



Harworth Colliery

Cultural Heritage Desk-Based Assessment

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1.0 INTRODUCTION

This desk-based assessment report was commissioned by Harworth Estates to support the development of proposals and planning applications for the potential re-opening of the former Harworth Colliery and a associated residential and employment development.

The report was prepared by Kirsten Holland, Senior Archaeologist at WYG.

1.1 AIMS AND OBJECTIVES

This study examines the cultural heritage potential of the proposed development site and the surrounding area. The aim of the study is to:

- Identify recorded cultural heritage sites within the site boundary;
- Identify the potential for previously unrecorded sites to be present within the site;
- Identify potential impacts and mitigation strategies where appropriate;
- Make recommendations for further work where required.

Cultural heritage within this context includes all buried and upstanding archaeological remains, built heritage sites, historic landscapes and any other features that contribute to the archaeological and historic interest of the area.

In accordance with the Institute for Archaeologist's (IfA) Standard definition of a Desk-Based Assessment (IFA 1994 rev 2001), this report seeks to identify and assess the known and potential archaeological resource within a specified area ('the site'), collating existing written and graphic information and taking full account of the likely nature and extent of previous impacts on the site, in order to identify the likely character, extent, quantity and worth of that resource in a regional and national context as appropriate.

The purpose of the desk-based assessment is to enable the archaeological resource to be assessed within its context and allow the formulation of one or more of the following:

- Formulation of a strategy to ensure the recording, preservation or management of the resource;
- Formulation of a strategy for further investigation to permit a mitigation strategy or other response to be devised, where existing evidence is insufficient;
- Formulation of proposals for further archaeological work within a framework of research.

This desk-based assessment considers the archaeological potential within the site itself and the surrounding area. This assessment does not attempt to plot and review every archaeological find and monument; rather it aims to examine the distribution of evidence and to use this to predict the archaeological potential of the study area and the likely significance of the development proposals on those remains.



2.0 METHODOLOGY

2.1 ASSESSMENT METHODOLOGY

Impact assessment has been carried out through the consideration of baseline conditions in relation to the elements of the scheme that could cause cultural heritage impacts. Baseline conditions are defined as the existing environmental conditions and in applicable cases, the conditions that would develop in the future without the scheme. In accordance with best practice this report assumes that the scheme will be constructed, although the use of the word 'will' in the text should not be taken to mean that implementation of the scheme is certain.

No standard method of evaluation and assessment is provided for the assessment of impact significance upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State's criteria for Scheduling Monuments (PPG16, Annex 3), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgment is used in conjunction with these criteria to undertake the impact assessment. The full assessment methodology can be seen in Appendix A.

The principles of the impact assessment methodology rest upon independently evaluating the value of the cultural heritage resource and the predicted magnitude of impact (both positive and negative) upon the resource. By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the impact can be determined. The impact significance can be beneficial or adverse. The evaluation of magnitude of impact and impact significance is undertaken both before and after mitigation measures are proposed.

2.2 SOURCES CONSULTED

A study area of approximately 9km² around the proposed development site has been examined to assess the nature of the surrounding cultural heritage sites and place the recorded sites within their context. The study area has corners of SW: SK 6075 9000 → NW: SK 6075 9250 → NE: SK 6450 9250 → SE: SK 6450 9000.

This study has been undertaken taking into consideration the historical and archaeological background of the proposed development area. The sources consulted were:

- Nottinghamshire Historic Environment Record (HER)
- National Monuments Record (NMR)
- English Heritage for designated sites
- Basset Law District Council for Conservation Areas
- Nottinghamshire Archives Service
- Geological maps
- Geotechnical site investigation logs



- Historic mapping including relevant Ordnance Survey Maps
- Appropriate documentary sources and archaeological journals, where available.

A site walkover survey was undertaken on 27th November 2008. Aerial photographs were not examined for this study as a comprehensive survey of aerial photographs has already been undertaken for the National Mapping Programme. The results of the survey have been incorporated into the Historic Environment Record and the map transcripts obtained from English Heritage.

3.0 SITE DESCRIPTION AND PROPOSALS

This report is considering the site of the former Harworth Colliery and associated land to the north-west and east of the site. The colliery is centered on NGR SK 6250 9125 (E: 462500 N: 391250) and is between 30m and 40m AOD. The general location of the site and the site layout can be seen in Appendix B, Figures 01 and 02.

