalengineering.com

Telephone: 08456 768 895 / 07883 440 186

GEO2021-4760: Vale View, Egremont – Aerial Photograph



Website: www.geoenvironmentalengineering.com

Email: info@geoenvironmentalengineering.com

Telephone: 08456 768 895 / 07883 440 186

GEO2021-4760: Vale View, Egremont – Suspected Areas of Made Ground



GEO2021-4760: Vale View, Egremont – Site Photographs



GEO2021-4760: Vale View, Egremont – Site Photographs





Appendix II

- Enviro+Geo Insight Ground Sure Report (GSR)

Order Details

Date: 21/03/2022
Your ref: EMS_768262_955958
Our Ref: EMS-768262_993784
Client: emapsite

Site Details

Location: 301421 509819
Area: 5.55 ha
Authority: [Copeland Borough Council](#)



Summary of findings

p. 2 **Aerial image**

p. 8

OS MasterMap site plan

p.12 groundsure.com/insightuserguide

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	9	2	18	20	-
15	1.2	Historical tanks	0	0	1	8	-
16	1.3	Historical energy features	0	0	6	1	-
17	1.4	Historical petrol stations	0	0	0	0	-
17	1.5	Historical garages	0	0	3	1	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
18	2.1	Historical industrial land uses	10	3	26	23	-
21	2.2	Historical tanks	0	0	1	11	-
22	2.3	Historical energy features	0	0	11	4	-
22	2.4	Historical petrol stations	0	0	0	0	-
23	2.5	Historical garages	0	0	5	1	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	1	-
25	3.4	Historical landfill (EA/NRW records)	0	1	1	0	-
26	3.5	Historical waste sites	0	0	0	0	-
26	3.6	Licensed waste sites	0	0	3	3	-
28	3.7	Waste exemptions	0	0	3	23	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
31	4.1	Recent industrial land uses	0	1	16	-	-
33	4.2	Current or recent petrol stations	0	0	1	0	-
33	4.3	Electricity cables	0	0	0	0	-
33	4.4	Gas pipelines	0	0	0	0	-
33	4.5	Sites determined as Contaminated Land	0	0	0	0	-



33	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
34	4.7	Regulated explosive sites	0	0	0	0	-
34	4.8	Hazardous substance storage/usage	0	0	0	0	-
34	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
34	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
34	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	1	1	-
35	4.12	Radioactive Substance Authorisations	0	0	0	0	-
35	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	10	12	-
39	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
39	4.15	Pollutant release to public sewer	0	0	0	0	-
39	4.16	List 1 Dangerous Substances	0	0	0	0	-
39	4.17	List 2 Dangerous Substances	0	0	0	0	-
39	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	1	7	-
40	4.19	Pollution inventory substances	0	0	0	0	-
41	4.20	Pollution inventory waste transfers	0	0	0	0	-
41	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
42	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
44	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
46	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
47	5.4	<u>Groundwater vulnerability- soluble rock risk</u>	Identified (within 0m)				
48	5.5	Groundwater vulnerability- local information	None (within 0m)				
49	5.6	<u>Groundwater abstractions</u>	0	0	0	8	21
56	5.7	Surface water abstractions	0	0	0	0	0
57	5.8	<u>Potable abstractions</u>	0	0	0	2	8
59	5.9	<u>Source Protection Zones</u>	1	0	0	0	-
59	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
60	6.1	<u>Water Network (OS MasterMap)</u>	4	2	12	-	-



62	6.2	<u>Surface water features</u>	1	3	5	-	-
62	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
63	6.4	<u>WFD Surface water bodies</u>	0	0	1	-	-
63	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
64	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
65	7.2	<u>Historical Flood Events</u>	0	0	2	-	-
65	7.3	Flood Defences	0	0	0	-	-
65	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
66	7.5	Flood Storage Areas	0	0	0	-	-
67	7.6	<u>Flood Zone 2</u>	Identified (within 50m)				
68	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
69	8.1	<u>Surface water flooding</u>	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding					
71	9.1	<u>Groundwater flooding</u>	Moderate-High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
72	10.1	<u>Sites of Special Scientific Interest (SSSI)</u>	0	0	0	1	2
73	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
73	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
73	10.4	Special Protection Areas (SPA)	0	0	0	0	0
73	10.5	National Nature Reserves (NNR)	0	0	0	0	0
74	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
74	10.7	<u>Designated Ancient Woodland</u>	0	0	0	0	2
74	10.8	Biosphere Reserves	0	0	0	0	0
75	10.9	Forest Parks	0	0	0	0	0
75	10.10	Marine Conservation Zones	0	0	0	0	0
75	10.11	Green Belt	0	0	0	0	0
75	10.12	Proposed Ramsar sites	0	0	0	0	0



75	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
76	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
76	10.15	Nitrate Sensitive Areas	0	0	0	0	0
76	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
77	<u>10.17</u>	<u>SSSI Impact Risk Zones</u>	4	-	-	-	-
79	<u>10.18</u>	<u>SSSI Units</u>	0	0	0	1	4
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
82	11.1	World Heritage Sites	0	0	0	-	-
83	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
83	11.3	National Parks	0	0	0	-	-
83	<u>11.4</u>	<u>Listed Buildings</u>	0	0	1	-	-
84	11.5	Conservation Areas	0	0	0	-	-
84	11.6	Scheduled Ancient Monuments	0	0	0	-	-
84	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
85	<u>12.1</u>	<u>Agricultural Land Classification</u>	Grade 3 (within 250m)				
86	12.2	Open Access Land	0	0	0	-	-
86	<u>12.3</u>	<u>Tree Felling Licences</u>	0	5	10	-	-
87	<u>12.4</u>	<u>Environmental Stewardship Schemes</u>	1	0	1	-	-
87	<u>12.5</u>	<u>Countryside Stewardship Schemes</u>	1	0	3	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
88	<u>13.1</u>	<u>Priority Habitat Inventory</u>	0	0	3	-	-
89	<u>13.2</u>	<u>Habitat Networks</u>	0	0	1	-	-
89	13.3	Open Mosaic Habitat	0	0	0	-	-
89	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
90	<u>14.1</u>	<u>10k Availability</u>	Identified (within 500m)				
91	14.2	Artificial and made ground (10k)	0	0	0	0	-
92	14.3	Superficial geology (10k)	0	0	0	0	-

92	14.4	Landslip (10k)	0	0	0	0	-
93	14.5	Bedrock geology (10k)	0	0	0	0	-
93	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
94	15.1	<u>50k Availability</u>	Identified (within 500m)				
95	15.2	Artificial and made ground (50k)	0	0	0	0	-
95	15.3	Artificial ground permeability (50k)	0	0	-	-	-
96	15.4	<u>Superficial geology (50k)</u>	1	3	4	11	-
97	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
98	15.6	Landslip (50k)	0	0	0	0	-
98	15.7	Landslip permeability (50k)	None (within 50m)				
99	15.8	<u>Bedrock geology (50k)</u>	1	0	0	3	-
100	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
100	15.10	<u>Bedrock faults and other linear features (50k)</u>	1	0	2	3	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
101	16.1	<u>BGS Boreholes</u>	5	17	71	-	-
Page	Section	Natural ground subsidence					
106	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
108	17.2	<u>Running sands</u>	Low (within 50m)				
110	17.3	<u>Compressible deposits</u>	Moderate (within 50m)				
112	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
113	17.5	<u>Landslides</u>	Moderate (within 50m)				
115	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
117	18.1	Natural cavities	0	0	0	0	-
118	18.2	<u>BritPits</u>	0	0	1	3	-
119	18.3	<u>Surface ground workings</u>	7	1	15	-	-
120	18.4	<u>Underground workings</u>	0	0	0	2	8
120	18.5	Historical Mineral Planning Areas	0	0	0	0	-



<u>121</u>	<u>18.6</u>	<u>Non-coal mining</u>	2	0	0	3	4
<u>122</u>	<u>18.7</u>	<u>Mining cavities</u>	0	0	2	1	1
122	18.8	JPB mining areas	None (within 0m)				
123	18.9	Coal mining	None (within 0m)				
123	18.10	Brine areas	None (within 0m)				
123	18.11	Gypsum areas	None (within 0m)				
123	18.12	Tin mining	None (within 0m)				
123	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<u>124</u>	<u>19.1</u>	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<u>125</u>	<u>20.1</u>	<u>BGS Estimated Background Soil Chemistry</u>	4	8	-	-	-
126	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
126	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
127	21.1	Underground railways (London)	0	0	0	-	-
127	21.2	Underground railways (Non-London)	0	0	0	-	-
128	21.3	Railway tunnels	0	0	0	-	-
<u>128</u>	<u>21.4</u>	<u>Historical railway and tunnel features</u>	3	0	3	-	-
128	21.5	Royal Mail tunnels	0	0	0	-	-
<u>129</u>	<u>21.6</u>	<u>Historical railways</u>	1	0	0	-	-
129	21.7	Railways	0	0	0	-	-
129	21.8	Crossrail 1	0	0	0	0	-
129	21.9	Crossrail 2	0	0	0	0	-
129	21.10	HS2	0	0	0	0	-



Recent aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved.

Capture Date: 10/10/2018

Site Area: 5.55ha



Recent site history - 2008 aerial photograph



Capture Date: 05/10/2008

Site Area: 5.55ha



Recent site history - 2000 aerial photograph



Capture Date: 16/06/2000

Site Area: 5.55ha



Recent site history - 1999 aerial photograph



Capture Date: 26/07/1999

Site Area: 5.55ha



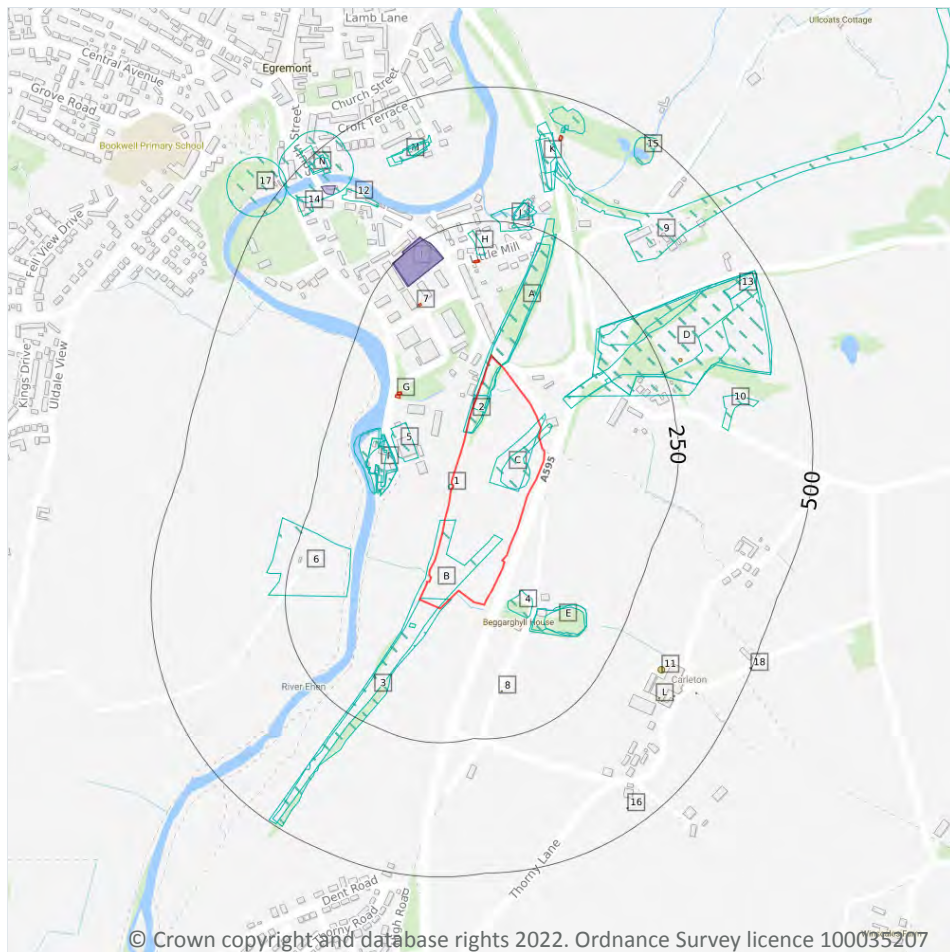
OS MasterMap site plan



Site Area: 5.55ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

49

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
1	On site	Unspecified Tank	1861	550975



ID	Location	Land use	Dates present	Group ID
2	On site	Cuttings	1951	629773
3	On site	Railway Sidings	1926	636943
A	On site	Cuttings	1926	548065
A	On site	Cuttings	1898	593540
A	On site	Cuttings	1948	633502
B	On site	Railway Sidings	1951	618794
C	On site	Refuse Heap	1951	588854
C	On site	Unspecified Heap	1971 - 1981	622678
4	36m SE	Unspecified Quarry	1861	558716
B	46m SW	Railway Building	1926 - 1951	592182
D	58m NE	Tramway Sidings	1926	558362
D	64m NE	Railway Sidings	1948	586548
D	64m NE	Iron Ore Pit	1948	612014
5	72m W	Unspecified Depot	1994	554061
E	91m SE	Unspecified Quarry	1861 - 1898	600042
E	91m SE	Unspecified Disused Quarry	1926 - 1951	626735
F	103m W	Paper Mill	1861	556561
F	104m W	Unspecified Factory	1971 - 1981	613399
F	104m W	Unspecified Mill	1994	620671
F	104m W	Woollen Mill	1926 - 1951	637311
E	110m SE	Unspecified Disused Quarry	1971 - 1994	611832
F	127m W	Unspecified Mill	1898	627510
6	135m W	Sewage Works	1926	553539
D	143m NE	Iron Ore Pit	1926	620905
D	175m NE	Refuse Heap	1926 - 1948	613882
H	187m N	Unspecified Ground Workings	1926	581264
J	232m N	Corn Mill	1861	553774
J	241m N	Unspecified Mill	1898 - 1926	623187



ID	Location	Land use	Dates present	Group ID
J	256m N	Unspecified Mill	1948	592517
9	319m NE	Railway Sidings	1948	586564
K	320m N	Cuttings	1948	605669
K	327m N	Cuttings	1926	597352
10	334m E	Refuse Heap	1971 - 1981	630974
12	348m NW	Tannery	1861	579394
K	354m N	Cuttings	1898	639056
M	395m NW	Sawmill	1948	638419
M	398m NW	Sawmill	1898 - 1926	623974
M	400m N	Flint Mill	1861	576816
N	415m NW	Unspecified Mill	1948	589849
13	417m NE	Cuttings	1926	584751
14	427m NW	Police Station	1898	580950
K	435m N	Unspecified Old Shaft	1948	586833
K	442m N	Unspecified Old Shaft	1926	586834
K	442m N	Refuse Heap	1926 - 1948	634780
15	452m NE	Refuse Heap	1948	588853
N	454m NW	Corn Mill	1861	553773
N	465m NW	Unspecified Mill	1926	632312
17	483m NW	Unspecified Pits	1861	554836

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

9

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**



ID	Location	Land use	Dates present	Group ID
8	164m S	Tank or Trough	1863	75486
D	285m E	Unspecified Tank	1924	72900
11	342m SE	Unspecified Tank	1990 - 1993	77510
L	369m SE	Tank or Trough	1863	75535
L	375m SE	Tank or Trough	1863	75536
L	392m SE	Tank or Trough	1863	75534
L	425m SE	Tank or Trough	1863	75532
16	462m SE	Tank or Trough	1863	75487
18	496m E	Tank or Trough	1863	75533

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

7

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
G	133m W	Electricity Substation	1993 - 1994	43422
G	134m W	Electricity Substation	1990 - 1993	43010
G	135m W	Electricity Substation	1995	42957
7	160m NW	Electricity Substation	1995	42075
H	175m N	Electricity Substation	1993 - 1994	43261
H	175m N	Electricity Substation	1995	43612
K	420m N	Electricity Substation	1982 - 1995	42674

This data is sourced from Ordnance Survey / Groundsure.



1.4 Historical petrol stations

Records within 500m**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m**4**

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 13**

ID	Location	Land use	Dates present	Group ID
I	197m NW	Garage	1968	13780
I	197m NW	Garage	1982 - 1994	14289
I	197m NW	Garage	1995	13799
N	420m NW	Garage	1961	13604

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

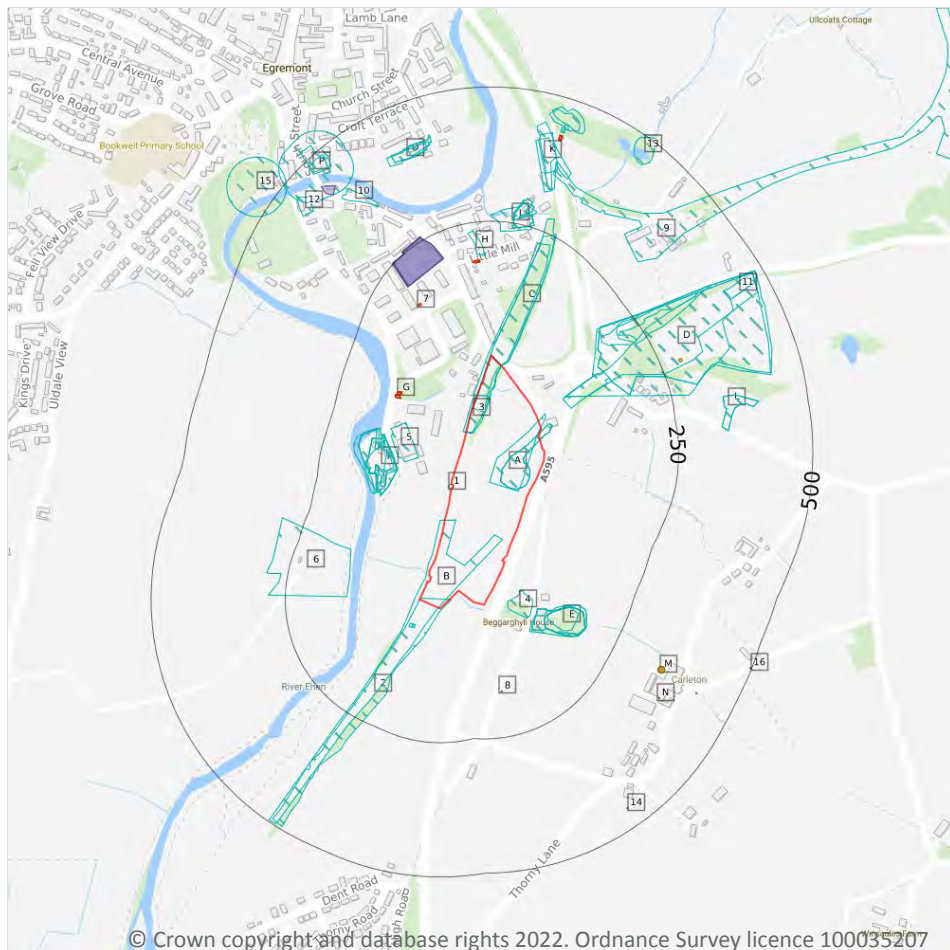
Records within 500m**0**

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

2.1 Historical industrial land uses

Records within 500m

62

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
1	On site	Unspecified Tank	1861	550975
2	On site	Railway Sidings	1926	636943
3	On site	Cuttings	1951	629773



ID	Location	Land Use	Date	Group ID
A	On site	Refuse Heap	1951	588854
A	On site	Unspecified Heap	1971	622678
A	On site	Unspecified Heap	1981	622678
B	On site	Railway Sidings	1951	618794
C	On site	Cuttings	1926	548065
C	On site	Cuttings	1948	633502
C	On site	Cuttings	1898	593540
4	36m SE	Unspecified Quarry	1861	558716
B	46m SW	Railway Building	1926	592182
B	47m SW	Railway Building	1951	592182
D	58m NE	Tramway Sidings	1926	558362
D	64m NE	Iron Ore Pit	1948	612014
D	64m NE	Railway Sidings	1948	586548
5	72m W	Unspecified Depot	1994	554061
E	91m SE	Unspecified Disused Quarry	1926	626735
E	91m SE	Unspecified Quarry	1898	600042
E	93m SE	Unspecified Disused Quarry	1951	626735
F	103m W	Paper Mill	1861	556561
F	104m W	Unspecified Factory	1971	613399
F	104m W	Unspecified Factory	1981	613399
F	104m W	Unspecified Mill	1994	620671
F	104m W	Woollen Mill	1926	637311
E	110m SE	Unspecified Disused Quarry	1994	611832
E	110m SE	Unspecified Disused Quarry	1971	611832
E	110m SE	Unspecified Disused Quarry	1981	611832
F	110m W	Woollen Mill	1951	637311
E	114m SE	Unspecified Quarry	1861	600042
F	127m W	Unspecified Mill	1898	627510



ID	Location	Land Use	Date	Group ID
6	135m W	Sewage Works	1926	553539
D	143m NE	Iron Ore Pit	1926	620905
D	175m NE	Refuse Heap	1948	613882
H	187m N	Unspecified Ground Workings	1926	581264
D	205m NE	Refuse Heap	1926	613882
J	232m N	Corn Mill	1861	553774
J	241m N	Unspecified Mill	1926	623187
J	241m N	Unspecified Mill	1898	623187
J	256m N	Unspecified Mill	1948	592517
9	319m NE	Railway Sidings	1948	586564
K	320m N	Cuttings	1948	605669
K	327m N	Cuttings	1926	597352
L	334m E	Refuse Heap	1971	630974
L	334m E	Refuse Heap	1981	630974
10	348m NW	Tannery	1861	579394
K	354m N	Cuttings	1898	639056
O	395m NW	Sawmill	1948	638419
O	398m NW	Sawmill	1926	623974
O	398m NW	Sawmill	1898	623974
O	400m N	Flint Mill	1861	576816
P	415m NW	Unspecified Mill	1948	589849
11	417m NE	Cuttings	1926	584751
12	427m NW	Police Station	1898	580950
K	435m N	Unspecified Old Shaft	1948	586833
K	442m N	Unspecified Old Shaft	1926	586834
K	442m N	Refuse Heap	1948	634780
K	444m N	Refuse Heap	1926	634780
13	452m NE	Refuse Heap	1948	588853



ID	Location	Land Use	Date	Group ID
P	454m NW	Corn Mill	1861	553773
P	465m NW	Unspecified Mill	1926	632312
15	483m NW	Unspecified Pits	1861	554836

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

12

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
8	164m S	Tank or Trough	1863	75486
D	285m E	Unspecified Tank	1924	72900
M	342m SE	Unspecified Tank	1990	77510
M	342m SE	Unspecified Tank	1990	77510
M	342m SE	Unspecified Tank	1993	77510
M	342m SE	Unspecified Tank	1993	77510
N	369m SE	Tank or Trough	1863	75535
N	375m SE	Tank or Trough	1863	75536
N	392m SE	Tank or Trough	1863	75534
N	425m SE	Tank or Trough	1863	75532
14	462m SE	Tank or Trough	1863	75487
16	496m E	Tank or Trough	1863	75533

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

15

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
G	133m W	Electricity Substation	1993	43422
G	133m W	Electricity Substation	1994	43422
G	134m W	Electricity Substation	1990	43010
G	134m W	Electricity Substation	1990	43010
G	134m W	Electricity Substation	1993	43010
G	134m W	Electricity Substation	1993	43010
G	135m W	Electricity Substation	1995	42957
7	160m NW	Electricity Substation	1995	42075
H	175m N	Electricity Substation	1993	43261
H	175m N	Electricity Substation	1994	43261
H	175m N	Electricity Substation	1995	43612
K	420m N	Electricity Substation	1995	42674
K	421m N	Electricity Substation	1982	42674
K	421m N	Electricity Substation	1993	42674
K	421m N	Electricity Substation	1994	42674

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.