The site is largely occupied by the former Harworth colliery, including many of the former buildings, services and spoil storage areas associated with the operation of the colliery. The area where colliery buildings are present is largely under hardstanding. There are significant areas of colliery spoil storage in the east of the site and settling ponds in the west of the site. The central western area is largely composed of Tip 1, a former spoil tip which has been landscaped and vegetated. The south of the site in the location of the former coke works is largely derelict. The north west of the site is currently largely derelict and not in active use. The east of the site is occupied by Droversdale Wood. A full description of the site is contained in Section 9, Site Walkover.

The proposals for the site and their impact with regard to cultural heritage will be discussed in detail in documentation relevant to each phase of works. In summary the following aspects of development are being considered on the site:

- Re-opening of the colliery for mining operations with relevant enabling works and limited new construction and refurbishment of existing buildings;
- Earthworks and remediation across the north-west of the site, the demolished colliery buildings to the north of the site, derelict ground of former coke works and the eastern colliery spoil storage areas;
- Mixed use development and associated access in areas to the north of Tip 1, east of the site on the location of the colliery spoil storage areas and Droversdale Woods.
- Potential employment uses of the main colliery areas after cessation of mining operations.

This report focuses on the areas to the north of Tip 1, former colliery spoil storage areas, Droversdale Wood and derelict land which formerly housed the coke works. The central area of the site and Tip 1 are not considered in detail as the proposals in this area are limited and there has been sufficient previous ground disturbance that there is a negligible potential for cultural heritage remains of interest.



4.0 GEOLOGY

The site is underlain by Middle and Lower Coal Measures strata. This is in turn overlain by Sherwood sandstones (Bunter pebble beds). Within the site of the colliery and to the south-east and north of the colliery sandy boulder clay is recorded as the superficial drift geology (BGS, 1967). Within the colliery site and the site of the spoil storage areas and tips the boulder clay will be overlain by varying thicknesses of made ground associated with the development of the site. The results of site investigations across the site are discussed in more detail in Section 11, Site Investigation Results.

5.0 LEGISLATION AND PLANNING POLICY CONTEXT

5.1 ANCIENT MONUMENTS AND ARCHAEOLOGICAL AREAS ACT 1979

Scheduled Monuments are designated by the Secretary of State for Culture, Media and Sport on the advice of English Heritage as selective examples of nationally important archaeological remains. Under the terms of Part 1 Section 2 of the Ancient Monuments and Archaeological Areas Act 1979 it is an offence to damage, disturb or alter a Scheduled Monument either above or below ground without first obtaining permission from the Secretary of State. This Act does not allow for the protection of the setting of Scheduled Monuments.

5.2 PLANNING (LISTED BUILDINGS AND CONSERVATION AREAS) ACT 1990

The Act outlines the provisions for designation, control of works and enforcement measures relating to Listed Buildings and Conservation Areas. Section 66 of the Act states that the planning authority must have special regard to the desirability of preserving the setting of any Listed Building that may be affected by the grant of planning permission. Section 72 states that special attention shall be paid to the desirability of preserving or enhancing the character or appearance of Conservation Areas.

5.3 PLANNING POLICY GUIDANCE 16: PLANNING AND ARCHAEOLOGY - 1990

PPG16 sets out the government's policy with respect to archaeology and planning. If development is likely to impact upon archaeological remains the guidance stresses the need for early consultation between developers and planning authorities plus the need for an archaeological assessment to be carried out early on in the process. Where nationally important remains, whether scheduled or not, and their setting are adversely affected by proposed development there should be a presumption in favour of their preservation. Where important archaeological remains may exist, field evaluation can help to define the character and extent of the remains and so assist in identifying potential options for minimising or avoiding damage. In cases involving archaeological remains of lesser importance the planning authority will need to weigh the relative importance of the archaeology against other factors, including the need for the proposed development. Where it is not feasible to preserve remains, an acceptable alternative



may be to arrange prior excavation and recording of archaeological remains and the publication of the results by means of granting planning permission subject to a negative condition.

5.4 PLANNING POLICY GUIDANCE 15: PLANNING AND THE HISTORIC ENVIRONMENT - 1994

PPG15 emphasises the importance that the Government gives to preserving and enhancing Conservation Areas, Listed Buildings and their settings and other aspects of the historic environment including Registered Parks and Gardens, World Heritage Sites and the wider historic landscape.