2.5 Historical garages

Records within 500m

6

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 18**

ID	Location	Land Use	Date	Group ID
I	197m NW	Garage	1982	14289
I	197m NW	Garage	1993	14289
I	197m NW	Garage	1994	14289
I	197m NW	Garage	1968	13780
I	197m NW	Garage	1995	13799
P	420m NW	Garage	1961	13604

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical landfill (EA/NRW)
- Historical landfill (LA/OS)
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

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

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

1

Landfill sites identified from Local Authority records and high detail historical mapping.

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Site address	Source	Data type
C	334m E	Refuse Tip	1961 mapping	Polygon

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

2

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Details		
1	18m NE	Site Address: Disused Railway Cuttings, Egremont Bypass, St Thomas's Cross, Egremont, Cumbria Licence Holder Address: Hooton, South Wirral, Cheshire	Waste Licence: Yes Site Reference: 164 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 10/12/1991 Licence Surrender: 11/03/1993	Operator: - Licence Holder: Alfred McAlpine Construction Limited First Recorded 01/10/1991 Last Recorded: 31/10/1991
3	246m E	Site Address: Florence No.1 Mine, Scurgill Terrace, Carleton, Egremont, Cumbria Licence Holder Address: Clay Flatts, Workington, Cumbria	Waste Licence: Yes Site Reference: 116, 89, E160.64 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: NT1/L/ALC004 Licence Issue: 26/04/1982 Licence Surrender: -	Operator: Alco Waste Management Limited Licence Holder: Alco Transport Servicest Limited First Recorded 31/12/1977 Last Recorded: 06/04/2000

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



3.5 Historical waste sites

Records within 500m	0
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Waste site records derived from Local Authority planning records and high detail historical mapping.

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	6
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Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Details		
A	100m W	Site Name: J. M. Skips Brownriggs Yard Site Address: J. M. Skips Brownriggs Yard, Ennerdale Mill, Egremont, Cumbria, CA22 2PN Correspondence Address: -	Type of Site: 75kte HCI Waste Transfer Station Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JAC099 EPR reference: EA/EPR/AB3806LV/A001 Operator: Jacksons Marine Limited Waste Management licence No: 402645 Annual Tonnage: 74999	Issue Date: 03/09/2015 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
A	100m W	Site Name: J. M. Skips Brownriggs Yard Site Address: J. M. Skips Brownriggs Yard, Ennerdale Mill, Egremont, Cumbria, CA22 2PN Correspondence Address: -	Type of Site: 75kte HCI Waste Transfer Station Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: JAC099 EPR reference: EA/EPR/AB3806LV/A001 Operator: Jacksons Marine Limited Waste Management licence No: 402645 Annual Tonnage: 74999	Issue Date: 03/09/2015 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
2	207m E	Site Name: Alco Waste Management Site Address: Florence No 1 Mine, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradable Wastes Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALC004 EPR reference: EA/EPR/GP3293ZG/A001 Operator: Alco Waste Management Ltd Waste Management licence No: 57116 Annual Tonnage: 500	Issue Date: 19/09/1986 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
C	383m E	Site Name: Alco Waste Management Site Address: Florence No 1 Mine, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Landfill taking Non-Biodegradable Wastes Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALC004 EPR reference: EA/EPR/GP3293ZG/A001 Operator: Alco Waste Management Ltd Waste Management licence No: 57116 Annual Tonnage: 500	Issue Date: 19/09/1986 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
C	383m E	Site Name: Alco Waste Management Site Address: Scurgill Transfer Station, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALC008 EPR reference: EA/EPR/KP3293ZF/A001 Operator: Alco Waste Management Ltd Waste Management licence No: 57149 Annual Tonnage: 755	Issue Date: 22/03/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: 17/01/2000 Cancelled Date: - Status: Expired



ID	Location	Details		
C	383m E	Site Name: Alco Waste Management Site Address: Scurgill Transfer Station, Scurgill Terrace, Egremont, Cumbria, CA22 2NS Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: ALC008 EPR reference: EA/EPR/KP3293ZF/A001 Operator: Alco Waste Management Ltd Waste Management licence No: 57149 Annual Tonnage: 755	Issue Date: 22/03/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: 17/01/2000 Cancelled Date: - Status: Expired

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

3.7 Waste exemptions

Records within 500m	26
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Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 24**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	117m W	Ennerdale Mill Brownrigg Yard Cumbria CA22 2PN	EPR/UE5786V C/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
B	196m W	-	WEX134330	Using waste exemption	Not on a farm	Use of waste in construction
B	196m W	-	WEX133054	Disposing of waste exemption	Not on a farm	Deposit of waste from dredging of inland waters
D	365m SE	Low Thorny EGREMONT Cumbria CA22 2NU	EPR/PH0477Y X/A001	Using waste exemption	Both agricultural and non-agricultural waste	Use of waste in construction
D	365m SE	Low Thorny EGREMONT Cumbria CA22 2NU	EPR/PH0477Y X/A001	Using waste exemption	Both agricultural and non-agricultural waste	Burning of waste as a fuel in a small appliance



ID	Location	Site	Reference	Category	Sub-Category	Description
D	370m SE	LOW THORNY FARM, LOW THORNY, CARLETON, EGREMONT, CA22 2NU	WEX069291	Using waste exemption	On a farm	Use of waste in construction
D	370m SE	LOW THORNY FARM, LOW THORNY, CARLETON, EGREMONT, CA22 2NU	WEX069291	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Deposit of waste from dredging of inland waters
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Disposing of waste exemption	Non-Agricultural Waste Only	Burning waste in the open
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste aerosol cans
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste at a water treatment works
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of waste at a waste water treatment works
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Treating waste exemption	Non-Agricultural Waste Only	Screening and blending of waste
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction

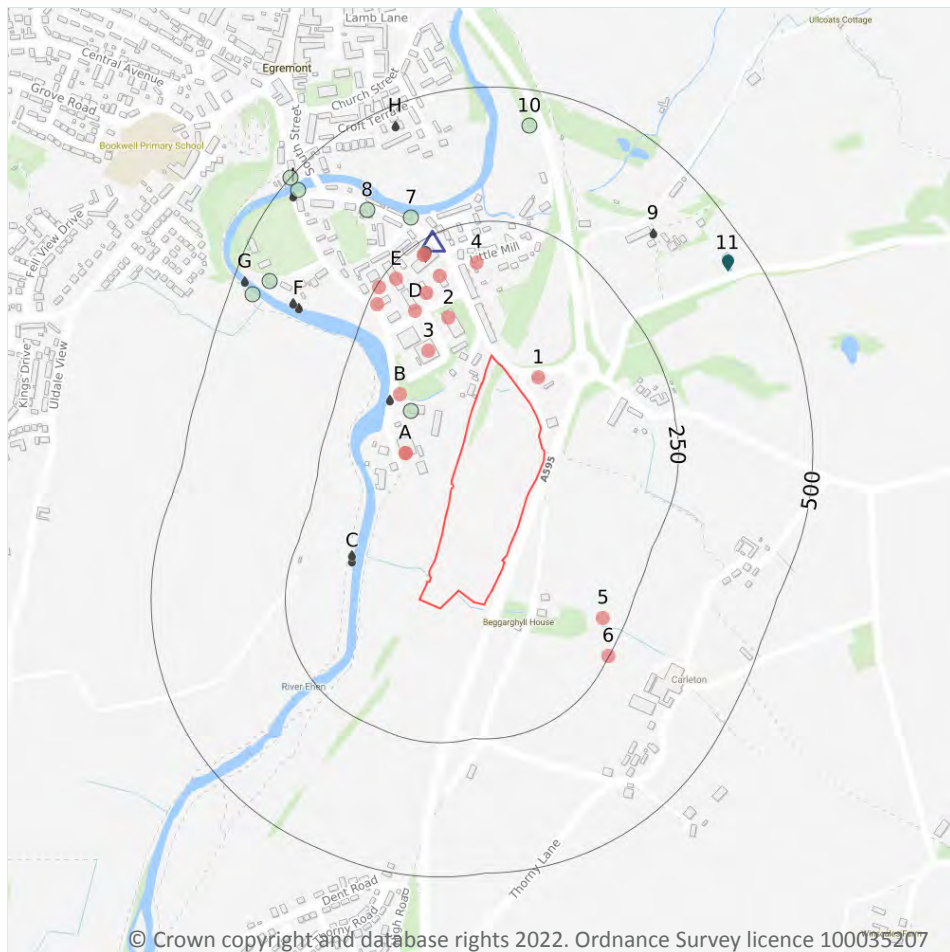


ID	Location	Site	Reference	Category	Sub-Category	Description
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Using waste exemption	Non-Agricultural Waste Only	Spreading waste on non-agricultural land to confer benefit
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Using waste exemption	Non-Agricultural Waste Only	Use of mulch
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Using waste exemption	Non-Agricultural Waste Only	Spreading of plant matter to confer benefit
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Using waste exemption	Non-Agricultural Waste Only	Use of baled end-of-life tyres in construction
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste derived biodiesel as fuel
E	416m NW	VolkerStevin Site Bridge End Cumbria CA22 2RE	EPR/CE5755ED /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste for a specified purpose
F	423m E	LOW THORNY FARM, LOW THORNY, CARLETON, EGREMONT, CA22 2NU	WEX218916	Using waste exemption	On a farm	Use of waste in construction
F	423m E	LOW THORNY FARM, LOW THORNY, CARLETON, EGREMONT, CA22 2NU	WEX218916	Using waste exemption	On a farm	Burning of waste as a fuel in a small appliance

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

17

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Company	Address	Activity	Category
1	41m NE	St Thomas Cross Garage Ltd	Egremont, Cumbria, CA22 2RW	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	98m W	S H Brownrigg Coaches	Ennerdale Mill, Egremont, Cumbria, CA22 2PN	Vehicle Hire and Rental	Hire Services



ID	Location	Company	Address	Activity	Category
A	98m W	J M Skip Hire Within Brownrigg Yard	Ennerdale Mill, Egremont, Cumbria, CA22 2PN	Construction and Tool Hire	Hire Services
2	106m NW	Thomas Graham	Unit 9, Bridge End Industrial Estate, Egremont, Cumbria, CA22 2RD	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
3	113m W	J F Nuclear	Unit 14, Bridge End Industrial Estate, Egremont, Cumbria, CA22 2RD	Industrial Engineers	Engineering Services
B	137m W	Electricity Sub Station	Cumbria, CA22	Electrical Features	Infrastructure and Facilities
D	164m NW	Electricity Sub Station	Cumbria, CA22	Electrical Features	Infrastructure and Facilities
D	169m NW	Sunbelt Rentals Ltd	Unit 8 Bridge End Industrial Estate, Bridge End Road, Egremont, Cumbria, Cumbria, CA22 2RD	Construction and Tool Hire	Hire Services
4	176m N	Electricity Sub Station	Cumbria, CA22	Electrical Features	Infrastructure and Facilities
D	177m NW	Lloyds British Testing Plc	Unit 7b, Bridge End Industrial Estate, Egremont, Cumbria, CA22 2RD	Lifting and Handling Equipment	Industrial Products
5	208m SE	Beggargill Quarry (Disused)	Cumbria, CA22	Unspecified Quarries Or Mines	Extractive Industries
D	225m NW	B P Car Wash	Bridge End, Egremont, Cumbria, CA22 2RQ	Vehicle Cleaning Services	Personal, Consumer and Other Services
D	226m NW	BP Service Station	Bridgeend Garagehenry Graham, Bridge End, Egremont, Cumbria, Cumbria, CA22 2RQ	Petrol and Fuel Stations	Road and Rail
E	228m NW	Warrior Embroidery	Unit 6, Bridge End Industrial Estate, Egremont, Cumbria, CA22 2RD	Textiles, Fabrics, Silk and Machinery	Industrial Products
E	234m NW	Delkia	Unit 2g, Bridge End Industrial Estate, Egremont, Cumbria, CA22 2RD	Electrical and Electronic Engineers	Engineering Services
E	245m NW	Industrial Estate	Cumbria, CA22	Business Parks and Industrial Estates	Industrial Features
6	248m SE	Wind Turbine	Cumbria, CA22	Energy Production	Industrial Features

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Company	Address	LPG	Status
D	240m NW	BP	Bridge End, Egremont, Cumbria, CA22 2RQ	No	Open

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

2

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

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Address	Details	
D	224m NW	Bridge End Garage, Egremont, Cumbria, CA22 2RQ	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified
11	450m NE	Egremont Mining Co. Ltd, Florence Mine, Egremont, CA22 2NR	Process: Mine Status: Current Permit Permit Type: Part B	Enforcement: No Enforcements Notified Date of enforcement: No Enforcements Notified Comment: No Enforcements Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0
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Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

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

4.13 Licensed Discharges to controlled waters

Records within 500m	22
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Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 31**

ID	Location	Address	Details	
C	144m NW	PICKET HOW FARM SSO, PICKET HOW FARM, EGREMONT, CUMBRIA, CA22 2UD	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017470089 Permit Version: 4 Receiving Water: RIVER EHEN	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 04/12/2006 Effective Date: 04/12/2006 Revocation Date: 28/05/2018
C	144m NW	PICKET HOW FARM SSO, PICKET HOW FARM, EGREMONT, CUMBRIA, CA22 2UD	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017470089 Permit Version: 5 Receiving Water: RIVER EHEN	Status: VARIED UNDER EPR 2010 Issue date: 29/05/2018 Effective Date: 29/05/2018 Revocation Date: -



ID	Location	Address	Details	
C	144m NW	PICKET HOW FARM SSO, PICKET HOW FARM, EGREMONT, CUMBRIA, CA22 2UD	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017470089 Permit Version: 3 Receiving Water: RIVER EHEN	Status: VARIED BY APPLICATION - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 28/05/2004 Effective Date: 28/05/2004 Revocation Date: 04/12/2006
C	147m W	PICKET HOW FARM SSO, PICKET HOW FARM, EGREMONT, CUMBRIA, CA22 2UD	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017470089 Permit Version: 1 Receiving Water: RIVER EHEN	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994
C	147m W	PICKET HOW FARM SSO, PICKET HOW FARM, EGREMONT, CUMBRIA, CA22 2UD	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 017470089 Permit Version: 2 Receiving Water: RIVER EHEN	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 27/05/2004
B	152m W	BRIDGE END IND ESTATE PS, ENNERDALE MILL, OFF BRIDGE END INDUSTRIAL ESTATE, EGREMONT, CUMBRIA, CA22 2PN	Effluent Type: MISCELLANEOUS DISCHARGES - EMERGENCY DISCHARGES Permit Number: 01COP0016 Permit Version: 1 Receiving Water: RIVER EHEN	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 01/01/1995 Effective Date: 01/01/1995 Revocation Date: 22/09/2005
B	152m W	BRIDGE END IND ESTATE PS, ENNERDALE MILL, OFF BRIDGE END INDUSTRIAL ESTATE, EGREMONT, CUMBRIA, CA22 2PN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0016 Permit Version: 2 Receiving Water: RIVER EHEN	Status: CONSENT CURRENTLY UNDER APPEAL Issue date: 23/09/2005 Effective Date: 23/09/2005 Revocation Date: 09/10/2018
B	152m W	BRIDGE END IND ESTATE PS, ENNERDALE MILL, OFF BRIDGE END INDUSTRIAL ESTATE, EGREMONT, CUMBRIA, CA22 2PN	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 01COP0016 Permit Version: 2 Receiving Water: RIVER EHEN	Status: CONSENT CURRENTLY UNDER APPEAL Issue date: 23/09/2005 Effective Date: 23/09/2005 Revocation Date: 09/10/2018
B	152m W	BRIDGE END IND ESTATE PS, ENNERDALE MILL, OFF BRIDGE END INDUSTRIAL ESTATE, EGREMONT, CUMBRIA, CA22 2PN	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0016 Permit Version: 3 Receiving Water: RIVER EHEN	Status: VARIED UNDER EPR 2010 Issue date: 10/10/2018 Effective Date: 10/10/2018 Revocation Date: -



ID	Location	Address	Details	
B	152m W	BRIDGE END IND ESTATE PS, ENNERDALE MILL, OFF BRIDGE END INDUSTRIAL ESTATE, EGREMONT, CUMBRIA, CA22 2PN	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: 01COP0016 Permit Version: 3 Receiving Water: RIVER EHEN	Status: VARIED UNDER EPR 2010 Issue date: 10/10/2018 Effective Date: 10/10/2018 Revocation Date: -
F	368m W	EHEN LODGE & HERON GARTH, BLEACH GREEN, EGREMONT, CUMBRIA, CA22 2NL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 017490376 Permit Version: 1 Receiving Water: GROUNDWATER & EHEN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2003 Effective Date: 31/03/2003 Revocation Date: -
F	368m W	EHEN LODGE & HERON GARTH, BLEACH GREEN, EGREMONT, CUMBRIA, CA22 2NL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 017490376 Permit Version: 1 Receiving Water: GROUNDWATER & EHEN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2003 Effective Date: 31/03/2003 Revocation Date: -
9	374m NE	WINDER MINE, FLORENCE MINE, EGREMONT, CUMBRIA	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 017490228 Permit Version: 1 Receiving Water: RIVER EHEN	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/04/1991 Revocation Date: -
F	380m W	EHEN LODGE & HERON GARTH, BLEACH GREEN, EGREMONT, CUMBRIA, CA22 2NL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 017490376 Permit Version: 1 Receiving Water: GROUNDWATER & EHEN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2003 Effective Date: 31/03/2003 Revocation Date: -
F	380m W	EHEN LODGE & HERON GARTH, BLEACH GREEN, EGREMONT, CUMBRIA, CA22 2NL	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 017490376 Permit Version: 1 Receiving Water: GROUNDWATER & EHEN	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2003 Effective Date: 31/03/2003 Revocation Date: -
H	463m NW	EGREMONT ULLCOATS STW, CUMBRIA	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470026 Permit Version: 1 Receiving Water: TRIB KIRK BECK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 28/12/1979 Revocation Date: 30/01/1985



ID	Location	Address	Details	
H	463m NW	EGREMONT ULLCOATS STW, CUMBRIA	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470026 Permit Version: 2 Receiving Water: TRIB KIRK BECK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 31/01/1985 Revocation Date: 31/10/1985
H	463m NW	EGREMONT ULLCOATS STW, CUMBRIA	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 017470026 Permit Version: 3 Receiving Water: TRIB KIRK BECK	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/11/1985 Revocation Date: -
I	474m NW	SYPHON, EGREMONT, COPELAND, CUMBRIA	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0026 Permit Version: 1 Receiving Water: RIVER EHEN	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010
I	474m NW	SYPHON, EGREMONT, COPELAND, CUMBRIA	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0026 Permit Version: 2 Receiving Water: RIVER EHEN	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 11/04/2014
G	479m W	BARNEY SCAR, EGREMONT, COPELAND, CUMBRIA	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0025 Permit Version: 1 Receiving Water: RIVER EHEN	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010
G	479m W	BARNEY SCAR, EGREMONT, COPELAND, CUMBRIA	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01COP0025 Permit Version: 2 Receiving Water: RIVER EHEN	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 11/04/2014

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



4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m

0

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

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

4.17 List 2 Dangerous Substances

Records within 500m

0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

8

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

Features are displayed on the Current industrial land use map on **page 31**



ID	Location	Details	
B	109m W	Incident Date: 24/04/2002 Incident Identification: 74285 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
7	297m NW	Incident Date: 06/08/2001 Incident Identification: 22356 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
8	356m NW	Incident Date: 24/02/2002 Incident Identification: 60232 Pollutant: Oils and Fuel Pollutant Description: Unidentified Oil	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
10	433m N	Incident Date: 20/05/2004 Incident Identification: 258433 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Effects on Humans	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
G	435m W	Incident Date: 22/12/2001 Incident Identification: 49369 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	456m W	Incident Date: 16/05/2003 Incident Identification: 158877 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
I	474m NW	Incident Date: 17/10/2002 Incident Identification: 115293 Pollutant: Sewage Materials Pollutant Description: Grey Water	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
I	499m NW	Incident Date: 06/06/2002 Incident Identification: 83135 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m

0

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



available.

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

4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m

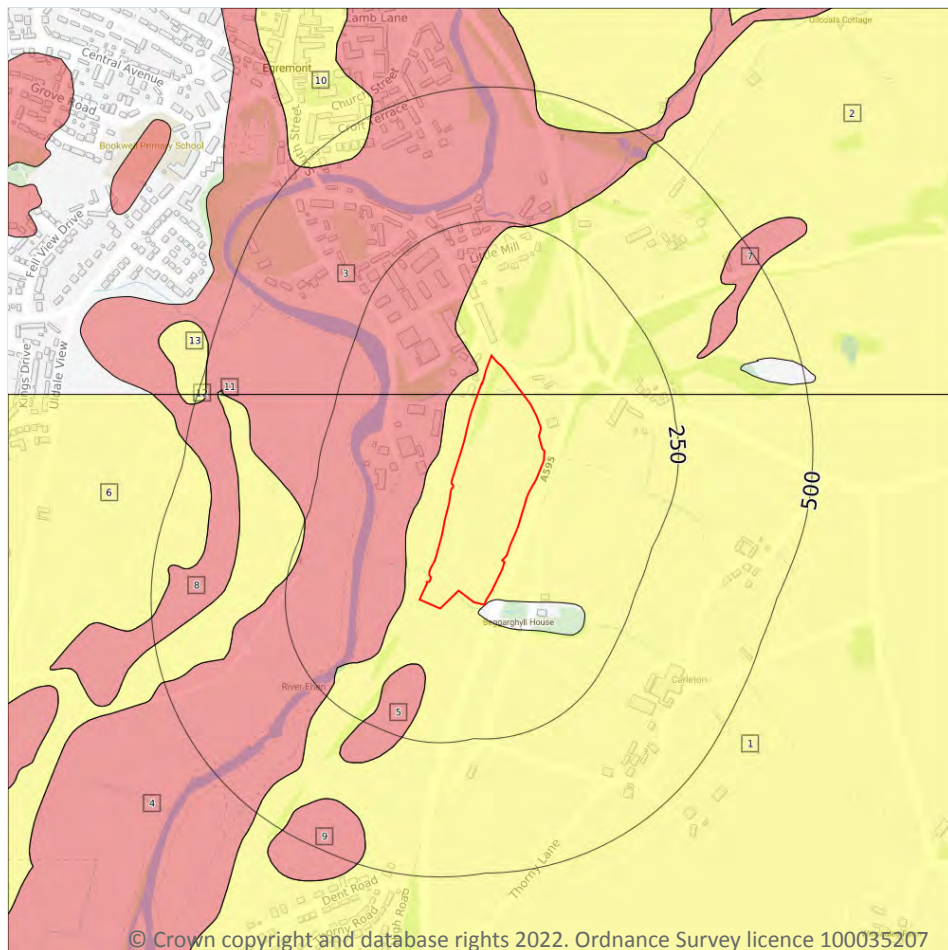
0

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

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



5 Hydrogeology - Superficial aquifer



- Site Outline**
- Search buffers in metres (m)
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive
 - Unknown

5.1 Superficial aquifer

Records within 500m

13

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 42**

ID	Location	Designation	Description
1	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	On site	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

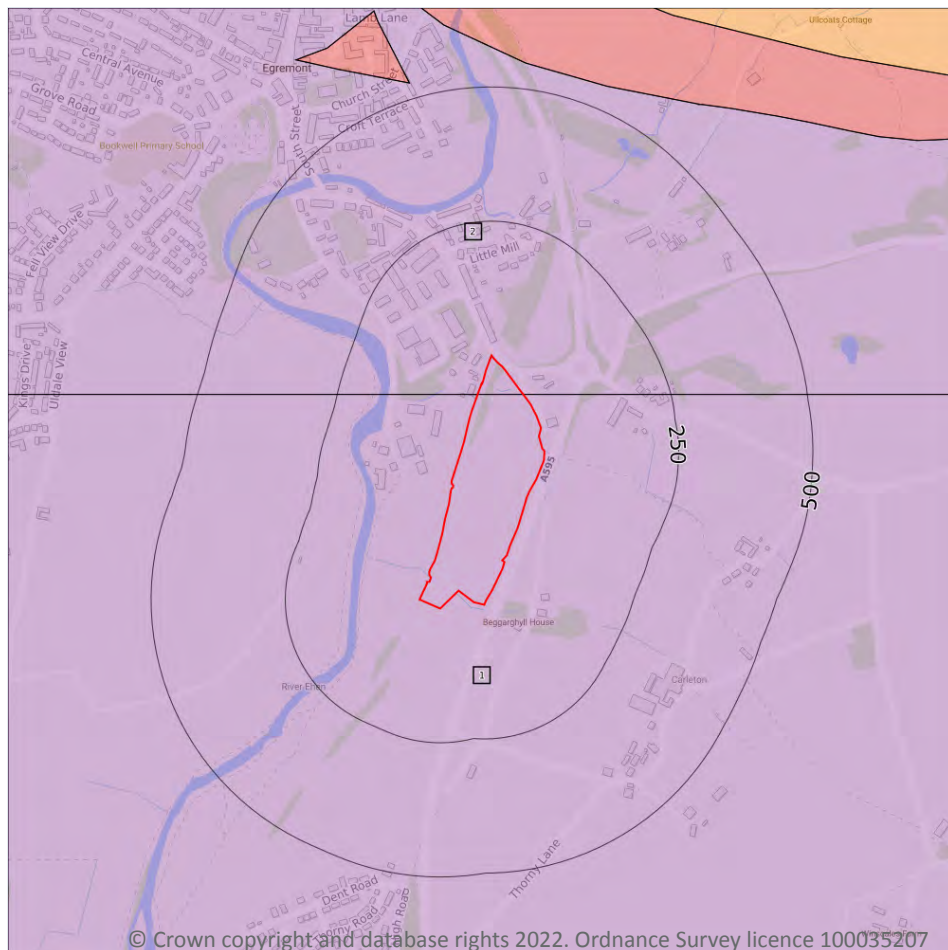


ID	Location	Designation	Description
3	14m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	31m W	Secondary 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	112m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
6	239m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
7	319m 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	351m W	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	405m SW	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
10	450m NW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
11	453m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
12	485m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
13	485m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

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



Bedrock aquifer



- Site Outline**
- Search buffers in metres (m)**
- Principal
 - Secondary A
 - Secondary B
 - Secondary Undifferentiated
 - Unproductive

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 44**

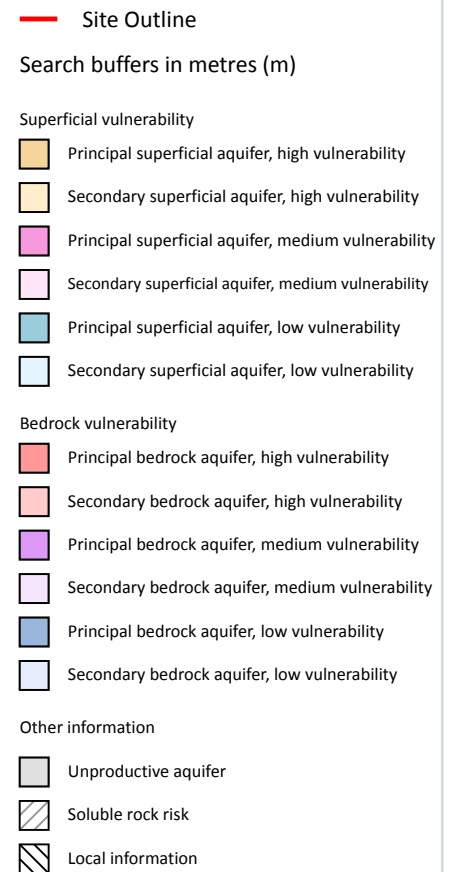
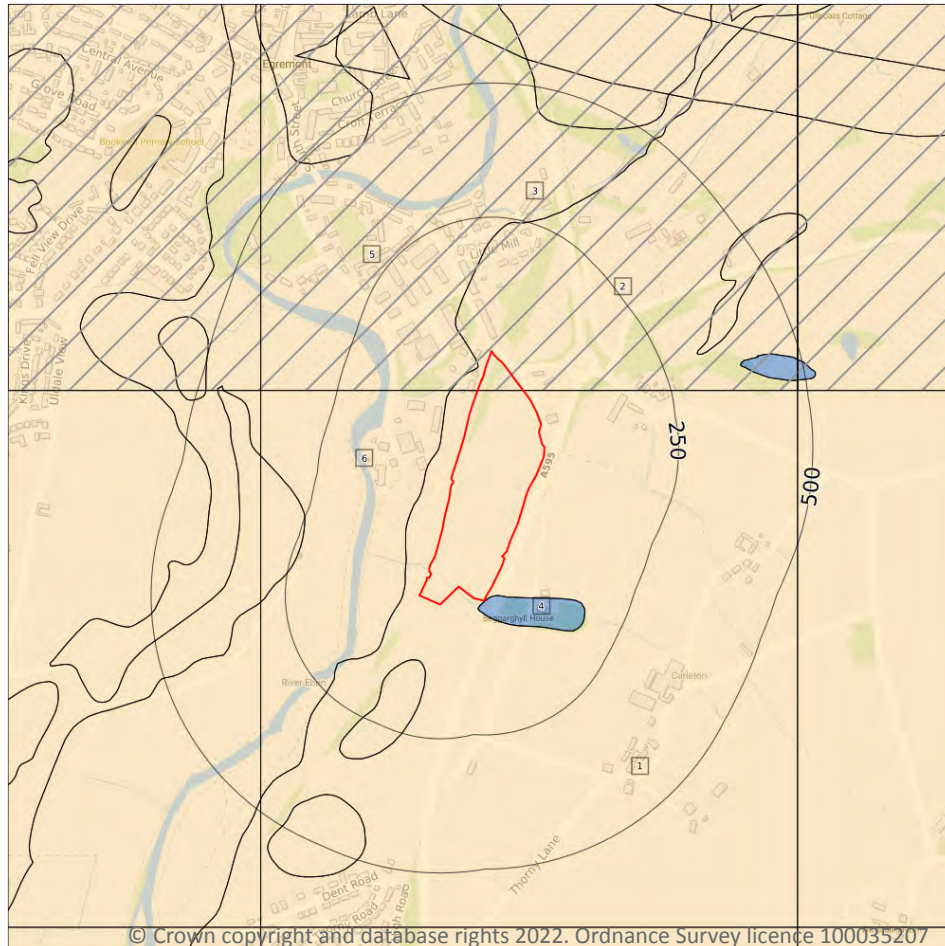
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers



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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

5

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 46**



ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed
2	On site	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
4	1m SE	Summary Classification: Principal bedrock aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: - Aquifer type: - Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed
5	14m W	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Principal Flow mechanism: Well connected fractures
6	30m W	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: >550mm/year	Vulnerability: High Aquifer type: Secondary Thickness: >10m Patchiness value: >90% Recharge potential: Low	Vulnerability: Low Aquifer type: Principal Flow mechanism: Mixed

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

1

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.



ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
3	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	14.000000000000002%

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

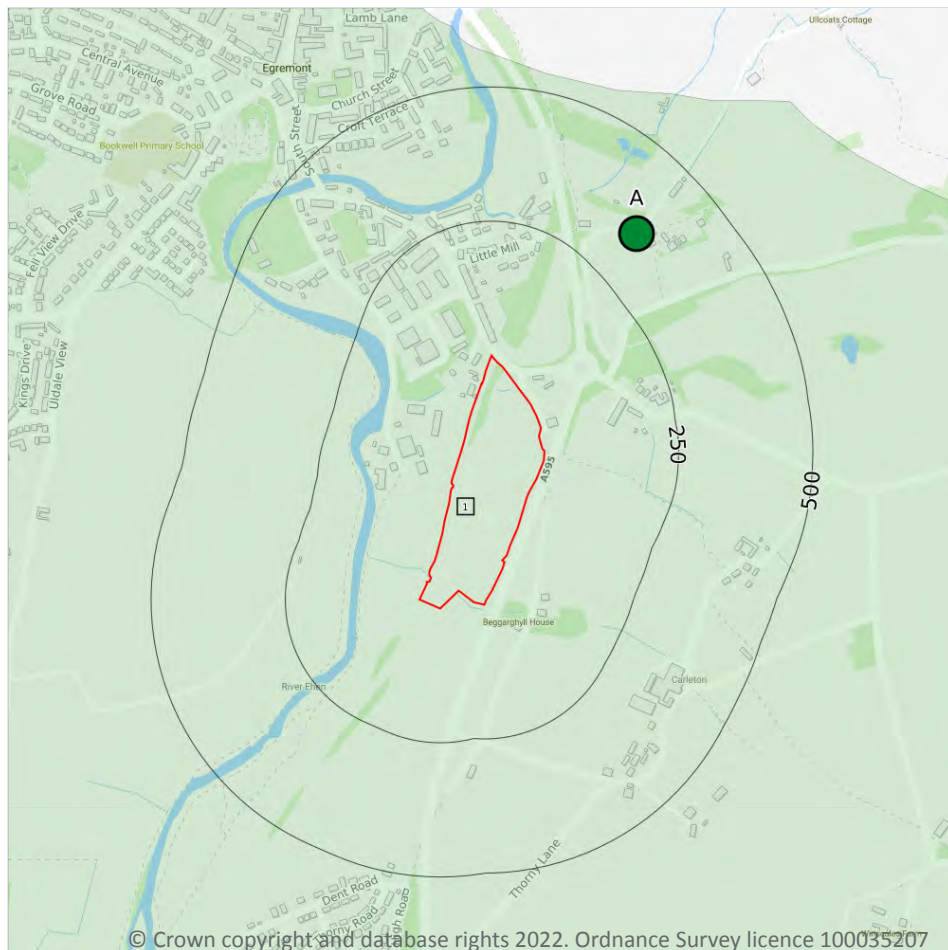
Records on site	0
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This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

This data is sourced from the British Geological Survey and the Environment Agency.



Abstractions and Source Protection Zones



- Site Outline
- Search buffers in metres (m)
- 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
- Source Protection Zone 1c
Inner catchment - confined aquifer
- Source Protection Zone 2c
Outer catchment - confined aquifer
- Source Protection Zone 3c
Total catchment - confined aquifer
- Drinking water abstraction licences
Polygon features
- Drinking water abstraction licences
Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m

29

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 49**



ID	Location	Details	
A	352m NE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	352m NE	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	352m NE	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	352m NE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	352m NE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -



ID	Location	Details	
A	352m NE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
A	352m NE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
A	352m NE	Status: Historical Licence No: 2774005010 Details: Transfer between Sources (Pre Water Act 2003) Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1086m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: GULLEY FLATTS - EGREMONT BOREHOLE C Data Type: Point Name: United Utilities Water Ltd Easting: 300222 Northing: 509780	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -
-	1320m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BLACK LING - EGREMONT BOREHOLE D Data Type: Point Name: United Utilities Water Ltd Easting: 299975 Northing: 509615	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -



ID	Location	Details	
-	1410m SW	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: MERRY HILL - EGREMONT BOREHOLE A Data Type: Point Name: United Utilities Water Ltd Easting: 300473 Northing: 508472	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Process water Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Transfer between sources Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1480m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Transfer between Sources (Pre Water Act 2003) Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -



ID	Location	Details	
-	1480m SE	Status: Active Licence No: 2774005010 Details: Evaporative Cooling Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 3,504,000 Max Daily Volume (m ³): 14,400 Original Application No: 6285 Original Start Date: 28/11/1987 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2007 Version End Date: -
-	1480m SE	Status: Active Licence No: 2774005010 Details: Process Water Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 3,504,000 Max Daily Volume (m ³): 14,400 Original Application No: 6285 Original Start Date: 28/11/1987 Expiry Date: - Issue No: 103 Version Start Date: 01/04/2007 Version End Date: -
-	1907m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: KELLHEAD - EGREMONT BOREHOLE B Data Type: Point Name: United Utilities Water Ltd Easting: 299525 Northing: 508910	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	0
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Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

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



5.8 Potable abstractions

Records within 2000m

10

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 49**

ID	Location	Details	
A	352m NE	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "FLORENCE MINE AT EGREMONT,CUMBRIA" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 301700 Northing: 510300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
A	352m NE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: FLORENCE MINE AT EGREMONT,CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 301700 Northing: 510300	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1086m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: GULLEY FLATTS - EGREMONT BOREHOLE C Data Type: Point Name: United Utilities Water Ltd Easting: 300222 Northing: 509780	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -
-	1320m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: BLACK LING - EGREMONT BOREHOLE D Data Type: Point Name: United Utilities Water Ltd Easting: 299975 Northing: 509615	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -



ID	Location	Details	
-	1410m SW	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: MERRY HILL - EGREMONT BOREHOLE A Data Type: Point Name: United Utilities Water Ltd Easting: 300473 Northing: 508472	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BECKERMET MINE AT BECKERMET, CUMBRIA B\$461" Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA B\$461 Data Type: Point Name: BRITISH NUCLEAR FUELS PLC Easting: 302500 Northing: 508600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 100 Version Start Date: 28/11/1987 Version End Date: -



ID	Location	Details	
-	1480m SE	Status: Historical Licence No: 2774005010 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BECKERMET MINE AT BECKERMET, CUMBRIA Data Type: Point Name: NUCLEAR DECOMMISSIONING AUTHORITY Easting: 302500 Northing: 508600	Annual Volume (m ³): 4830125 Max Daily Volume (m ³): 15911 Original Application No: - Original Start Date: 28/11/1987 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2006 Version End Date: -
-	1907m W	Status: Active Licence No: NW/074/0005/003 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: KELLHEAD - EGREMONT BOREHOLE B Data Type: Point Name: United Utilities Water Ltd Easting: 299525 Northing: 508910	Annual Volume (m ³): 3,650,000 Max Daily Volume (m ³): 11,000 Original Application No: NPS/WR/035035 Original Start Date: 21/07/2015 Expiry Date: 31/03/2026 Issue No: 3 Version Start Date: 04/02/2021 Version End Date: -

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

5.9 Source Protection Zones

Records within 500m	1
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 49**

ID	Location	Type	Description
1	On site	3	Total catchment

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

5.10 Source Protection Zones (confined aquifer)

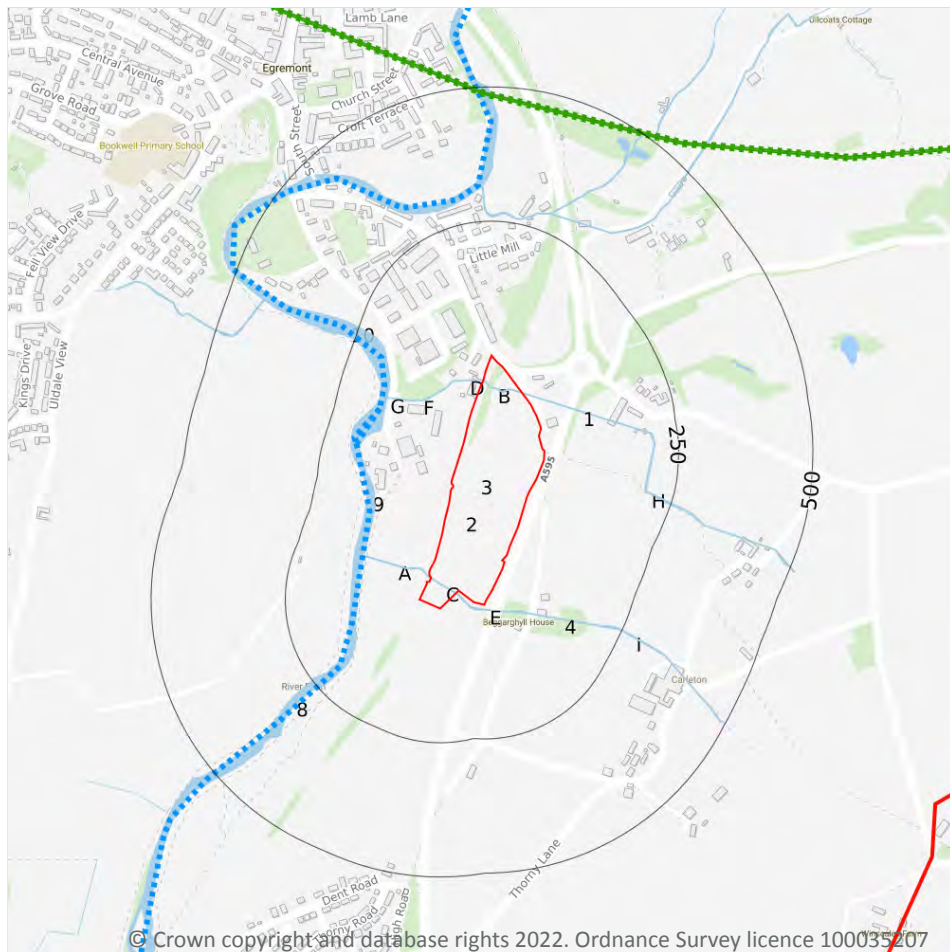
Records within 500m	0
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Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

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



6 Hydrology



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

18

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

Features are displayed on the Hydrology map on **page 60**

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



ID	Location	Type of water feature	Ground level	Permanence	Name
A	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	On site	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
C	On site	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
D	On site	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
E	3m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	52m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
F	59m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
4	72m SE	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
8	121m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ehen
9	134m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ehen
G	146m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
10	165m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ehen
G	165m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ehen



ID	Location	Type of water feature	Ground level	Permanence	Name
G	166m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ehen
G	174m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ehen
H	194m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
I	212m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	9
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Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 60**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
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The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 60**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
3	On site	River	Ehen (lower)	GB112074069980	Ehen-Calder	South West Lakes

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



6.4 WFD Surface water bodies

Records identified

1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 60**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
7	117m W	River	Ehen (lower)	GB112074069980	Moderate	Fail	Good	2019

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

6.5 WFD Groundwater bodies

Records on site

1

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

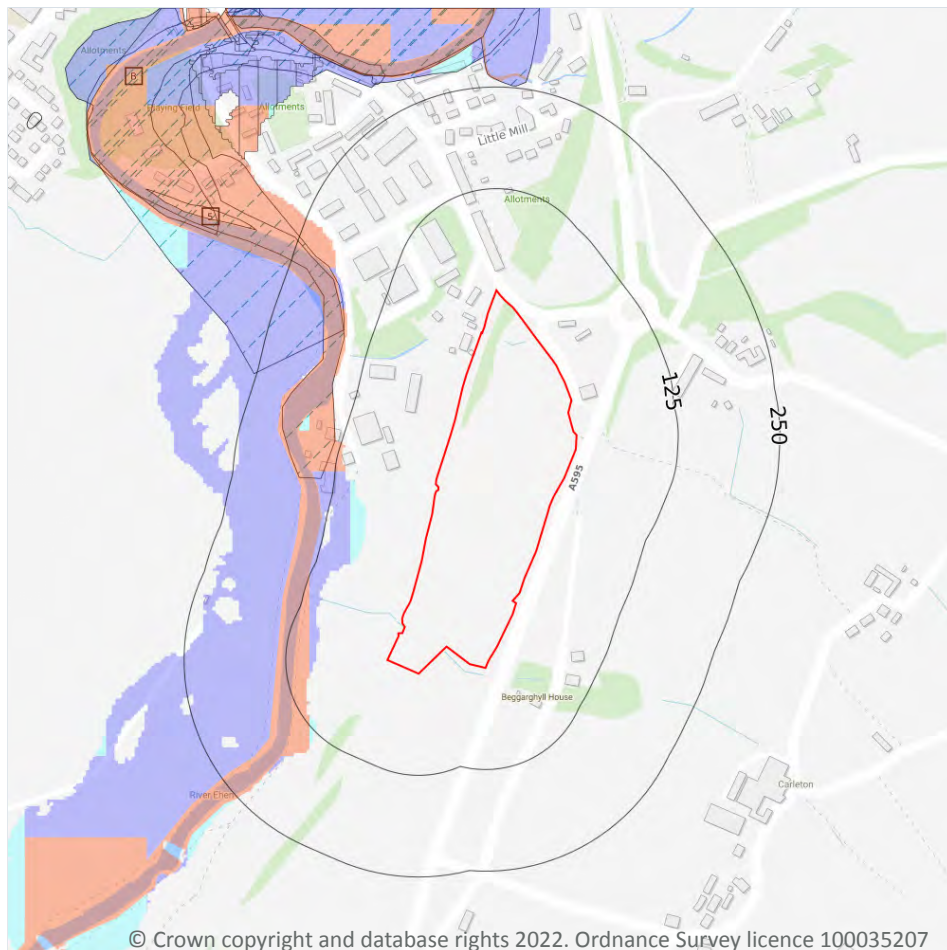
Features are displayed on the Hydrology map on **page 60**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	West Cumbria Permo-Triassic sandstone aquifers	GB41201G102000	Good	Good	Good	2019

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



7 River and coastal flooding



- Site Outline
- Search buffers in metres (m)
- 125
- 250
- River and coastal flooding:
- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m

0

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

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

7.2 Historical Flood Events

Records within 250m

2

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

Features are displayed on the River and coastal flooding map on **page 64**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
B	133m W	Flooding 05_11_1999	1999-11-05 1999-11-05	Main river	Channel capacity exceeded (no raised defences)	Fluvial
5	160m W	Egremont November 2009 Flooding	2009-11-19 2009-11-22	Main river	Channel capacity exceeded (no raised defences)	Fluvial

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

7.3 Flood Defences

Records within 250m

0

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

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



7.5 Flood Storage Areas

Records within 250m

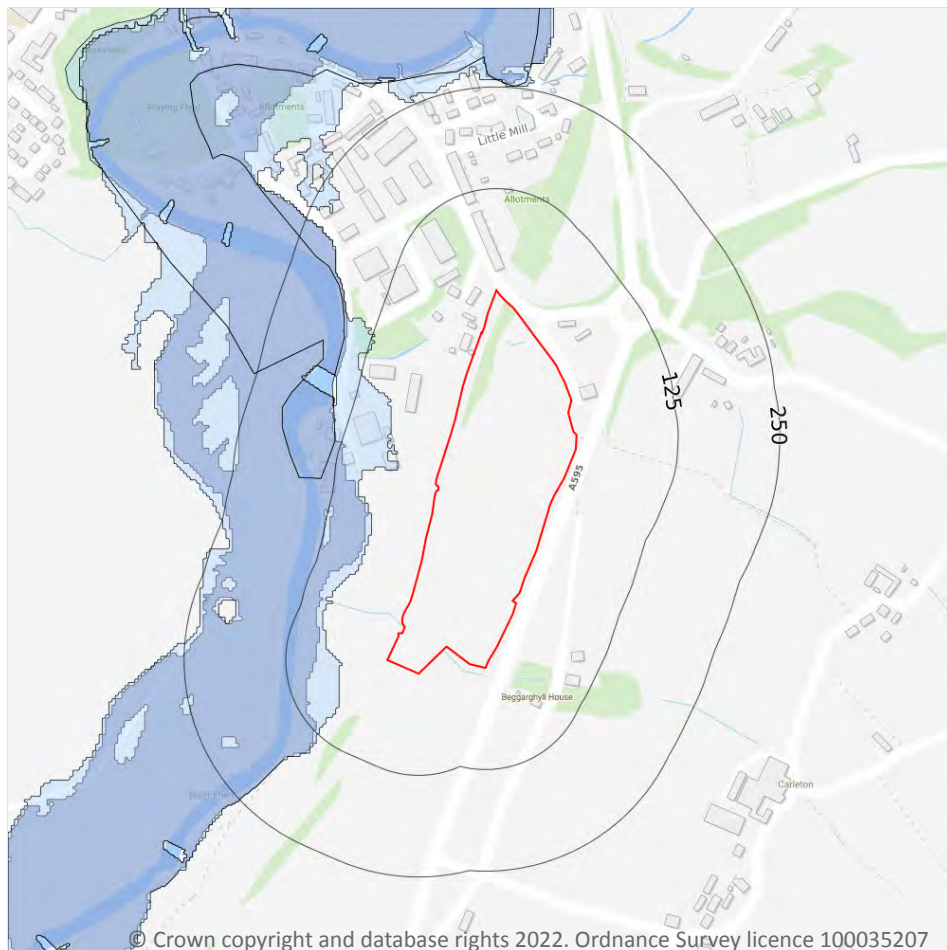
0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