5.5 REGIONAL POLICY AND GUIDANCE

The East Midlands Regional Plan (formerly East Midlands Regional Planning Guidance, 2002) contains three policies relevant to cultural heritage. These policies reflect national planning guidance and provide for the understanding, protection, conservation and enhancement of cultural heritage and historic assets, including historic landscapes. The full text of these policies can be seen in Appendix D and they include:

- Policy 26 Protecting and Enhancing the Regions Natural and Cultural Heritage
- Policy 27: Regional Priorities for the Historic Environment

5.6 LOCAL POLICY AND GUIDANCE

The Bassetlaw Local Plan (adopted Oct 2001) contains numerous policies relating to heritage that have been 'saved' under the provisions of the Planning and Compulsory Purchase Act 2004. The full text of these policies can be seen in Appendix D and they include:

- 6/4 Special Landscape and Heritage Areas
- 6/6 Historic Parks and Gardens
- 6/8 and 6/9 Trees, Hedgerows and Woodland
- 6/10 Listed Buildings
- 6/11 Conservation Areas
- 6/12 Archaeological Sites.

6.0 CONSULTATION

Consultation was undertaken with the Nottinghamshire Historic Environment Record, English Heritage and Nottinghamshire Archives Service for the provision of data for this report. Further consultation was undertaken with Nottinghamshire County Council Historic Environment Department (Chris Robinson, 23/01/09 and 05/02/09) regarding the proposed development, its impact upon cultural heritage and mitigation strategies in their role as Archaeological Advisor to the local planning authority. The results of these consultations are integrated into the report as appropriate.



7.0 BASELINE DATA

7.1 DESIGNATED SITES

There are no World Heritage Sites, Scheduled Monuments, Registered Parks and Gardens, Registered Battlefields, Registered Common Land or Conservation Areas within the study area

There are nine Listed Buildings within the study area. The buildings are all residential houses or barns with the exception of the Church of All Saints. All the buildings are all designated as Grade II Listed. Details of these buildings can be seen in Appendix E and are shown on Figure 03.

There are two areas of ancient woodland within the study area. These are areas of ancient and semi-natural replanted woodland at Crow Wood (SK 607 909) and ancient replanted woodland at an unnamed area of woodland (SK 628 925).

7.2 ARCHAEOLOGICAL AND HISTORIC BACKGROUND

The National Monuments Record holds details of 31 recorded cultural heritage sites within the study area. The Nottinghamshire Historic Environment Record holds details for a further seven sites within the study area. Further details of these sites can be seen in Appendix E and on Figure 03. This archaeological and historic background also draws upon the Nottinghamshire Resource Assessment which forms part of the East Midlands Research Framework (Bishop, 2006).

7.2.1 Prehistoric (up to 43AD)

There are no recorded sites of Palaeolithic, Mesolithic, Neolithic or Bronze Age date within the study area. The evidence for prehistoric activity within Nottinghamshire is heavily biased to the Trent Valley and other river valleys. The focus of research in recent years has been on linking environmental and ge archaeological evidence with archaeological remains and has been largely focused in the river valleys utilising advances in alluvial archaeology.

Evidence for Palaeolithic and Mesolithic activity within Nottinghamshire is largely concentrated in the Trent Valley although there is a general distribution of finds across the county with a greater number of Mesolithic finds in upland areas. The majority of Neolithic and Bronze Age sites are either cropmarks or artefact find spots. It is anticipated that further evidence of Neolithic and Bronze Age sites may be masked within extensive cropmarks of Iron Age and Roman date. The majority of recognised sites may be classified as ritual or funerary in nature, with settlement sites being relatively uncommon.

The Iron Age is marked by a change in the economic base of the area. There is a move towards a more managed agrarian economy. Brickwork field patterns are a typical feature over the study area and much of the wider region. These are considered more likely to have been linked to animal husbandry, rather than arable cultivation, although the growing of crops is likely to have formed a part of the economy. There are also potential settlement foci that have been identified within the cropmarks. There has been



relatively little excavation of the cropmarks, however the evidence that these have yielded has generally identified a late Iron Age and Roman date. The cropmark field systems appear to have had a relatively short lifespan. This has been attributed to the large-scale deforestation that would have been need to create the space for the field systems, meaning that the well draining sandy soils were rapidly stripped of their nutrients and became poor quality forcing the population to move. The status of the settlements in the region appears to be low and relatively impoverished when compared to the south of the county.

Within the study area there are a large number of identified cropmarks which have been assigned an Iron Age or Roman date (Sites 10-12, 18-23, 35). These are predominantly linear features relating to the brickwork field patterns, with occasional additional evidence of tracks or enclosures. The layout of the cropmarks, as identified during the National Mapping Programme, are shown on Figure 04. Only two locations have been archaeologically evaluated with excavation trenches. The first found no evidence of the cropmarks indicating that they may already have been removed by agricultural practices (Site 21, TPAT, 1992) and the other did not yield any dating evidence (Site 12). A number of the other sites have since been removed by development or are also likely to have been affected by agricultural practices. The only other recorded site is the findspot of a gilded bronze copy of an Iron Age stater, the findspot location of which can not be accurately recorded.