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



River and coastal flooding - Flood Zones



- Site Outline
- Search buffers in metres (m)
- Flood zone 2
- Flood zone 3

7.6 Flood Zone 2

Records within 50m

1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on **page 64**

Location	Type
49m W	Zone 2 - (Fluvial /Tidal Models)

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

7.7 Flood Zone 3

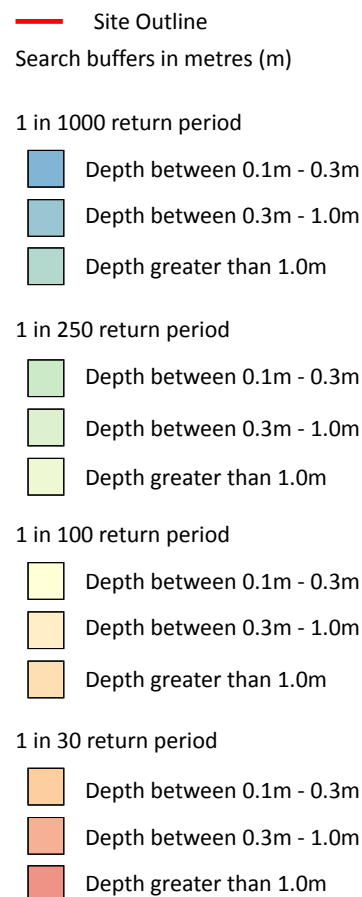
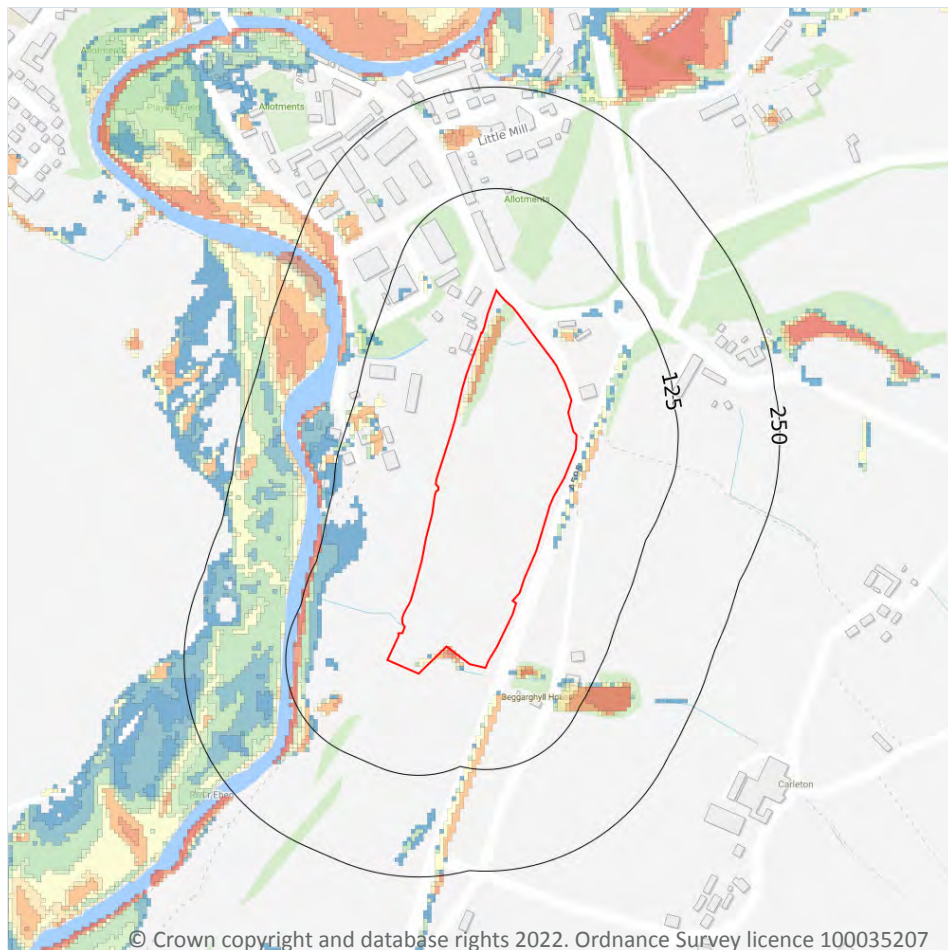
Records within 50m
0

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, Greater than 1.0m

Highest risk within 50m

1 in 30 year, Greater than 1.0m

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

Features are displayed on the Surface water flooding map on **page 69**

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

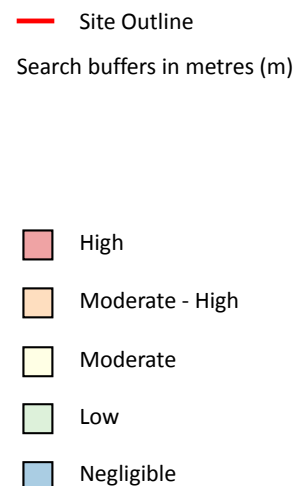
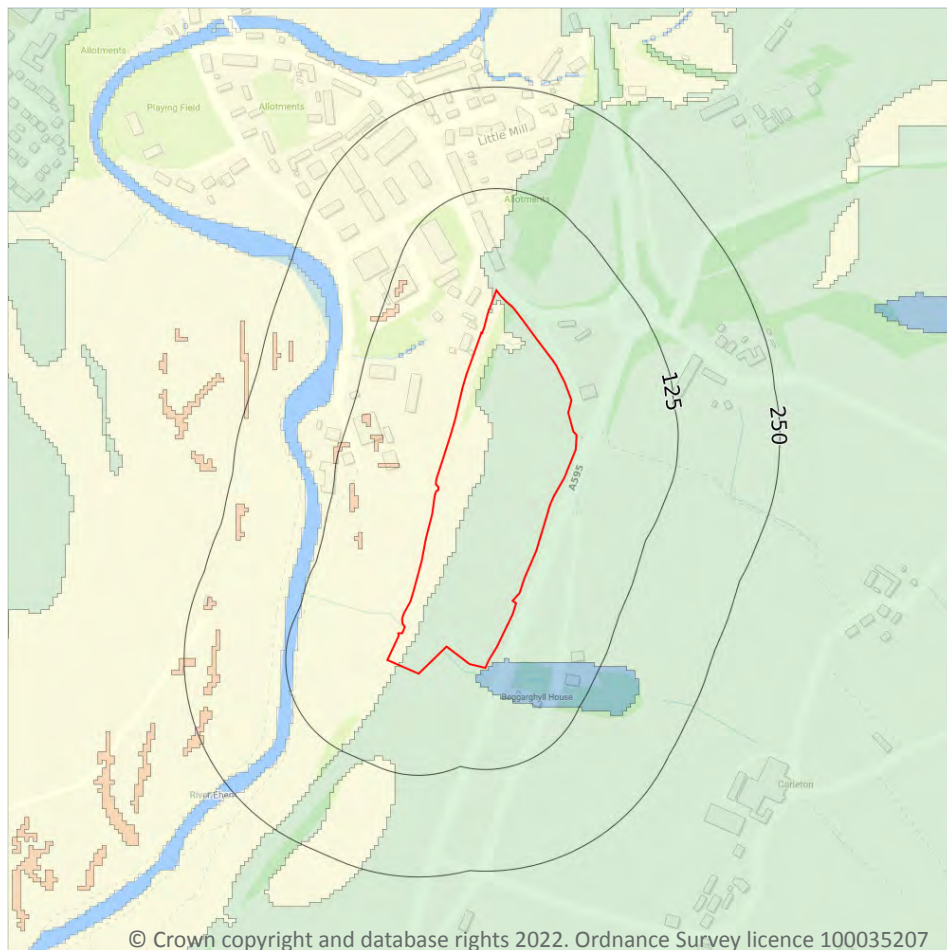
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Greater than 1.0m

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

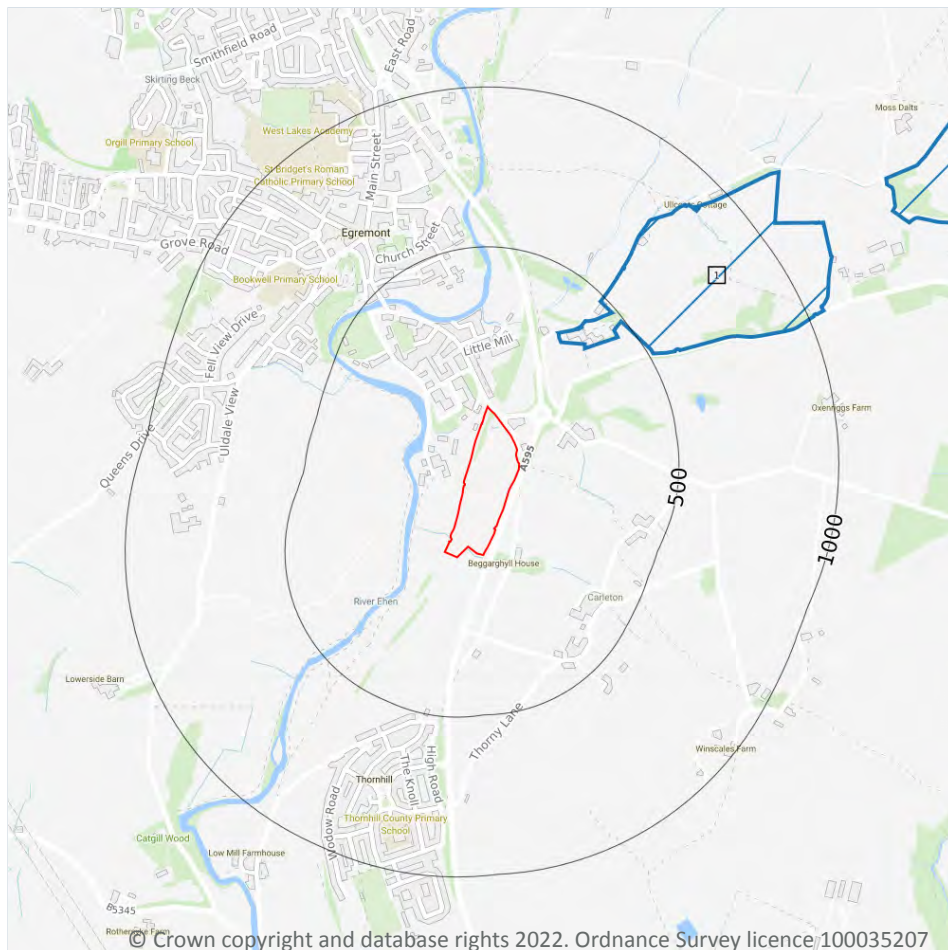
Moderate-High

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 71**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Sites of Special Scientific Interest (SSSI)
- Designated Ancient Woodland

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

3

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on **page 72**

ID	Location	Name	Data source
1	305m NE	Florence Mine	Natural England



ID	Location	Name	Data source
2	1386m NE	Black Moss	Natural England
-	1724m SE	Haile Great Wood	Natural England

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m

0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m

0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.



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

10.6 Local Nature Reserves (LNR)

Records within 2000m

0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

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

10.7 Designated Ancient Woodland

Records within 2000m

2

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on **page 72**

ID	Location	Name	Woodland Type
-	1724m SE	Great Wood/+	Ancient & Semi-Natural Woodland
-	1801m E	Great Wood/+	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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



10.9 Forest Parks

Records within 2000m

0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

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

10.11 Green Belt

Records within 2000m

0

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

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

10.12 Proposed Ramsar sites

Records within 2000m

0

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

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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



10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

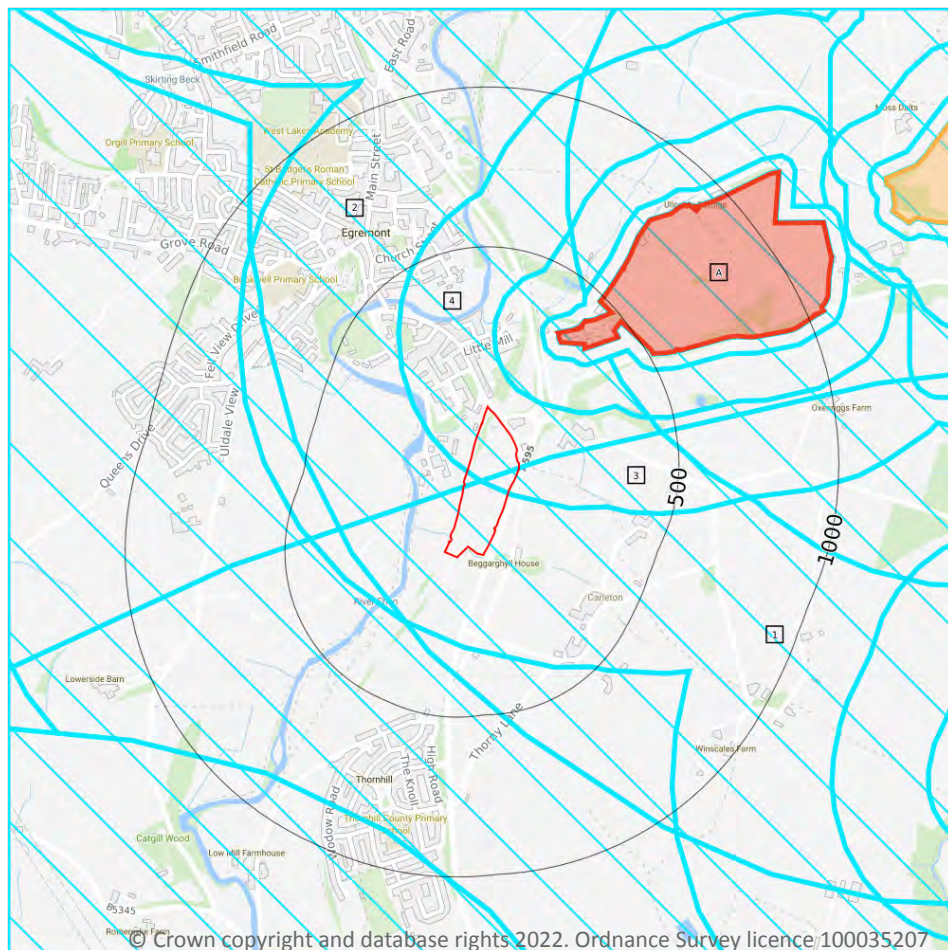
Records within 2000m

0

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

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

SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

4

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 77**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 500 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.
2	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t). Combustion - General combustion processes >20mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Landfill. incl: inert landfill, non-hazardous landfill, hazardous landfill. Composting - Any composting proposal with more than 500 tonnes maximum annual operational throughput. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.
3	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any development that could cause air pollution (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores). Combustion - All general combustion processes. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management. Composting - Any composting proposal. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.



ID	Location	Type of developments requiring consultation
4	On site	Infrastructure - Pipelines, pylons and overhead cables. any transport proposal including road, rail and by water (excluding routine maintenance). airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any development that could cause air pollution (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores). Combustion - All general combustion processes. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Waste - Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management. Composting - Any composting proposal. incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management. Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	5
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on **page 77**

ID: A
 Location: 305m NE
 SSSI name: Florence Mine
 Unit name: 1
 Broad habitat: Earth Heritage
 Condition: Destroyed
 Reportable features:

Feature name	Feature condition	Date of assessment
EU - Mineralogy	Destroyed	09/01/2009



ID: 28
 Location: 1386m NE
 SSSI name: Black Moss
 Unit name: 1
 Broad habitat: Bogs - Lowland
 Condition: Unfavourable - Declining
 Reportable features:

Feature name	Feature condition	Date of assessment
Raised bog (lowland)	Unfavourable - Declining	22/06/2021

ID: -
 Location: 1537m E
 SSSI name: Black Moss
 Unit name: 2
 Broad habitat: Neutral Grassland - Lowland
 Condition: Favourable
 Reportable features:

Feature name	Feature condition	Date of assessment
Raised bog (lowland)	Favourable	16/08/2011

ID: -
 Location: 1724m SE
 SSSI name: Haile Great Wood
 Unit name: Unit 5
 Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
 Condition: Unfavourable - Recovering
 Reportable features:

Feature name	Feature condition	Date of assessment
Upland mixed ashwoods	Not Recorded	01/01/1900
Upland oakwood	Not Recorded	01/01/1900
Wet woodland	Not Recorded	01/01/1900

ID: -
Location: 1936m E
SSSI name: Haile Great Wood
Unit name: Unit 1
Broad habitat: Broadleaved, Mixed And Yew Woodland - Lowland
Condition: Unfavourable - Declining
Reportable features:

Feature name	Feature condition	Date of assessment
Upland mixed ashwoods	Not Recorded	01/01/1900
Upland oakwood	Unfavourable - Declining	12/03/2010
Wet woodland	Not Recorded	01/01/1900

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



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

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

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



11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

1

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

Features are displayed on the Visual and cultural designations map on **page 82**

ID	Location	Name	Grade	Reference Number	Listed date
1	126m NW	K6 Telephone Kiosk, Egremont, Copeland, Cumbria, CA22	II	1336031	18/07/1988

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



11.5 Conservation Areas

Records within 250m

0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

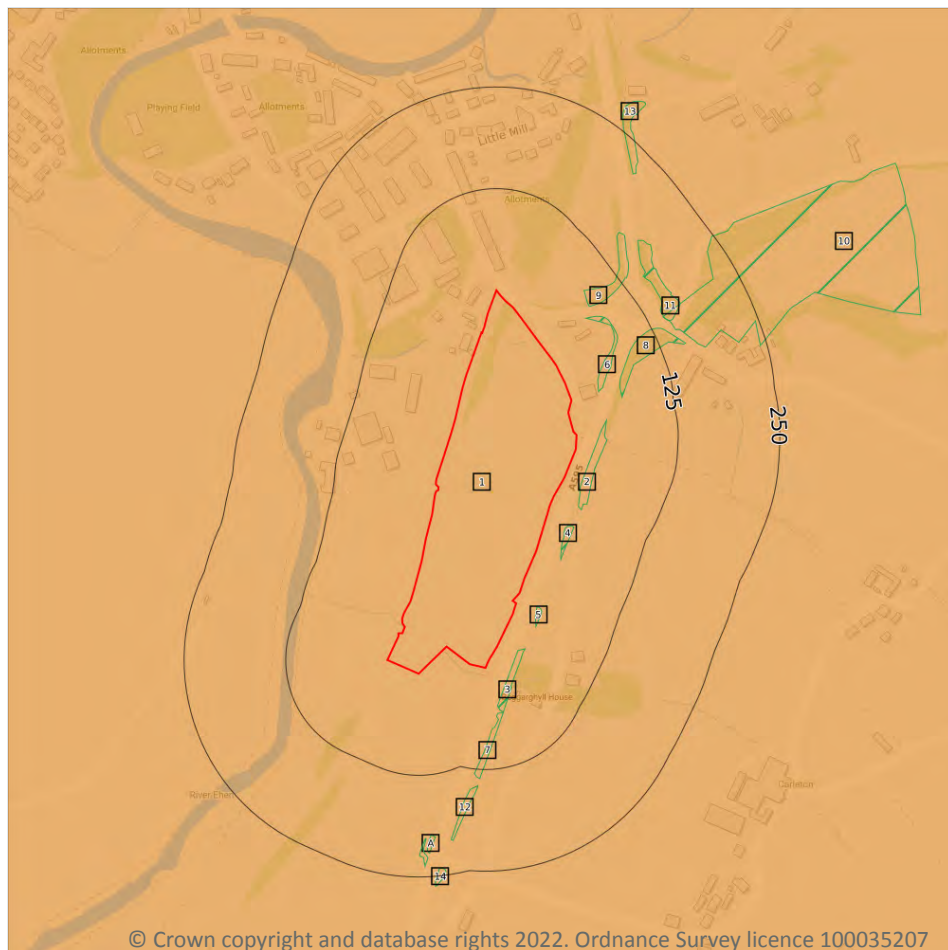
Records within 250m

0

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

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

12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 85**

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

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m

0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

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

12.3 Tree Felling Licences

Records within 250m

15

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

Features are displayed on the Agricultural designations map on **page 85**

ID	Location	Description	Reference	Application date
2	21m E	Selective Fell/Thin (Unconditional)	018/366/15-16	-
3	25m SE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
4	26m E	Selective Fell/Thin (Unconditional)	018/366/15-16	-
5	26m E	Selective Fell/Thin (Unconditional)	018/366/15-16	-
6	35m E	Selective Fell/Thin (Unconditional)	018/366/15-16	-
7	58m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-
8	62m E	Selective Fell/Thin (Unconditional)	018/366/15-16	-
9	76m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
10	144m NE	Selective Fell/Thin (Unconditional)	010/16/18-19	24/04/2018
11	144m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
12	145m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-
A	199m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-
A	203m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-
13	221m NE	Selective Fell/Thin (Unconditional)	018/366/15-16	-
14	241m S	Selective Fell/Thin (Unconditional)	018/366/15-16	-

This data is sourced from the Forestry Commission.