7.2.2 Roman/Romano British (43AD to c.450AD)

The majority of the evidence for Roman activity within the study area is linked to the anticipated Roman date of the extensive cropmark field patterns and settlement evidence discussed above. Studies of the cropmarks have indicated that variations in the size and structure of the field system and associated enclosure relate to different phases of occupation until the 4th century (Bishop, 2006). Additional evidence of Roman activity within the study area has been identified in the form of Roman pottery at one of the cropmark sites (Site 19) during trial trenching.

In the wider region there is evidence of a Roman villa at Oldcotes to the west of the A1(M). To the north-east the line of the Great North Road runs from Lindum to Doncaster via the Roman fort at Bawtry (Ordnance Survey, 1994).

7.2.3 The Early Medieval Period (c.450AD to 1066AD)

The evidence for early medieval occupation within Nottinghamshire is sparse and generally concentrated in the south of the county. The north of the county where the site is located contains relatively few records of early medieval remains. The only recorded site of early medieval date within the study area is a linear earthwork bank. The bank is known as Roman bank but is assumed to be early medieval in date and appears to overlie the cropmarks of the Iron Age and Roman field systems. There is little further information available about the bank, however it may have delineated a former boundary to an estate.

As with much of the rest of the county the evidence for early medieval occupation is largely derived by inference from the Domesday Book. Harworth is recorded in the Domesday Book as having previously belonged to three Anglo-Saxon landowners, but was granted to Roger de Bosli based at Tickhill. The



village, which included the hamlet of Martin, housed nine families, a church and substantial tracts of woodland (VCH in ARCUS, 1994). The village is likely to have therefore been established sometime in the early medieval period and continued through the 11th century when the Domesday Book was compiled.

The place name of Harworth was recorded as *Hareworde* in the Domesday Book (1086AD) and this is derived from the Old English *har* and *worth* meaning enclosure on the boundary which may relate to either the boundary of an estate, or the boundary between the counties of Yorkshire and Nottinghamshire. Styrrup is also recorded in the Domesday Book as *Estirape* and is probably derived from the Old English *stig-rap* meaning a stirrup. It may relate to an early settlers description for the hill to the east of the village which is sometimes thought to resemble a stirrup in shape (Mills, 2003).

7.2.4 Medieval Period (1066 AD to c.1540AD)

Whilst it is known that the village of Harworth was established prior to the Domesday Survey in 1086 and continued as a settlement to the modern day, there are relatively few recorded sites of medieval date in the study area. The Church of All Saints in the village (Site 3) contains the remains of the medieval tower which dates to the 12th and 14th century. The remainder of the church was rebuilt in the mid-19th century.

Documentary references to the deserted medieval village of Plumtree have been recorded. This is considered most likely to have been located in the vicinity of the modern day Plumtree Farm (Site 14). No archaeological features normally associated with deserted medieval villages have been recorded in the immediate vicinity of the farm. It is possible however that the village lies almost entirely under the modern footprint of the farm, or that traces have been removed by the modern village of Bircotes. Evidence of ridge and furrow cultivation is also recorded in the study area but this is located to the south of the colliery and present villages (Sites 37 and 38).

Blyth tournament field was one of five places licensed for public tournaments in the reign of Richard I and is recorded in documentary sources. It is considered possible that the tournament field is located in the vicinity of Raker field (Site 17). This location has not been confirmed however through field investigation. Field investigation has included a metal detector survey and whilst some artefacts of medieval date were discovered, there were no apparent concentrations and they were interpreted as the result of casual loss (Site 44). The site has now been partially destroyed by the Doncaster bypass.

7.2.5 Post Medieval (c.1540AD to 1900AD) and Modern (1900AD to present)

The late post-medieval and modern periods represent the greatest period of change for the study area, however it has resulted in relatively few recorded archaeological sites. Much of the village of Harworth took on its present form in the late post-medieval period and the Listed Buildings in the village represent a sample of the built heritage from this period (Sites 1, 2, 4-9). A number of other buildings from the village are also recorded including chapel and schoolhouse (Sites 16, 24 and 26). The ruins of a possible shooting box or lodge to Serlby Hall in the south is located within the aptly named Ruins Plantation 9(Site 15).



The only industrial remains from the post-medieval period that are recorded are a possible kiln site at Styrrup Farm identified through field evaluation (Site 43) and a brickyard in Harworth that sits just within the site boundary (Site 40).