12.4 Environmental Stewardship Schemes

Records within 250m

2

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

Location	Reference	Scheme	Start Date	End date
On site	AG00332635	Entry Level plus Higher Level Stewardship	01/05/2009	30/04/2019
129m SW	AG00332635	Entry Level plus Higher Level Stewardship	01/05/2009	30/04/2019

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

4

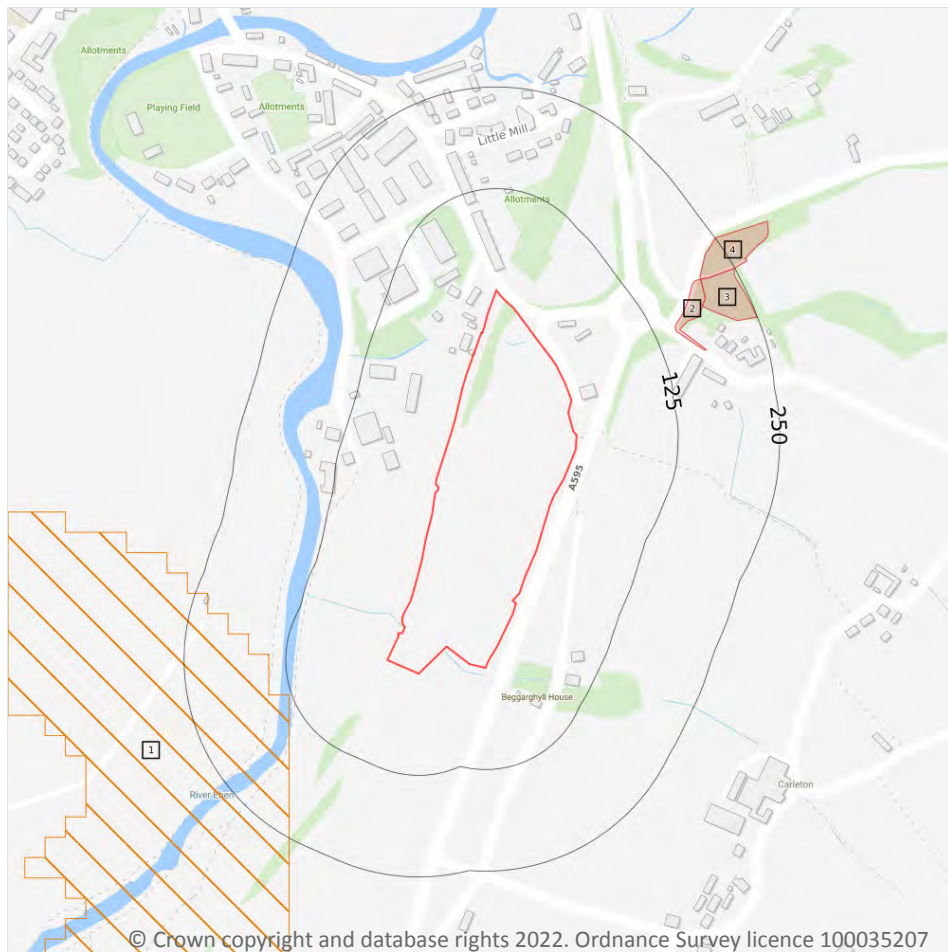
Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

Location	Reference	Scheme	Start Date	End Date
On site	489898	Countryside Stewardship (Middle Tier)	01/01/2017	31/12/2021
129m W	822200	Countryside Stewardship (Middle Tier)	01/01/2020	31/12/2024
195m NE	489898	Countryside Stewardship (Middle Tier)	01/01/2017	31/12/2021
201m E	474008	Countryside Stewardship (Middle Tier)	01/01/2018	31/12/2022

This data is sourced from Natural England.



13 Habitat designations



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

13.1 Priority Habitat Inventory

Records within 250m

3

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

Features are displayed on the Habitat designations map on **page 88**

ID	Location	Main Habitat	Other habitats
2	151m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	193m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	207m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.



13.2 Habitat Networks

Records within 250m

1

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

Features are displayed on the Habitat designations map on **page 88**

ID	Location	Type	Habitat
1	128m W	Network Enhancement Zone 1	Not specified

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 90**

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

This data is sourced from the British Geological Survey.



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

14.2 Artificial and made ground (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock

14.5 Bedrock geology (10k)

Records within 500m

0

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

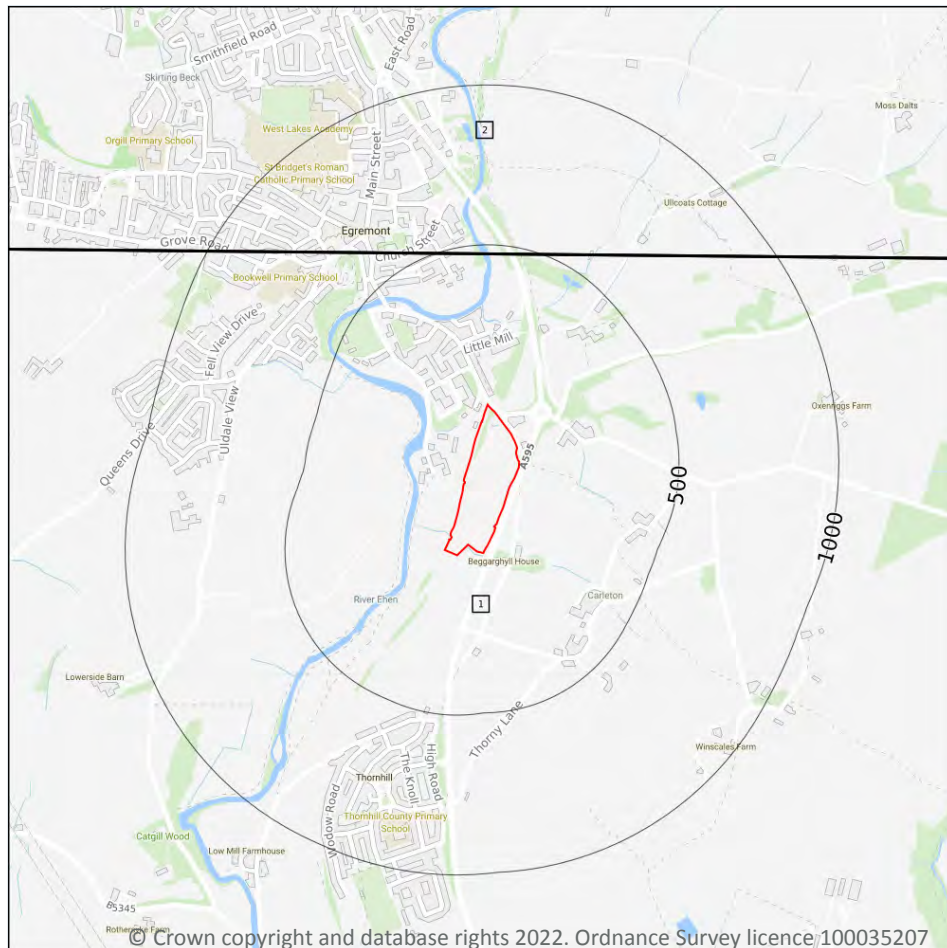
0

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m

2

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 94**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW037_gosforth_v4
2	472m N	Full	Full	Full	Full	EW028_whitehaven_v4

This data is sourced from the British Geological Survey.



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

15.2 Artificial and made ground (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

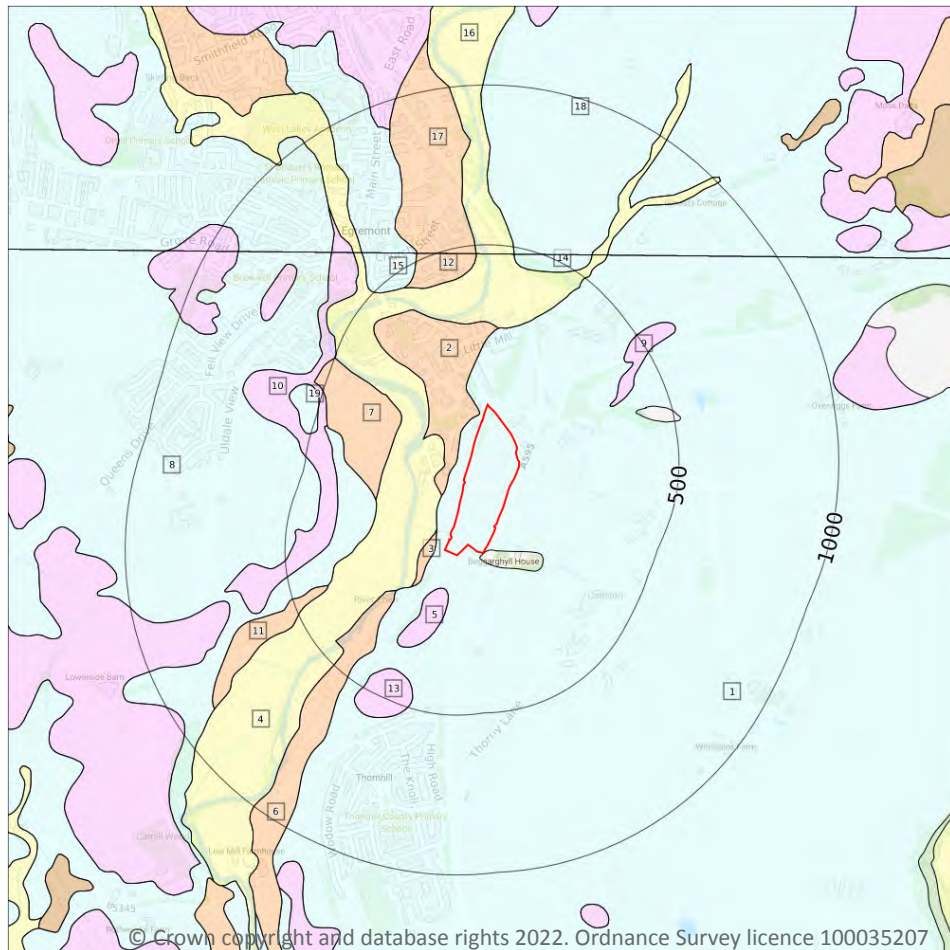
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

19

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 96**

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	TILL, DEVANSIAN	DIAMICTON
2	14m W	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
3	31m W	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL



ID	Location	LEX Code	Description	Rock description
4	46m W	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
5	112m S	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
6	199m SW	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
7	238m W	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
8	239m W	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
9	319m E	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
10	351m W	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
11	381m W	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
12	404m N	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
13	405m SW	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
14	441m N	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
15	450m NW	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
16	471m N	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
17	474m N	RTDU-XCSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	CLAY, SAND AND GRAVEL
18	478m N	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
19	485m W	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	6
---------------------------	----------

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Low
On site	Mixed	High	Low
14m N	Intergranular	Very High	High
31m SW	Intergranular	Very High	High
39m NW	Intergranular	Very High	High



Location	Flow type	Maximum permeability	Minimum permeability
46m S	Intergranular	High	Very Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

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

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

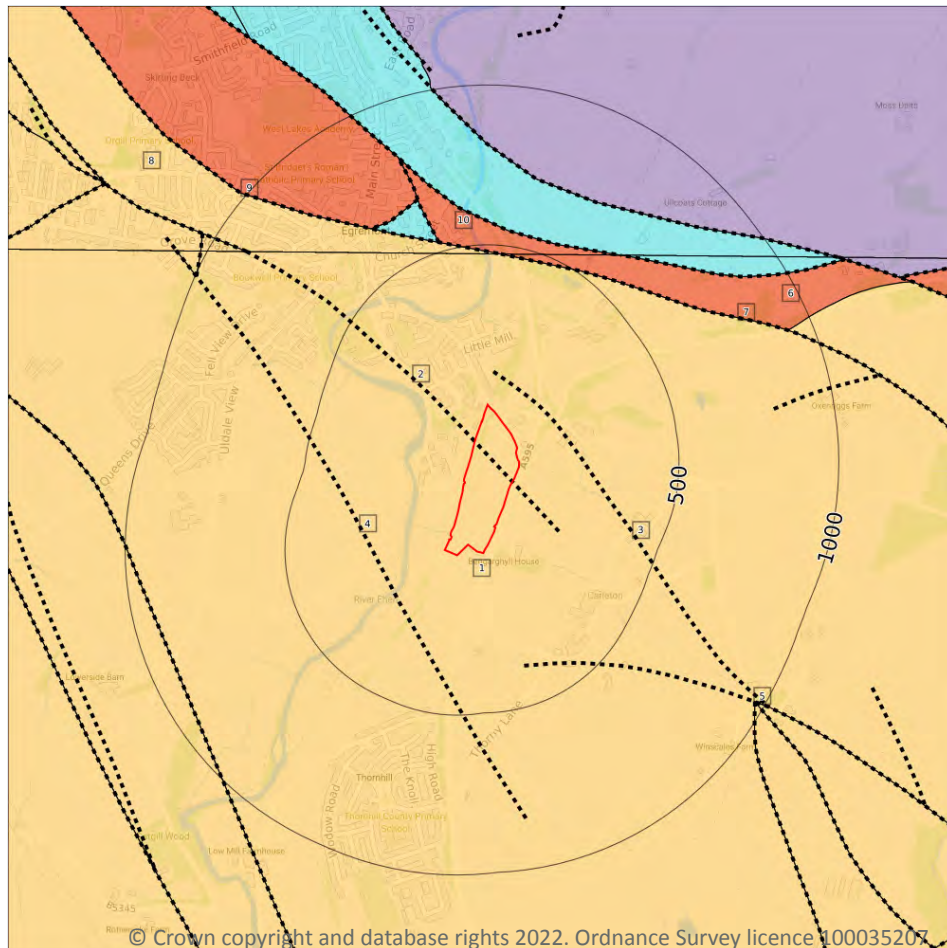
Records within 50m	0
---------------------------	----------

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m

4

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 99**

ID	Location	LEX Code	Description	Rock age
1	On site	SBS-SDST	ST BEES SANDSTONE MEMBER - SANDSTONE	-
6	470m N	BK-BREC	BROCKRAM - BRECCIA	-
8	471m N	SBS-SDST	ST BEES SANDSTONE MEMBER - SANDSTONE	-
10	473m N	BK-BREC	BROCKRAM - BRECCIA	-



This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2
---------------------------	----------

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	High	Moderate
On site	Mixed	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	6
----------------------------	----------

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

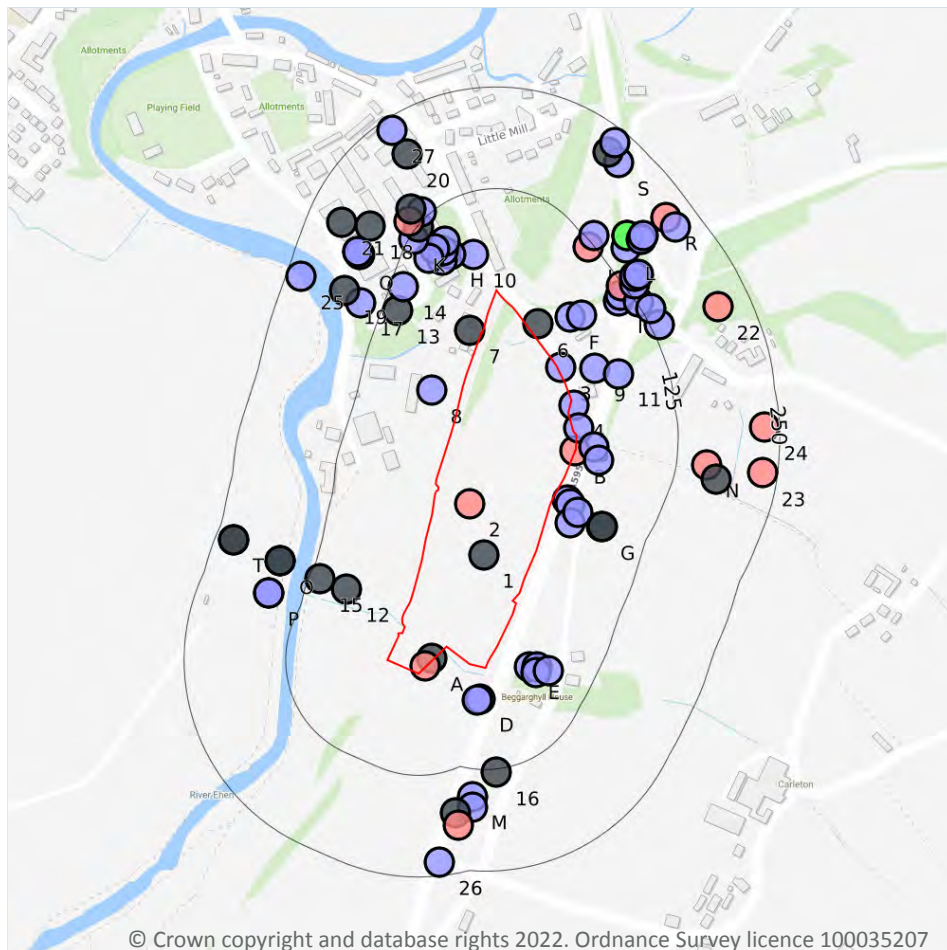
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 99**

ID	Location	Category	Description
2	On site	FAULT	Fault, inferred, displacement unknown
3	95m NE	FAULT	Fault, inferred, displacement unknown
4	202m SW	FAULT	Fault, inferred, displacement unknown
5	375m S	FAULT	Fault, inferred, displacement unknown
7	470m N	FAULT	Fault, inferred, displacement unknown
9	473m N	FAULT	Fault, inferred, displacement unknown

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

93

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

Features are displayed on the Boreholes map on **page 101**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	301414 509747	South Egremont Groundwater Scheme BH107	-	Y	N/A
2	On site	301397 509810	NO. 24 FLORENCE	296.57	N	874914
A	On site	301350 509620	MILLOM & ASKAM, NO 25	-	Y	N/A



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	On site	301342 509611	NO.25 CARLETON BECKERMET	321.87	N	874671
B	On site	301526 509875	NO.23 FLORENCE MINES	302.41	N	874905
3	4m NE	301509 509978	ST THOMAS'S CROSS EGREMONT 3	3.0	N	875018
4	4m E	301525 509931	ST THOMAS'S CROSS EGREMONT TP1	2.0	N	875019
5	7m E	301531 509903	ST THOMAS'S CROSS EGREMONT 2	7.1	N	875020
6	12m NE	301481 510031	ST THOMAS'S CROSSEGREMONT TP4	-	Y	N/A
7	15m W	301397 510023	BRIDGE END EGREMONT	-	Y	N/A
C	17m SE	301517 509815	A595(T) EGREMONT BYPASS (TP73)	2.8	N	875051
C	22m SE	301520 509810	A595 EGREMONT BYPASS TP73	2.0	N	875389
B	22m E	301550 509880	A595 EGREMONT BYPASS 72	7.2	N	875383
C	29m E	301520 509787	A595(T) EGREMONT BYPASS TP74	0.65	N	875052
B	30m E	301555 509864	A595(T) EGREMONT BYPASS BH72	7.0	N	875050
C	35m SE	301530 509800	A595 EGREMONT BYPASS TP74	0.0	N	875390
8	37m W	301350 509950	BH1 BRIDGE END EGREMONT	6.5	N	875025
D	39m S	301410 509570	A595 EGREMONT BYPASS TP77	3.0	N	875392
D	41m S	301406 509569	A595(T) EGREMONT BYPASS TP77	3.5	N	875055
9	41m NE	301551 509977	A595(T) EGREMONT BYPASS TP71	4.0	N	875049
E	46m SE	301470 509610	A595 EGREMONT BYPASS 76	8.85	N	875384
F	49m NE	301520 510040	A595 EGREMONT BYPASS TP70	1.0	N	897325
10	53m NW	301402 510117	EGREMONT AMBULANCE STATION 1	8.0	N	18509077
E	55m SE	301480 509610	A595 EGREMONT BYPASS TP75	3.0	N	875391
E	58m SE	301479 509603	A595(T) EGREMONT BYPASS BH76	8.0	N	875054
F	62m NE	301535 510042	A595 (T) EGREMONT BYPASS 70C	-2.0	N	896976
11	66m E	301580 509970	A595 EGREMONT BYPASS TP71	4.0	N	875388
G	68m E	301559 509782	South Egremont Groundwater Scheme BH108	-	Y	N/A
G	69m E	301560 509782	South Egremont Groundwater Scheme BH108A	-	Y	N/A
E	70m SE	301494 509605	A595(T) EGREMONT BYPASS TP75	3.0	N	875053
H	71m NW	301374 510117	EGREMONT TP 5	2.9	N	18462442



ID	Location	Grid reference	Name	Length	Confidential	Web link
12	76m NW	301246 509705	South Egremont Groundwater Scheme BH106R	-	Y	N/A
H	77m NW	301363 510110	EGREMONT TP 4	2.9	N	18462441
H	82m NW	301364 510121	EGREMONT TP 3	2.8	N	18462440
H	87m NW	301367 510133	EGREMONT TP 1	2.2	N	18462438
H	92m NW	301354 510124	EGREMONT TP 2	2.7	N	18462439
H	92m NW	301347 510112	EGREMONT TP 6	2.8	N	18462443
13	107m W	301308 510048	BRIDGE END EGREMONT	-	Y	N/A
14	108m W	301316 510077	BRIDGE END INDUSTRIAL ESTATE, EGREMONT TP2.	0.75	N	18124654
I	109m NE	301580 510060	A595 EGREMONT BYPASS TP69	1.0	N	897324
15	112m W	301213 509718	South Egremont Groundwater Scheme BH105R	-	Y	N/A
I	114m NE	301582 510066	A595 (T) EGREMONT BYPASS 69H	-2.0	N	896975
J	119m NE	301543 510126	EGREMONT M28	275.85	N	896749
K	120m NW	301328 510135	BRIDGE END INDUSTRIAL ESTATE, EGREMONT TP3.	0.75	N	18124655
I	123m NE	301584 510078	BH NO.8 FLORENCE	268.81	N	896529
K	124m NW	301334 510151	BECKERMET 293	-	Y	N/A
I	128m NE	301605 510058	A595 (T) EGREMONT BYPASS 68H	-2.0	N	896974
16	129m S	301430 509480	GYLBANK MA24	-	Y	N/A
J	133m NE	301550 510140	MILLOM XM28	-2.0	N	897068
K	134m NW	301337 510169	BRIDGE END EGREMONT 4	1.1	N	20006511
I	136m NE	301630 510030	A595 EGREMONT BYPASS TP68	1.0	N	897323
I	136m NE	301620 510050	A595 EGREMONT BYPASS TP68A	1.0	N	897294
K	136m NW	301323 510157	BRIDGEND TRIAL	102.0	N	897033
I	137m NE	301600 510080	FLORENCE M8	-2.0	N	897015
I	143m NE	301600 510090	A595 EGREMONT BYPASS TP67	3.0	N	897322
K	145m NW	301325 510173	BRIDGE END EGREMONT	-	Y	N/A
I	147m NE	301604 510092	A595 (T) EGREMONT BYPASS 67	-2.0	N	896973
17	152m W	301263 510057	BRIDGE END INDUSTRIAL ESTATE, EGREMONT TP1.	0.75	N	18124653



ID	Location	Grid reference	Name	Length	Confidential	Web link
L	155m NE	301589 510125	A595 (T) EGREMONT BYPASS 66	-2.0	N	896972
M	159m S	301400 509450	A595 EGREMONT BYPASS TP78	3.0	N	875393
N	162m E	301688 509858	NO.2 CARLETON	290.78	N	874913
L	165m NE	301590 510140	A595 EGREMONT BYPASS 66	12.6	N	897274
L	165m NE	301590 510140	A595 EGREMONT BYPASS 66A	12.6	N	897282
O	165m NW	301164 509740	South Egremont Groundwater Scheme BH104R	-	Y	N/A
O	165m NW	301164 509740	South Egremont Groundwater Scheme BH104	-	Y	N/A
P	167m W	301150 509700	EDGEMONT/BRAYSTONES SEWER 2	2.3	N	875401
P	167m W	301150 509700	EDGEMONT/BRAYSTONES SEWER 2A	5.0	N	875413
M	172m S	301401 509437	A595(T) EGREMONT BYPASS TP78	3.0	N	875056
Q	173m W	301262 510117	BRIDGE END EGREMONT 5	7.5	N	20006512
18	174m NW	301275 510152	BRIDGE END EGREMONT	-	Y	N/A
Q	176m W	301260 510120	BRIDGEND 2A	-2.0	N	897034
Q	176m W	301260 510120	BRIDGEND 2B	-2.0	N	897035
19	176m W	301243 510072	BRIDGE END EGREMONT	-	Y	N/A
L	176m NE	301608 510135	A595 (T) EGREMONT BYPASS 65	-2.0	N	896971
N	176m E	301700 509840	CARLETON, NO 2	-	Y	N/A
M	177m S	301380 509430	MILLOM & ASKAM, NO 26	-	Y	N/A
L	181m NE	301610 510140	A595 EGREMONT BYPASS TP65	3.0	N	897321
M	192m S	301383 509415	NO.26 CARLETON BECKERMET	353.87	N	874669
20	200m NW	301320 510240	BRIDGE END EGREMONT	-	Y	N/A
21	207m NW	301240 510156	BRIDGE END EGREMONT 1	-	Y	N/A
22	210m NE	301702 510052	FLORENCE PIT 21	273.4	N	896352
R	216m NE	301638 510162	BH NO.7 FLORENCE	272.44	N	896528
S	218m NE	301580 510230	A595 EGREMONT BYPASS TP65A	3.0	N	897293
S	219m NE	301567 510243	BSC 302	-	Y	N/A
R	219m NE	301650 510150	FLORENCE M7	-2.0	N	897014
T	228m NW	301107 509766	South Egremont Groundwater Scheme BH103R	-	Y	N/A

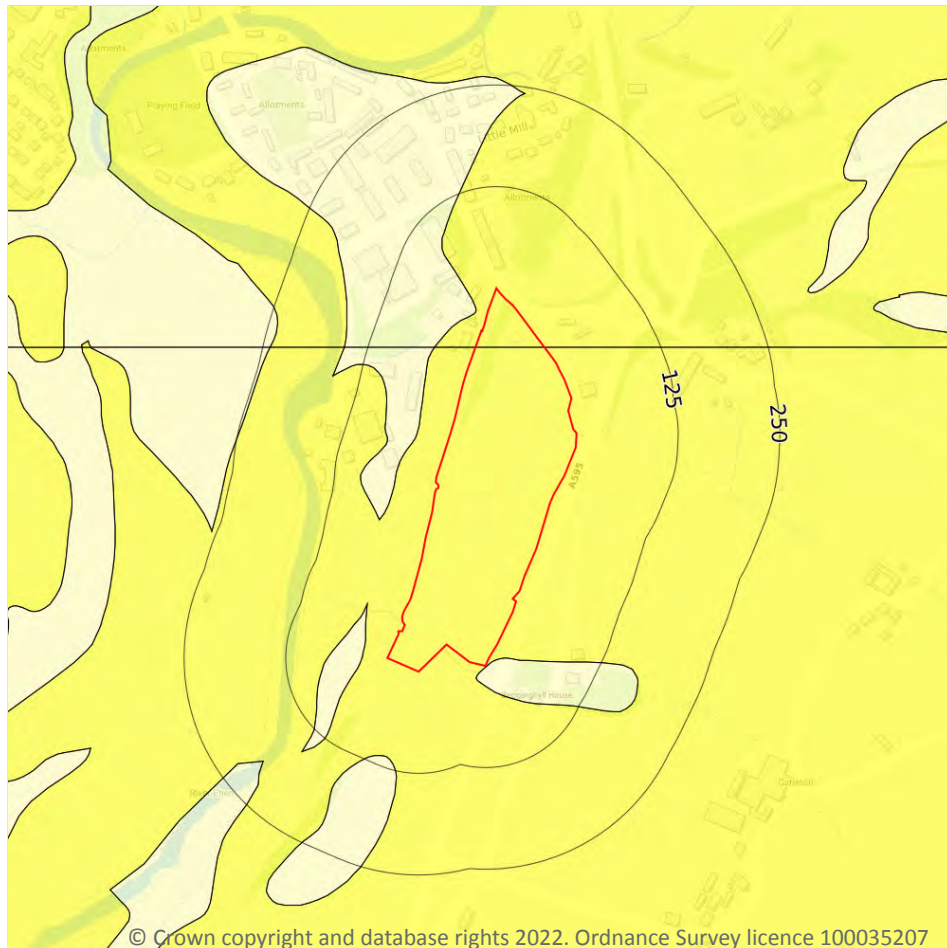


ID	Location	Grid reference	Name	Length	Confidential	Web link
T	228m NW	301107 509766	South Egremont Groundwater Scheme BH103	-	Y	N/A
23	231m E	301757 509848	NO.1 CARLETON FLORENCE MINE	299.01	N	874912
24	232m E	301760 509904	NO.18 FLORENCE PIT	286.21	N	874893
25	232m W	301190 510090	BRIDGEND TUBEWELL 1	-2.0	N	897217
S	232m NE	301575 510254	A595 (T) EGREMONT BYPASS 65A	-2.0	N	896970
26	233m S	301360 509370	A595 EGREMONT BYPASS 79	6.5	N	875385
27	234m NW	301302 510269	BRIDGE END EGREMONT 3	1.2	N	20006510

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.1 Shrink swell clays

Records within 50m

5

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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 106**

Location	Hazard rating	Details
On site	Very low	Ground conditions predominantly low plasticity.
1m SE	Negligible	Ground conditions predominantly non-plastic.
14m W	Negligible	Ground conditions predominantly non-plastic.

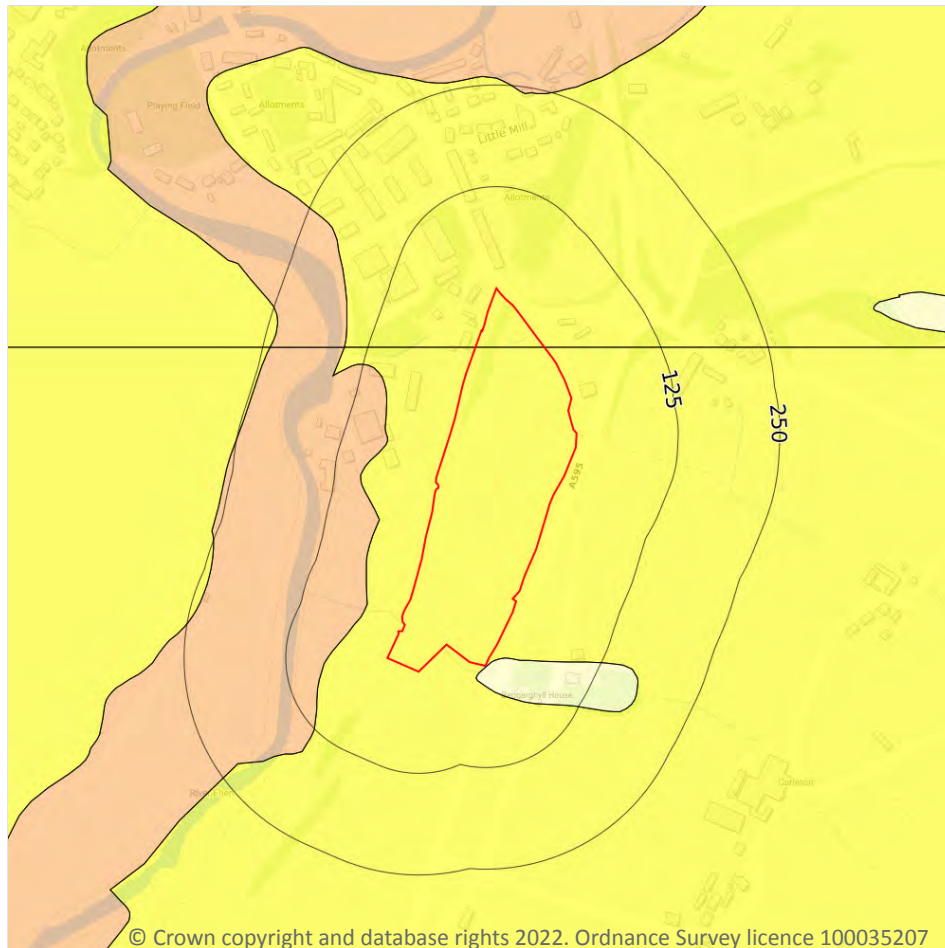


Location	Hazard rating	Details
31m W	Negligible	Ground conditions predominantly non-plastic.
39m W	Negligible	Ground conditions predominantly non-plastic.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.2 Running sands

Records within 50m

3

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

Features are displayed on the Natural ground subsidence - Running sands map on **page 108**

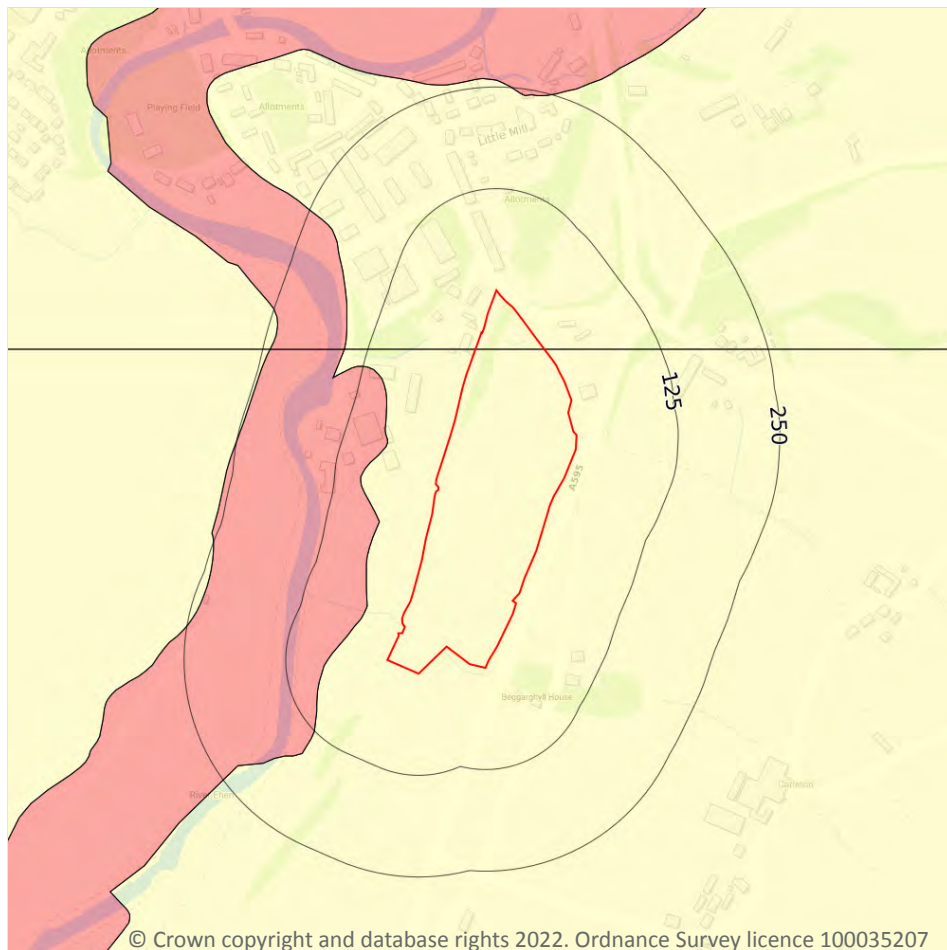
Location	Hazard rating	Details
On site	Very low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.

Location	Hazard rating	Details
1m SE	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.
46m W	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.3 Compressible deposits

Records within 50m

2

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

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 110**

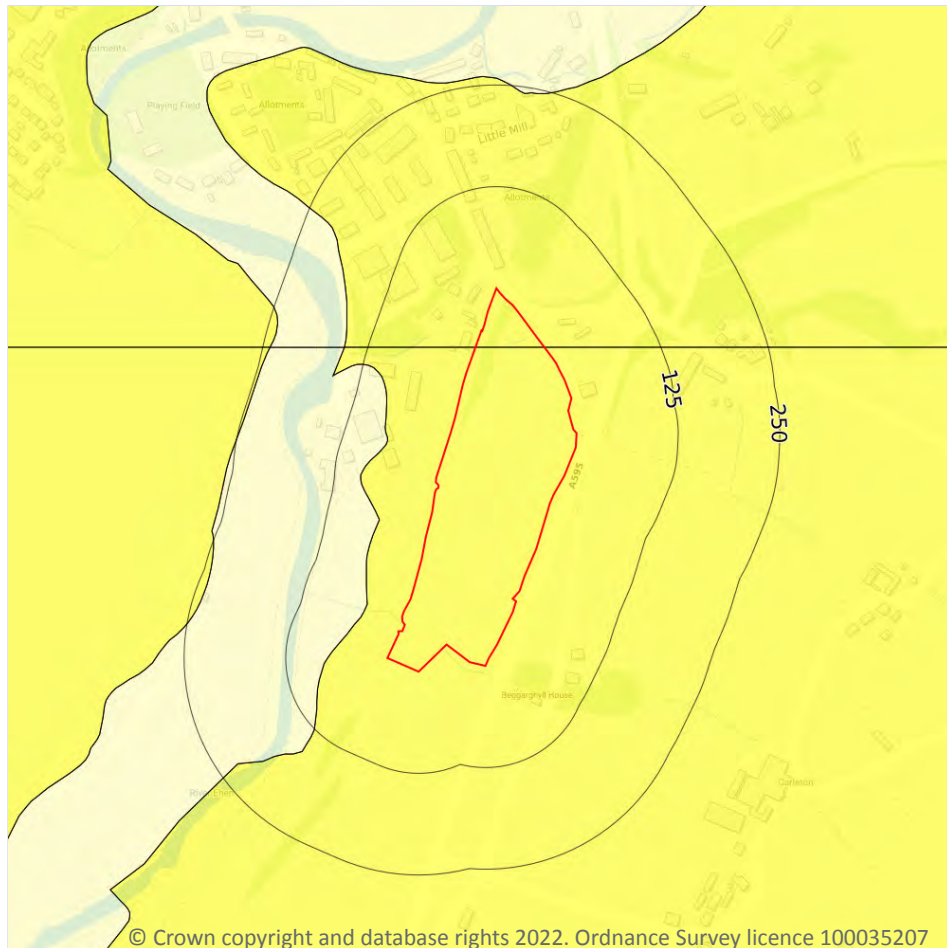
Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.
46m W	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.



This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.4 Collapsible deposits

Records within 50m

2

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

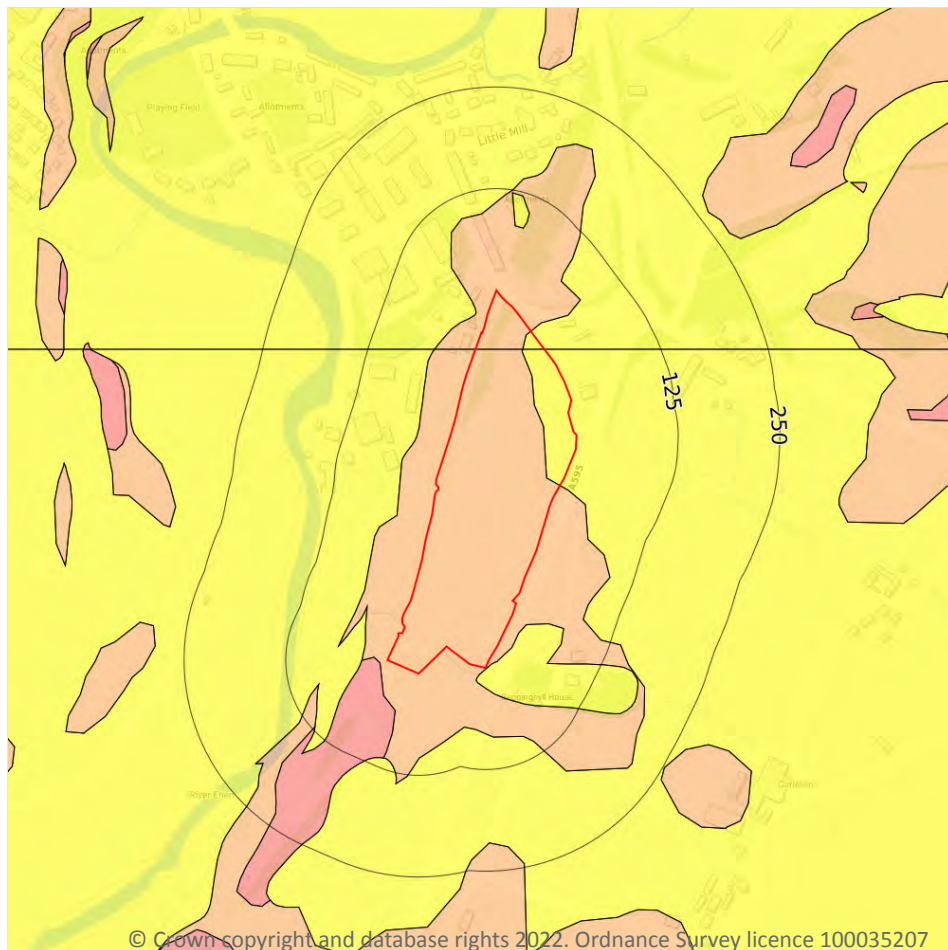
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 112**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
46m W	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



- Site Outline
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.5 Landslides

Records within 50m

4

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 113**

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

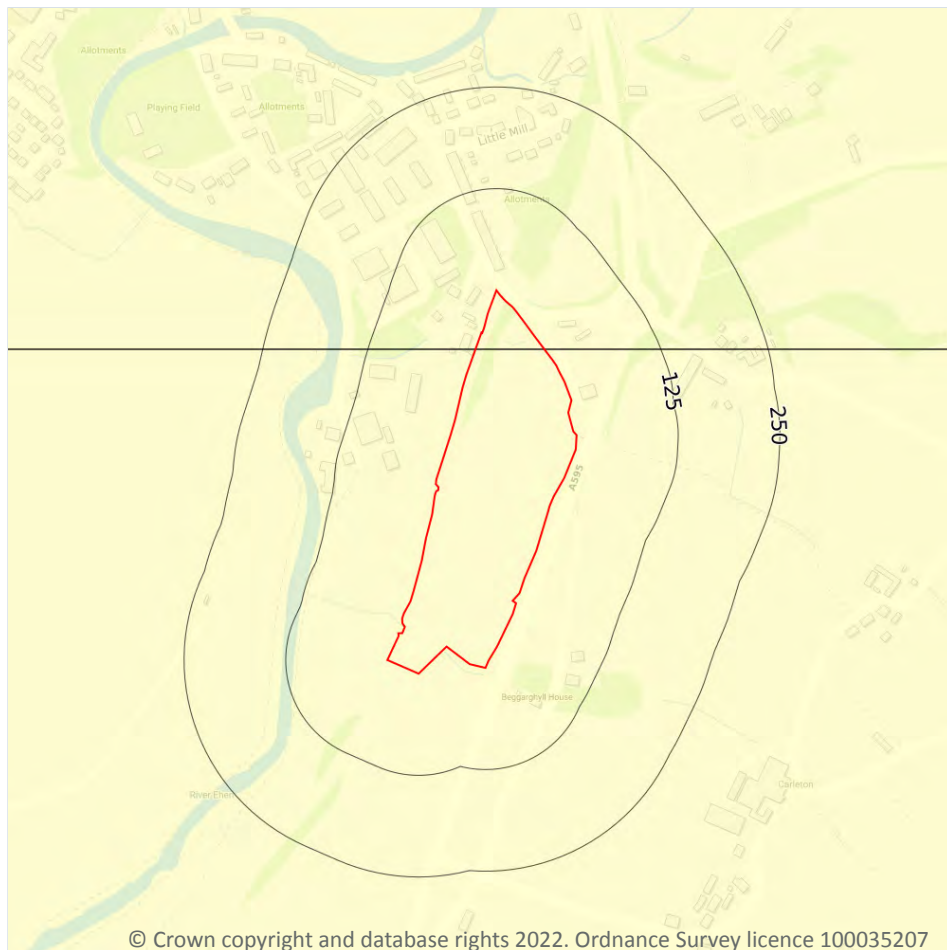


Location	Hazard rating	Details
On site	Low	Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.
1m SE	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.
10m W	Moderate	Slope instability problems are probably present or have occurred in the past. Land use should consider specifically the stability of the site.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



- Site Outline**
- Search buffers in metres (m)
- ☐ No data
 - ☐ Negligible
 - ☐ Very low
 - ☐ Low
 - ☐ Moderate
 - ☐ High

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

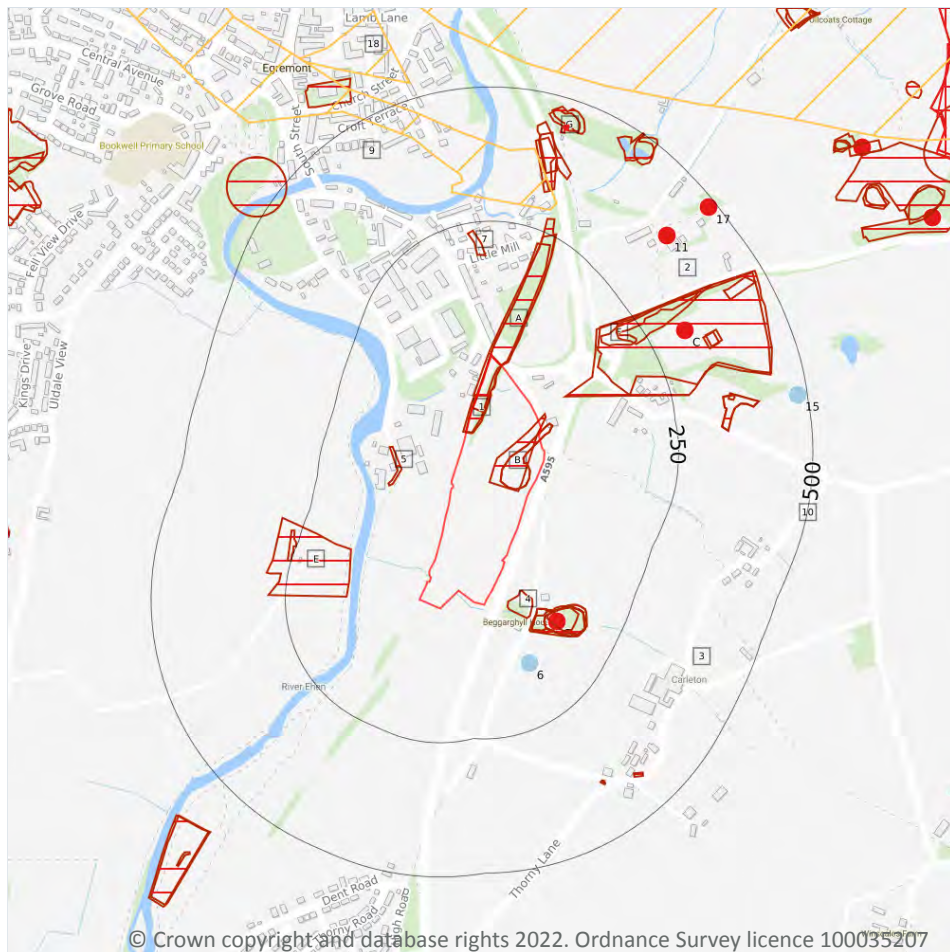
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 115**

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- ▢ Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- ▢ Surface ground workings
- ▢ Underground workings
- ▢ Historical Mineral Planning Areas
- Mining Cavities
- Non Coal Mining
- ▢ Sporadic underground mining of restricted extent possible
- ▢ Localised small scale underground mining possible
- ▢ Small scale mining possible
- ▢ Underground mining known or likely within or in close proximity
- ▢ Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.



18.2 BritPits

Records within 500m

4

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 117**

ID	Location	Details	Description
D	134m SE	Name: Beggargill Quarry Address: Carleton, EGREMONT, Cumbria Commodity: Sandstone Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
C	318m NE	Name: Florence Pit No 1 Address: EGREMONT, Cumbria Commodity: Hematite (Iron Ore) Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
11	391m NE	Name: Florence Mine Address: EGREMONT, Cumbria Commodity: Hematite (Iron Ore) Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
17	484m NE	Name: Florence Mine Address: EGREMONT, Cumbria Commodity: Hematite (Iron Ore) Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.