The greatest alteration in the modern period to the study area is the construction and operation of Harworth Colliery (Site 25). The colliery acted as the catalyst for the growth of Harworth and the development of Bircotes. The colliery had a fitful start, as work first began in 1913 with the Nottinghamshire Union Mining Company which was started with German capital and labour. This was halted by the outbreak of the First World War and the company went through several owners before it was taken over by Barber Walker of Eastwood in 1922. High quality coal was reached in 1923 (Reid, 1974).

The powerhouse, winder and boiler room from one of the early phases of development remains within the site (Photograph 15), however the majority of the buildings associated with the early phase of development have been demolished and replaced. Bawtry coke works was established in the south –east of the colliery site in 1934 and remained in production until the late 1960s when it was demolished. The site was also formerly crossed by many branch railway and tram lines to transport the coal. These have now been removed and only the main distribution line of the South Yorkshire Joint Railway remains (Site 27) with a terminus to the south of the colliery site. The greatest density of development appears to have occurred by the 1960s and can be seen on an aerial photograph for the site (BWB Consulting, 2007).



Plate 1: Aerial photograph of the colliery site looking west.

The southern boundary is delineated by the South Yorkshire railway with the glassworks to the south. The former ponds and initial phases of Tip1 can be seen at the far end of the site, whilst at the near end, on the right of the photograph the edge of Waterslack plantation can be seen.

A large part of the site was redeveloped in the 1980s including the introduction of new coal preparation plant and the construction of the winding tower which is still extant (BWB Consulting, 2007). The colliery closed in 2006 and subsequently some areas of the site such as the former baths and welfare facilities to the north-east of the site have been demolished.

8.0 HISTORIC LANDSCAPE CHARACTER

A historic landscape characterisation study was undertaken between 1998-2000 for Nottinghamshire (Nottinghamshire County Council. 2005). This study collected information against broad character types, but further sub-division of these was not undertaken. The study was also limited to assessing information from 19th and 20th century OS maps and Sanderson's 1835 map. The information in this section is drawn from this study and the site visit.



The majority of the development site and colliery is classified as having a historic landuse of mineral extraction as would be expected. This character type is known to have become established in the early 20th century. Prior to that, the site was largely composed of regular geometric fields dating from the early 19th century.

The surrounding land historic character types to the east, south and west of the site are predominantly regular geometric fields and modern modified fields. The geometric fields are typical of field systems created during the enclosure period where large tracts of land were available for enclosure without constraining features. The modified modern fields are characterised as such because their historical pattern has been sufficiently altered in the 20th century that the historic character can not be understood or appreciated. This is particularly an issue in areas where there has been substantial alteration during the 20th century and areas of land have been bisected by roads and new development.

The historic landscape character to the north is designated as urban which covers the villages of Harworth and Bircotes. Whilst Harworth has an older core to the village, Bircotes is largely modern in nature and built as a response to the colliery's need for labour.

9.0 SITE WALKOVER SURVEY

A site walkover survey was undertaken on 27th November 2008. The weather was overcast and windy. WYG staff were accompanied by Mike Shaw of Harworth Estates who identified aspects of the colliery workings and past land uses. The proposed development site as indicated on the plan in Appendix B was subject to walkover survey and the results can be seen on Drawing No 02. Site photographs can be seen in Appendix C.

The former colliery buildings on the site are largely extant and are indicated by the grey area on the site walkover plan. The majority of these buildings are anticipated to remain on the site and be bought back into commercial use with alterations to their internal configuration, but minimal alterations to their footprint or appearance. Those buildings and structures identified as due for demolition are all of late 20th century date. The colliery buildings have a historic interest in relation to the development of colliery sites and technology, although the buildings themselves are not of intrinsic heritage value.

In the north of the site a number of former colliery buildings have been demolished and the above ground structures removed (indicated by the purple area on the site walkover plan). Concrete pads and buildings foundations are still extant. The west of the site contains nine settling ponds for waste water from the site. The areas of the main colliery area, demolished buildings and settling ponds on the site are anticipated to have experienced substantial ground disturbance in the past as a result of the building of colliery buildings, introduction of services and localised excavation.



The south-east of the site is dominated by former colliery spoil storage. This area is currently comprised of the remains of the colliery spoil stockpile and is heavily disturbed with machine tracks and localised cut and fill. Substantial drainage ditches have been excavated around the edge of the most southerly spoil area. These stockpile areas are anticipated to have been subject to previous ground disturbance as a result of continued tipping, excavation and tracking of machinery across the site. There is a settling pond located in the west of this storage area which is anticipated to have had a significant localized effect upon any archaeological remains.

An area of derelict ground is located between the main colliery site and railway line forming the southern boundary of the site (indicated by the yellow area on the site walkover plan). This land is currently not utilised and is vegetated with scrub plants. Areas of rubble and refuse from the former operation of the colliery are apparent. This area was the location of the former Bawtry coke works.

The west of the site is dominated by a large former spoil heap (Tip 1) which rises above the surrounding ground level by up to 15m. This spoil heap has been landscaped and reclaimed as a grass covered area with areas of established tree planting on the northern face. The extent to which the original ground surface beneath the tip was disturbed prior to the creation of the tip is unknown, therefore there is a potential that archaeological remains may be preserved in situ below the modern made ground. The north-western area of the site is partially waste ground which is dominated by scrub vegetation and an enclosed storage yard which also appears to be derelict.

Several artificial bunds have been created around the site, mainly for the purposes of screening the site from surrounding areas. The extent of ground disturbance prior to creating the bunds is uncertain and therefore there is a potential that archaeological remains may be preserved in situ beneath them, however the surrounding areas are generally sufficiently disturbed that any archaeological remains would lack a wider context and be difficult to interpret meaningfully.

The east of the site is occupied by woodland. The woodland is crossed by a number of footpaths and is used for recreation by the local community. No features of historic interest such as earthworks were noted within the woodland, although there is some evidence that there has been limited management of the woodland in the past. The southern boundary of the site under consideration is formed of a dismantled railway. Whilst no visible features of the railway remain the line of the railway is clearly discernible and runs in a cutting through this area of woodland. Concrete fence posts from the former railway fence line are still visible; however the rest of the fence has since been removed.

10.0 HISTORIC MAPPING SURVEY

Not all the historic maps examined could be reproduced and some editions of the Ordnance Survey mapping show few changes. Extracts of selected historic maps can be seen in Appendix F with the site boundary indicated.



The earliest map examined for the study area is the Harworth Enclosure map (1804). This map indicates that the majority of the colliery site was under the control of Lord Gallway who held the rights of the manor at this period. The mapping indicates that there may have been a treelined avenue or approach from New Field Road (Scrooby Road) running south through the colliery site, however it is not clear whether this incorporates a degree of artistic licence. The enclosed fields are relatively large indicating that the land may have been classed as waste. The village of Harworth was at this time located to the north-west of the colliery site and the key roads in the area were established.

The tithes for the parish of Harworth were commuted at the same time as the Enclosure Award was made and therefore there is no tithe map for the parish. The tithe map for Styrrup (1841) covers the area to the south of the colliery and yielded little additional information. The majority of the fields adjoining the parish of Harworth were under arable cultivation.

By the time of the first edition 6" to 1 mile Ordnance Survey mapping (1890) changes had been made to the development site. There had been a degree of sub-division of the fields into smaller entities which may reflect the land moving from manorial control into ownership or tenantry for agricultural purposes. Droversdale Wood, Ruins Plantation and Waterslack Plantation were all established by this period. Within the boundary of the colliery site a brick and tile works had been established (Site 40) with several long linear buildings depicted and some evidence of excavation. In addition to the brick and tileworks two small quarries for gravel and sand were established in the northern central area of the site.

Few changes were evident on the 1900 OS mapping. The gravel pit had been filled in and the sand pit had gone out of use and was marked as 'old'. The 1922 OS mapping showed the start of the colliery development. Part of the South Yorkshire Railway had been constructed into the colliery site from the east and a branch laid to the brick and tileworks. Several colliery buildings and bunds were evident from the mapping. Two further small gravel pits and a sand pit had also been opened. Excavations of pits by the brick and tileworks were clearly marked on the mapping.

By 1948 significant alterations had been made to the site of the colliery which may have been catalysed by the Second World War and an increased need for coal. The central part of the site had been developed with new buildings and train and tram lines which connected with the South Yorkshire Railway which now continued west from the colliery. There was evidence that Tip 1 was being created by the indication of earthworks in the west of the site. The brick and tileworks had gone out of use by this time and the buildings associated with it demolished although the remains of the extraction pits were still marked. Although not marked as such Bawtry coke works in the south of the site were also established by this period and several of the buildings associated with this were marked. The off-site Tip 2 to the south-west of the colliery site was also established by this period and served by an aerial ropeway.

The 1950s and 60s evidenced continued development of the colliery and coke works until the site reached what appears to have been its greatest density of development in the late 1960s. The 1980s



and 1990s were a period of alteration within the colliery site and a number of buildings were demolished and replaced until the colliery took on its current form by the late 1990s.