18.3 Surface ground workings

Records within 250m

23

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 117**

ID	Location	Land Use	Year of mapping	Mapping scale
1	On site	Cuttings	1951	1:10560
A	On site	Cuttings	1948	1:10560
A	On site	Cuttings	1898	1:10560
A	On site	Cuttings	1926	1:10560
B	On site	Refuse Heap	1951	1:10560
B	On site	Unspecified Heap	1971	1:10000
B	On site	Unspecified Heap	1981	1:10000
4	36m SE	Unspecified Quarry	1861	1:10560
C	64m NE	Iron Ore Pit	1948	1:10560
D	91m SE	Unspecified Disused Quarry	1926	1:10560
D	91m SE	Unspecified Quarry	1898	1:10560
D	93m SE	Unspecified Disused Quarry	1951	1:10560
5	96m W	Pond	1861	1:10560
D	110m SE	Unspecified Disused Quarry	1994	1:10000
D	110m SE	Unspecified Disused Quarry	1971	1:10000
D	110m SE	Unspecified Disused Quarry	1981	1:10000
D	114m SE	Unspecified Quarry	1861	1:10560
E	135m W	Sewage Works	1926	1:10560
C	143m NE	Iron Ore Pit	1926	1:10560
F	175m NE	Refuse Heap	1948	1:10560
7	187m N	Unspecified Ground Workings	1926	1:10560
F	205m NE	Refuse Heap	1926	1:10560
E	250m W	Water Bodies	1926	1:10560



This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

10

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 117**

ID	Location	Land Use	Year of mapping	Mapping scale
G	435m N	Unspecified Old Shaft	1948	1:10560
G	442m N	Unspecified Old Shaft	1926	1:10560
-	710m N	Unspecified Mine	1898	1:10560
-	762m N	Unspecified Mine	1926	1:10560
27	889m NE	Iron Ore Mine	1948	1:10560
P	894m NE	Iron Ore Mine	1926	1:10560
Q	936m SE	Iron Ore Mine	1951	1:10560
Q	936m SE	Unspecified Mine	1971	1:10000
-	985m E	Unspecified Disused Mine	1994	1:10000
-	986m E	Unspecified Mine	1926	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.



18.6 Non-coal mining

Records within 1000m

9

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

Features are displayed on the Mining, ground workings and natural cavities map on **page 117**

ID	Location	Name	Commodity	Class	Likelihood
2	On site	Not available	Iron Ore (Non Vein)	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
3	On site	Not available	Iron Ore (Non Vein)	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
8	286m N	Not available	Iron Ore (Non Vein)	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
9	304m N	Not available	Iron Ore (Non Vein)	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
10	384m E	Not available	Iron Ore (Non Vein)	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
18	530m N	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
20	541m N	Not available	Vein Mineral	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
21	677m NW	Not available	Iron Ore (Non Vein)	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered



ID	Location	Name	Commodity	Class	Likelihood
26	870m E	Not available	Iron Ore (Non Vein)	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m	4
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Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

Features are displayed on the Mining, ground workings and natural cavities map on **page 117**

ID	Location	Mine Address	Mineral	Data source	Publisher
6	137m SE	Florence, Cumbria	Hematite	DIRECTORY OF MINES AND QUARRIES	BRITISH GEOLOGICAL SURVEY
F	230m NE	Florence Mine, Cumbria	Hematite	CATALOGUE OF MINING INFORMATION (OTHER THAN COAL, FIRECLAY & SLATE) FOR THE L.D	BGS
15	482m E	Ullbank Mine, Cumbria	Hematite	CATALOGUE OF MINING INFORMATION (OTHER THAN COAL, FIRECLAY & SLATE) FOR THE L.D	BGS
-	966m N	St Helena, Cumbria	Bornite, Chalcocite, Copper, Malachite, Native Copper, Tetrahedrite	SHEET 26, WOLSINGHAM, 1:50 000	BRITISH GEOLOGICAL SURVEY

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

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

This data is sourced from Johnson Poole and Bloomer.



18.9 Coal mining

Records on site	0
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Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.10 Brine areas

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

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

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

18.11 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

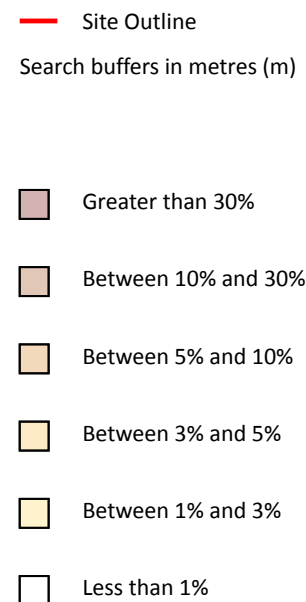
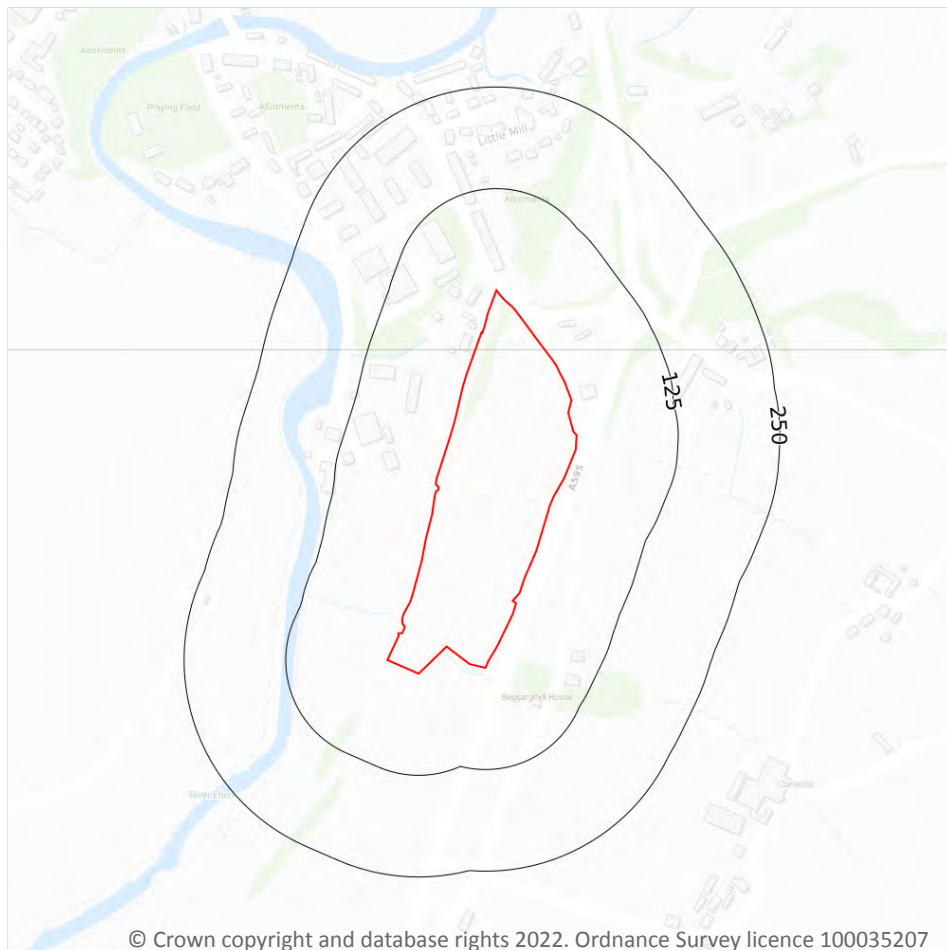
18.13 Clay mining

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

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

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

19 Radon



19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 124**

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None**

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

12

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
On site	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
1m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
9m NE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
9m NE	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 mg/kg
14m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 mg/kg
31m SW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 mg/kg
39m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 mg/kg
46m W	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
47m NW	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	15 mg/kg

This data is sourced from the British Geological Survey.



20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

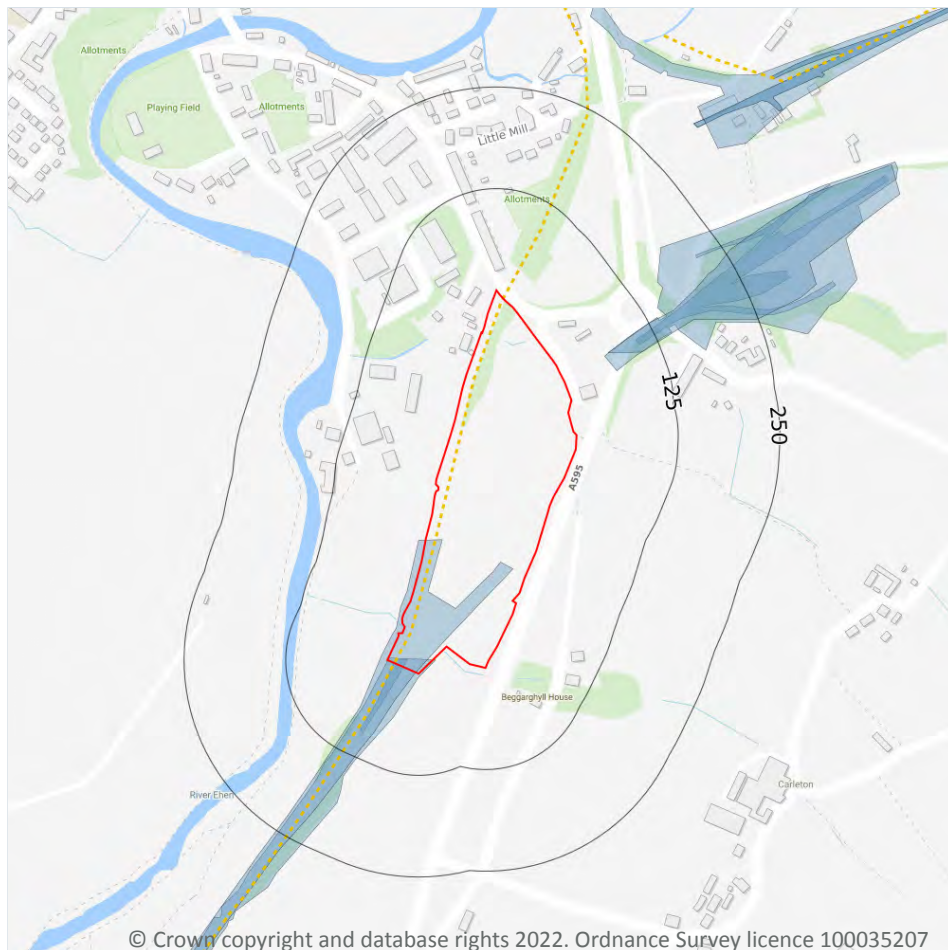
0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



—	Site Outline
Search buffers in metres (m)	
C1	Crossrail 1 Stations
—	Crossrail 1 Route
●	Crossrail 1 Worksites
C2	Crossrail 2 Stations
—	Crossrail 2 Route
■	Crossrail 2 Worksites
■	Crossrail 2 Safeguarding
■	Crossrail 2 Headhouses
	Railway stations
---	Active railways
---	Active tunnels
---	Abandoned railways
---	Historic railways
---	Historic tunnels
	Underground stations
---	Underground Lines
---	Royal Mail tunnels
---	HS2 optimised route
■	HS2 Stations
■	HS2 Depots
■	HS2 Surface Safeguarding
■	HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m

0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m

0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.



This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m

6

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 127**

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1938	2500
On site	Railway Sidings	1926	10560
On site	Railway Sidings	1951	10560
58m NE	Tramway Sidings	1926	10560
64m NE	Railway Sidings	1948	10560
102m NE	Railway Sidings	1924	2500

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m

0

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.



21.6 Historical railways

Records within 250m

1

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

Features are displayed on the Railway infrastructure and projects map on **page 127**

Location	Description
On site	Abandoned

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe)



is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 Ltd.



Data providers

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Appendix III

- Historical Map Extracts

Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: County Series

Map date: 1861

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1861
Revised 1861
Edition N/A
Copyright N/A
Levelled N/A



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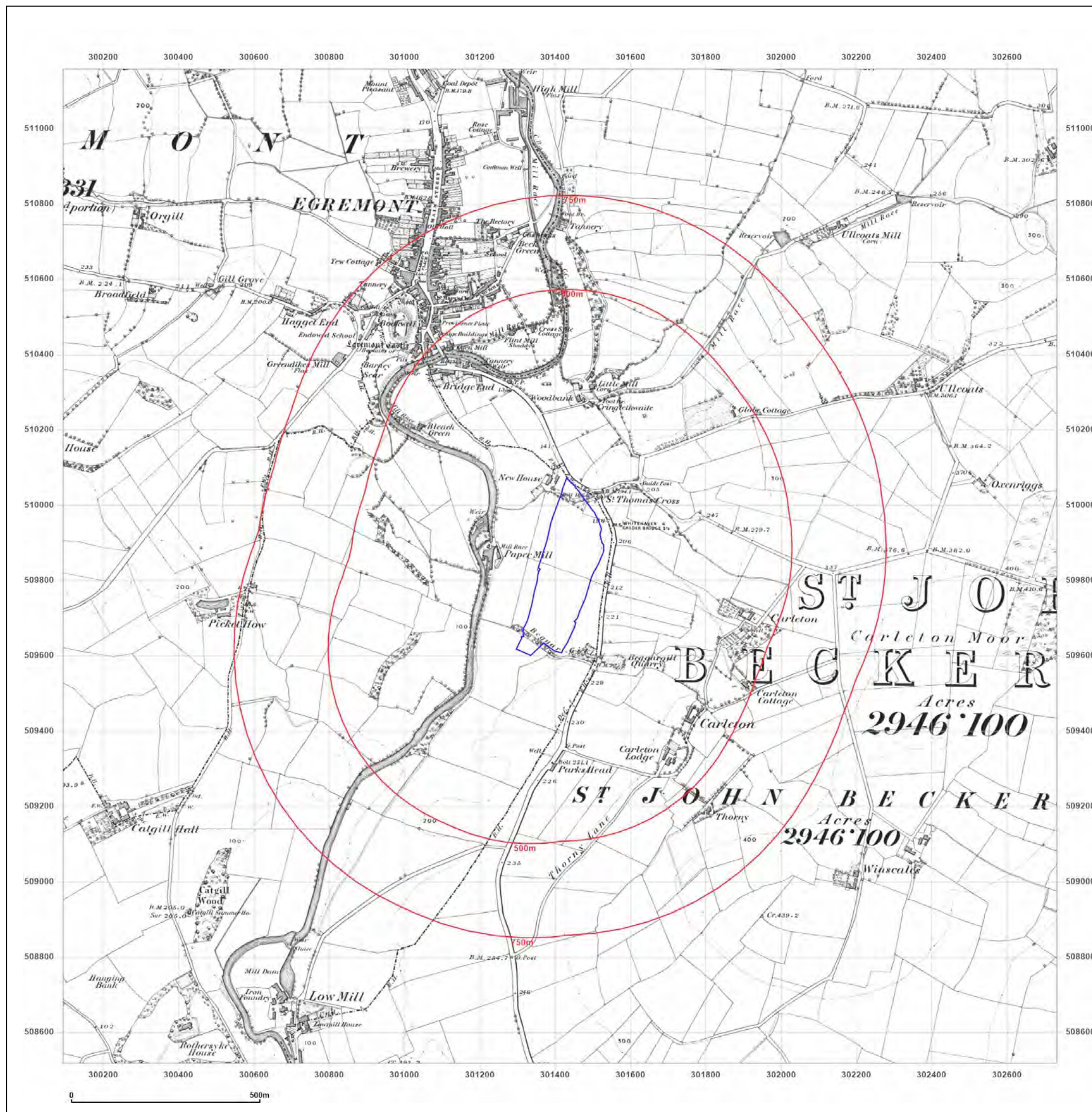


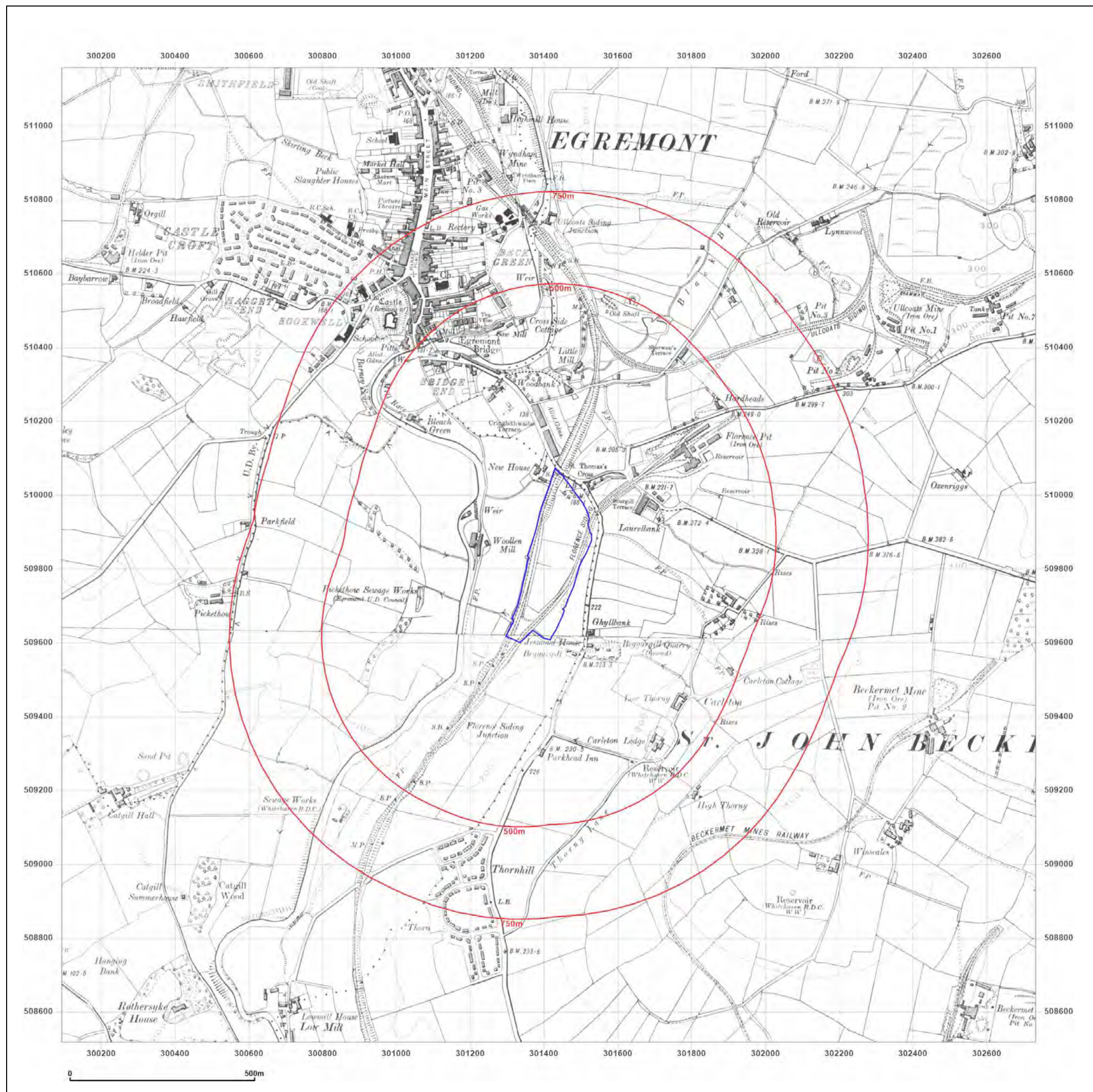
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Production date: 21 March 2022

Map legend available at:
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Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: County Series

Map date: 1926

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1860
Revised 1926
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1863
Revised 1926
Edition N/A
Copyright N/A
Levelled N/A



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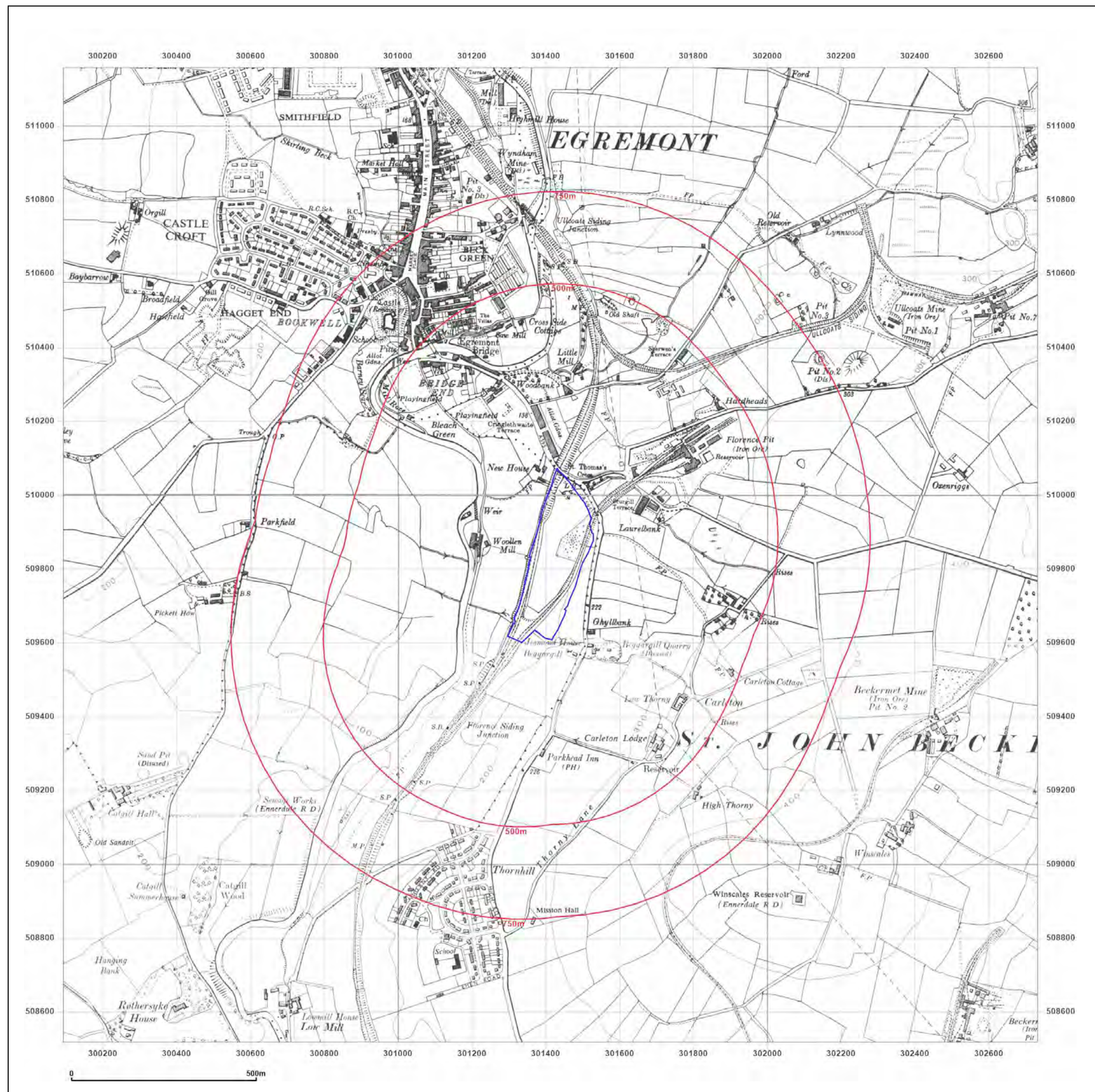