11.0 SITE INVESTIGATION RESULTS

Geotechnical and geoenvironmental investigations have been undertaken within the site in several locations. For full information regarding the site investigations readers are referred to the Phase I and Phase II Geoenvironmental Reports for the site (BWB, 2007 and BWB 2008). No site investigations have been undertaken on the north-western boundary of the site north of the settling ponds, or within Droversdale Woods. The results of site investigations on Tip 1 and within the main colliery site are not discussed as the evidence from other sources have indicated that archaeological remains will not be present in these areas. The depth of made ground in these areas extends from 1m-4m in the main colliery area, to over 20m on Tip 1. The results of the site investigations in other areas are summarised below.

The former colliery spoil storage areas display a mixed depth of made ground. The made ground is greatest in the east of the northern spoil storage area where the site tapers into the line of the former disused railway and Droversdale Woods and extends to a depth of over 4m. This depth of made ground decreases moving west across the site to a recorded minimum of 0.8m on the boundary of the main colliery site and the spoil storage area. The greater depth of made ground would be anticipated in this area as the historic mapping for the site indicates that railway distribution lines ran into this area.

The southern spoil storage area has a depth of made ground at the western and northern edges of up to 1m which decreases as you move to the south and east to depths of less than 0.5m. The made ground is described largely as colliery spoil with modern rubbish inclusions. There is no indication of whether the original ground surface of the 19th and early 20th century was truncated during the colliery spoil storage operations, however given the lack of relict topsoil identified in the trial pits this is considered likely. The extent of truncation can not be ascertained from the information available.

The former coke works in the south of the site demonstrates depths of made ground over 5m in depth. Although the works were demolished to slab level there are a number of subterranean features which are still extant. The made ground largely comprises demolition material with structural remnants such as possible chimneys, concrete cells and brick walls visible in the test pits as they were excavated. The geoenvironmental results indicate a high level of chemical contamination in this area.

12.0 ARCHAEOLOGICAL POTENTIAL

The archaeological potential of different areas of the site are discussed in general terms. The specific impacts due to different types of development will be addressed in documentation to accompany each planning application.



The main colliery pit head area, Tip 1, the former Bawtry coke works and the northern spoil storage area in the east of the site have been substantially developed and redeveloped in the past. Historic mapping, photographic evidence for the site and geotechnical logs indicate that the area has been substantially disturbed for a depth of between 2m and 4m. It is considered highly unlikely that any pre-colliery archaeological remains will remain beneath these areas. Archaeological remains for earlier phases of the colliery and coke works may survive below the existing ground surface, however these are considered to be of negligible heritage value. Due to the negligible potential to discover archaeological remains of heritage value in these areas it is considered that any development in these areas will neutral with regard to the significance of impact upon heritage.

The former brick and tileworks is located on the northern boundary of the site by the settling ponds. The extent of survival of the brick and tileworks is unknown. There is considered to be a negligible potential to record archaeological remains pre-dating the brick and tileworks in the east of the site due to localized quarrying. The potential for archaeological remains pre-dating the brick and tileworks in the west of the site where the buildings were located is considered to be relatively low as the buildings are anticipated to have truncated any remains in this area. It is not clear to what extent archaeological remains of the brick and tileworks have survived. The brick and tileworks are considered to be of low cultural heritage value and therefore any impacts upon them may range from intermediate-minor to neutral significance.

Cropmarks relating to the late prehistoric and Roman brickwork field patterns are recorded within the area forming the southern spoil storage area. The extent to which the original ground surface in this area was truncated when the spoil storage area was created is unknown. The site investigations in this area have not identified relict topsoil, therefore the original ground surface is anticipated to have been truncated. The extent of truncation into subsoils is unknown, therefore there is a potential that partially truncated archaeological remains of the cropmarks may still survive in this area. The cropmarks form part of a very extensive historic landscape underlying the modern landscape. Whilst the cropmarks are likely to be field boundaries and are of low intrinsic value, they have the potential to contribute towards regional research objectives and are therefore considered to be up to medium value overall. Any impacts upon them may range from intermediate to neutral significance.

There is a relatively low potential to discover previously unrecorded archaeological remains within Droversdale Woods. The creation of the plantation in the 19th century is likely to have disturbed any archaeological remains through planting and the subsequent disturbance by roots. The line of the dismantled railway is visible in the woods as a cutting, however the railway is considered to have a negligible to low cultural heritage value and therefore any impacts upon the railway would be of minor to neutral significance.