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Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: Provisional

Map date: 1951-1956

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1951
Revised 1951
Edition N/A
Copyright N/A
Levelled N/A



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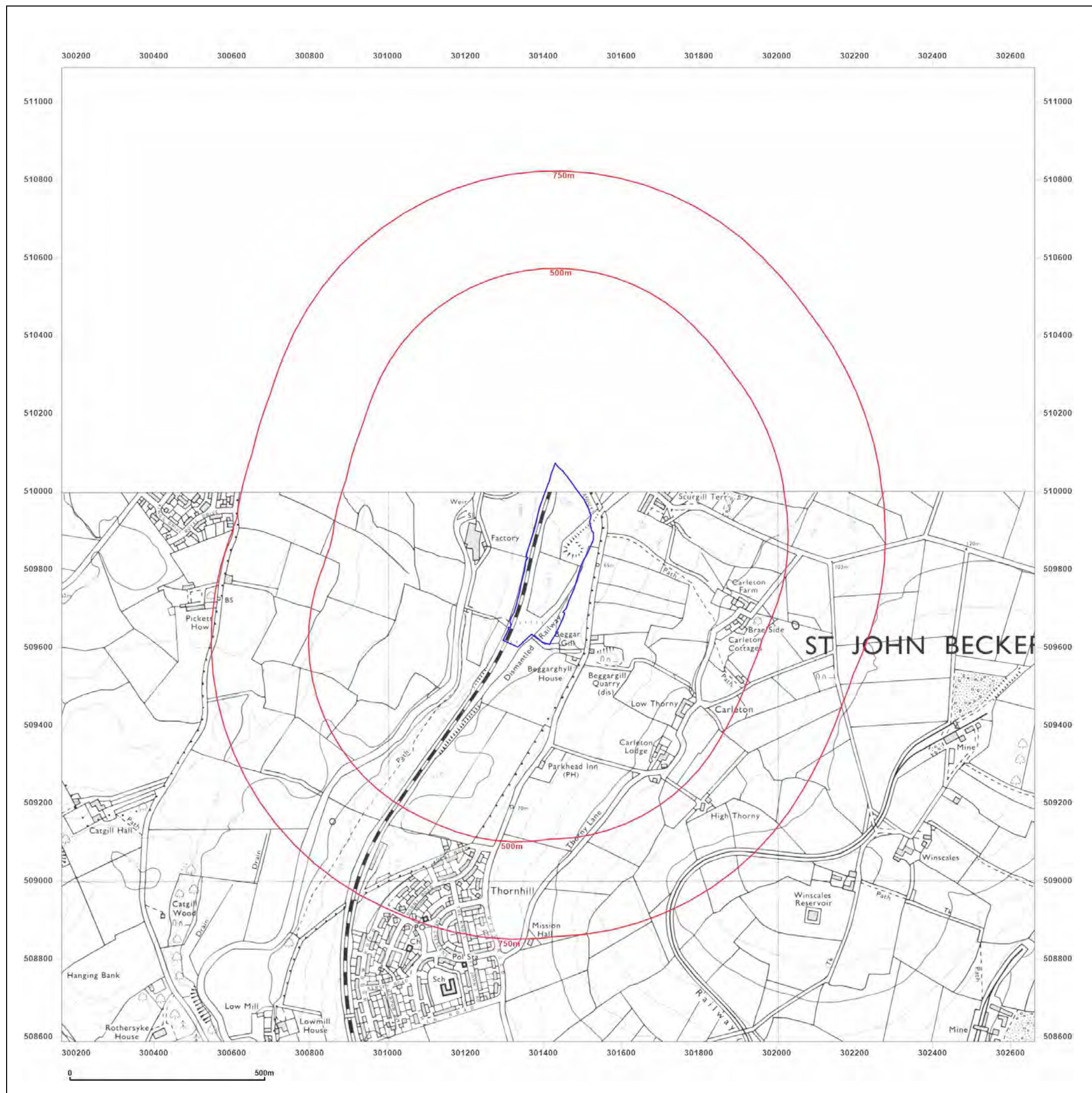


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Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: National Grid

Map date: 1971

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1970
Revised 1971
Edition N/A
Copyright N/A
Levelled N/A



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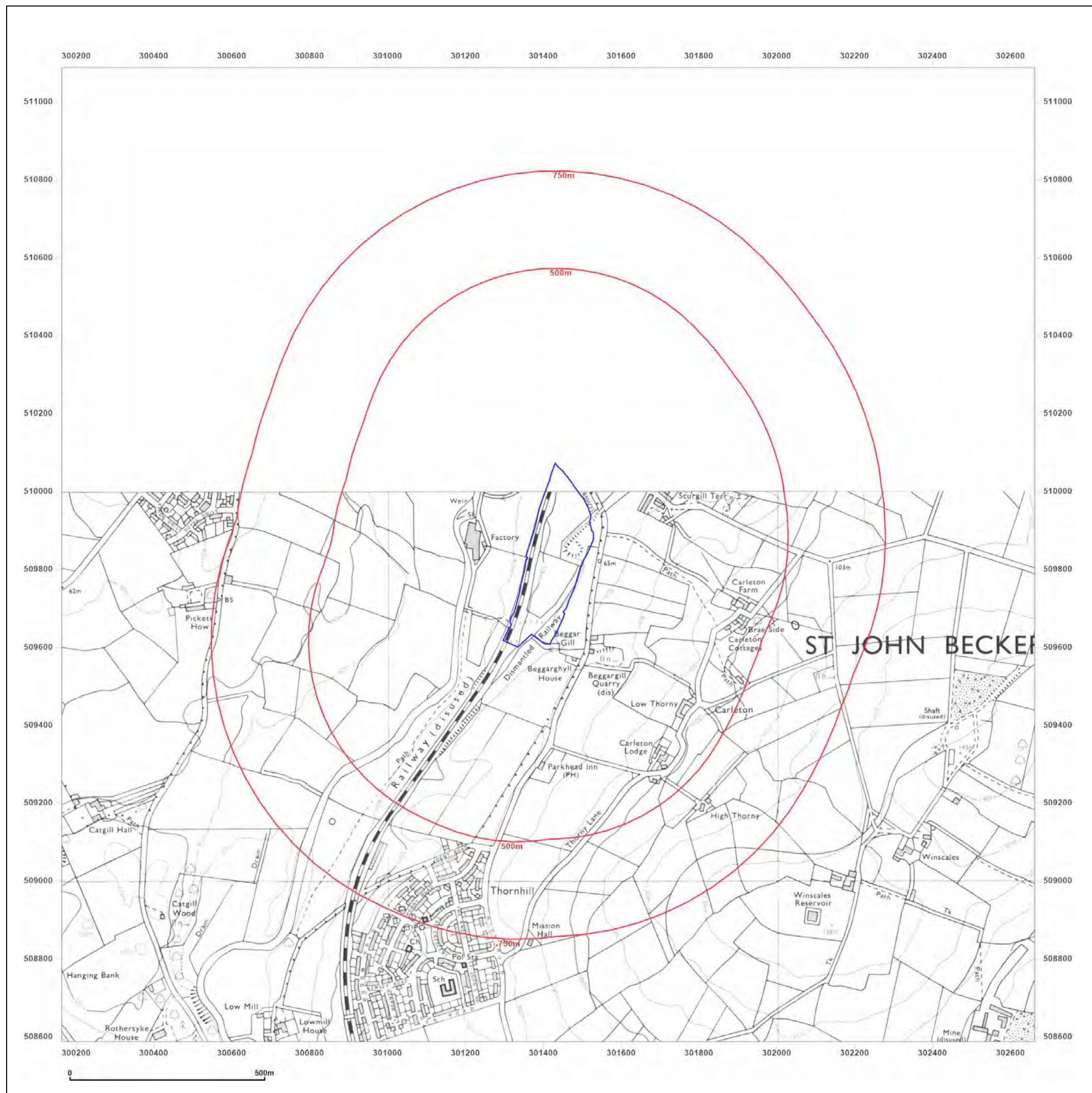


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Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: National Grid

Map date: 1981

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1970
Revised 1981
Edition N/A
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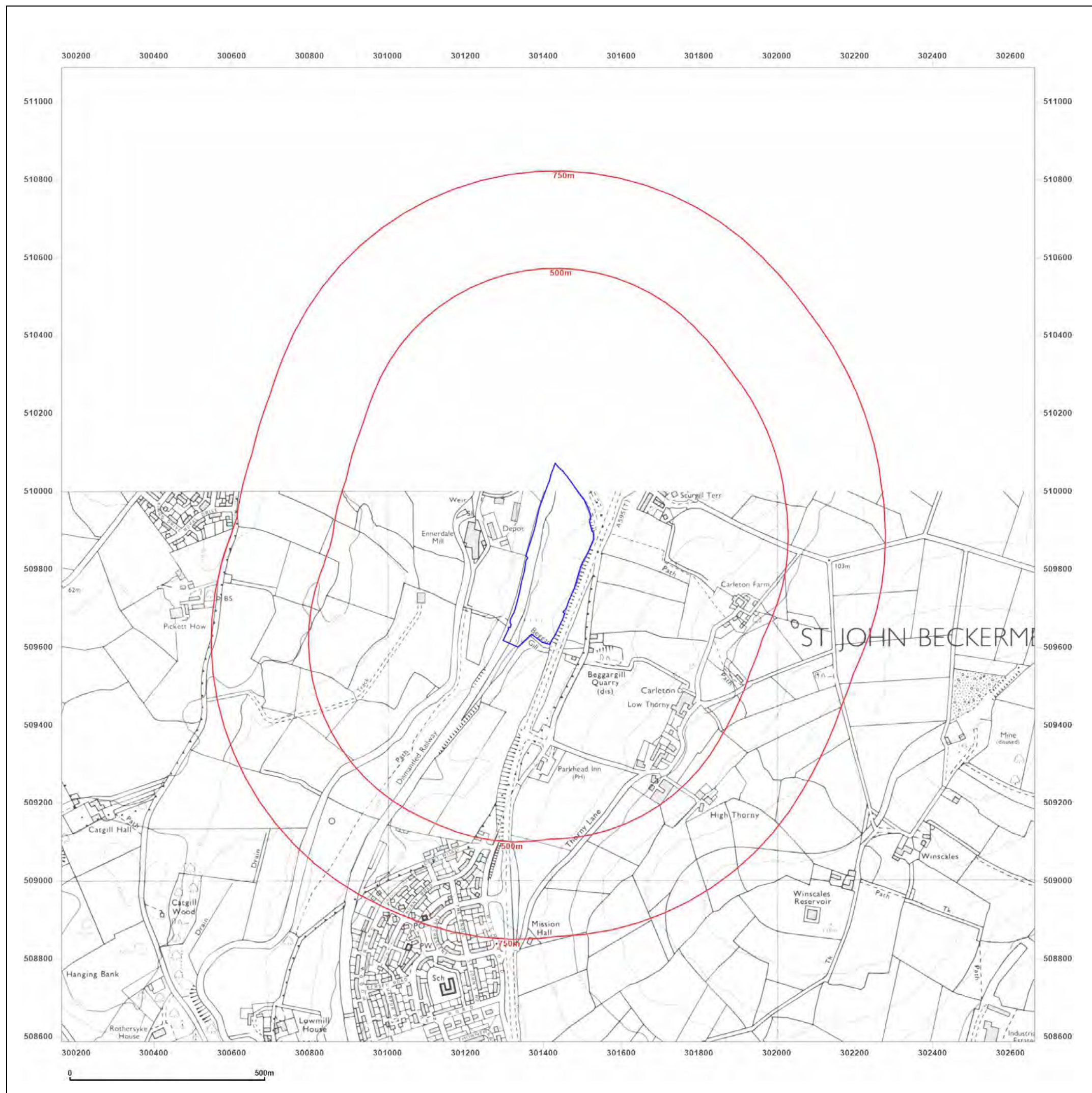


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Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: National Grid

Map date: 1994

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1968
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A



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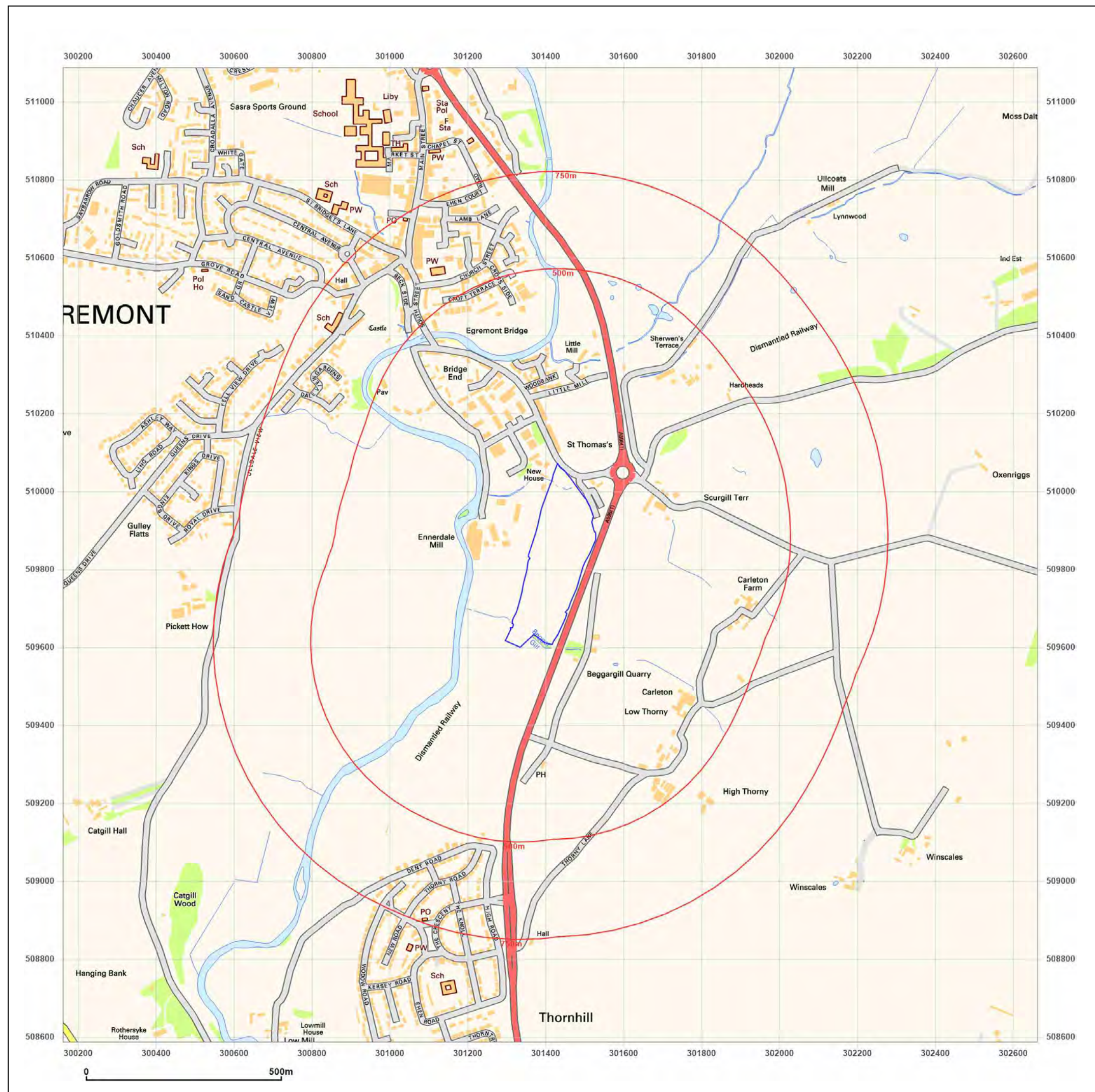


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Map legend available at:
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Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



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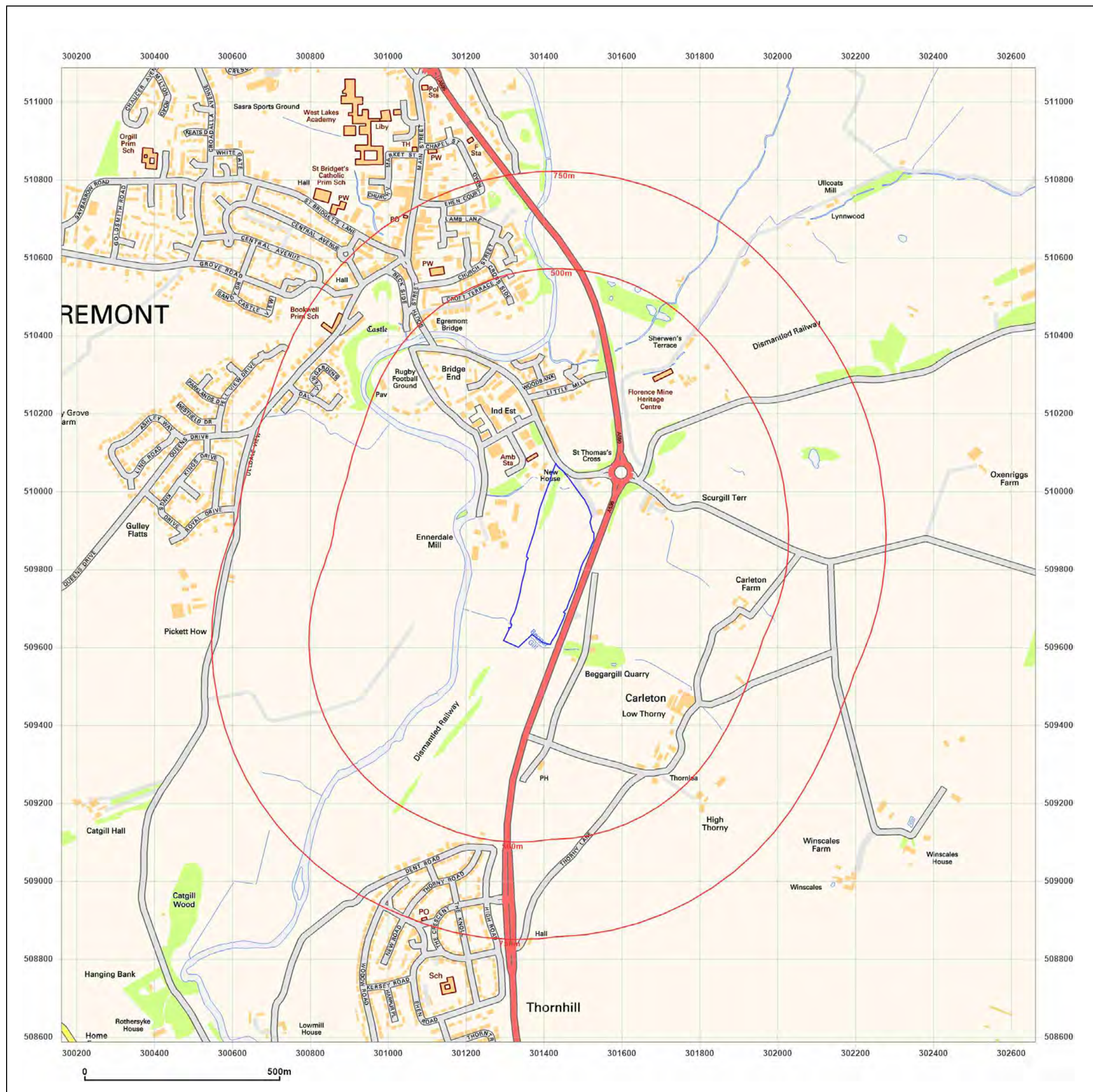


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Production date: 21 March 2022

Map legend available at:
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Site Details:

Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



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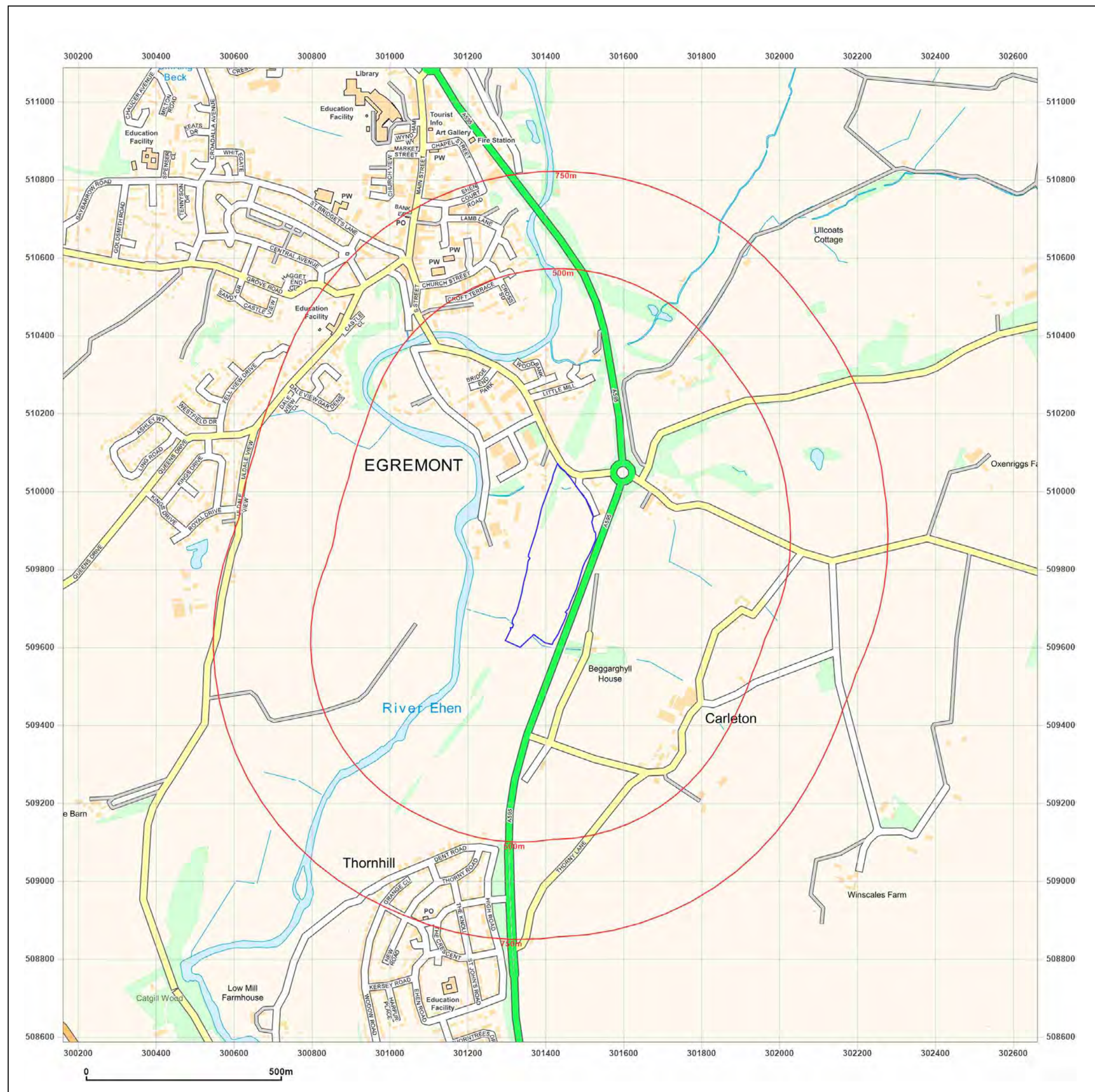


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Client Ref: EMS_768262_955958
Report Ref: EMS-768262_993783
Grid Ref: 301412, 509837

Map Name: National Grid

Map date: 2022

Scale: 1:10,000

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