The main colliery pit head buildings are of modern date. The buildings are of heritage interest with regard to the development of coal mining and documenting the changes that occurred in the modern period as a result of changes in technology. The winding tower is of particular interest as it is believed to



be the tallest winding tower in the country. The value of the buildings is considered to be medium to low. The re-opening of the coal mine would secure the survival and maintenance of the pit head buildings which would be a slight positive impact. The significance of impact would therefore be minor beneficial. Should the coal mine not be re-opened at the pit head buildings demolished this would be a substantial negative impact. The impact significance without mitigation would therefore be intermediate adverse.

There is a potential that development on the Harworth Colliery site could affect the setting of cultural heritage sites. The types of sites that would be affected are upstanding archaeological sites and built heritage such as Listed Buildings. The potential impacts upon these sites are highly dependent upon the nature of development proposals that are brought forward and therefore impacts upon the setting of features should be considered for each potential development individually. There are very few archaeological sites in the area which exhibit upstanding remains. These are largely of low value and not anticipated to be significantly affected. The majority of built heritage and Listed Buildings in the village of Harworth have a context and setting which is focused within the village and therefore alterations to the colliery site are unlikely to be significant to their setting. The built heritage and Listed Buildings outside of the development site have a variety of settings and therefore impacts upon these may be variable. It should be recognized that the existing buildings of the colliery and other industrial sites may have already had an impact upon the setting of built heritage sites and any impacts should be assessed as a variation from the existing baseline.

The historic landscape character of the colliery site and immediate surroundings is characterised as related to mineral extraction and industry. These landscape character areas are considered to have a relatively low cultural heritage value due to their recent origins. Development within these areas may alter the historic landscape character but this is unlikely to have a significant impact on the landscape character of the area compared to the existing baseline.

13.0 RECOMMENDATIONS FOR FURTHER ASSESSMENT

It is not recommended that further evaluation or mitigation with regard to archaeological issues is undertaken for any development proposals within the areas of Tip 1, settling ponds, main colliery pit head, Bawtry coke works, the northern spoil storage area or Droversdale Woods. The potential to record previously unrecorded archaeological remains in this area is considered negligible.

The extent of truncation and disturbance in the vicinity of the former brick and tileworks and the southern spoil storage area is unknown. There is a moderate potential that archaeological remains may still be present in these areas and therefore it is recommended that further evaluation is undertaken. The aim of the evaluation would be to confirm the presence or absence of archaeological remains, their form, extent, survival, period and potential significance. This will then allow an appropriate mitigation strategy to be devised for any future development within these areas.



Geophysical survey and fieldwalking are not suitable within these areas due to the existing ground cover and depth of made ground. The results from these techniques would probably be ambiguous and yield little additional information regarding the former brick and tileworks and cropmarks, for which basic information is already available.

It is considered that evaluation excavations (trial trenches) which are targeted at the known locations of features such as cropmarks and the buildings of the former brick and tileworks would be the most effective method of evaluating the survival and significance of these sites. Site investigations are planned in the vicinity of the former brick and tileworks and it is proposed in the first instance that these site investigations are monitored to identify whether archaeological evaluation excavations are warranted in this area.

The scope of evaluation should be decided in consultation with the County Archaeologist for Nottinghamshire and be carried out in accordance with a Written Scheme of Investigation agreed in advance. Any archaeological evaluation should be carried out by an appropriately qualified and experienced archaeologist. Consultation with the Council has indicated that these evaluations may be undertaken as a condition of planning permission and are not required pre-determination.

It is anticipated that a substantial archive of drawings, specifications and records associated with the pit head buildings have been retained by UK Coal. If the pit head buildings are to be demolished it is recommended that the extent of this archive is reviewed and a built heritage report compiled which identifies the heritage significance of the buildings. This archival review may subsequently be supplemented by site inspection, recording and photographs of the pit buildings. This built heritage assessment may only be required in the event that pit head buildings are demolished and should be undertaken prior to their demolition.

Any future development proposals for the site should be assessed in light of the information in this report and the results of any future evaluation. The assessment should also consider the impacts upon the setting of cultural heritage features. A mitigation strategy appropriate for the development proposals should be recommended as part of the assessment.

This approach to evaluation, mitigation and assessment has been agreed in principle with Chris Robinson of Nottinghamshire County Council.



14.0 REFERENCES

- ARCUS (1994) *Desk-Based Assessment. Land at Harworth, Nottingham. Report 197*. Unpublished client report
- Bassetlaw District Council (2001) *Bassetlaw Local Plan*
- British Geological Survey (1967) *Geological Survey of Great Britain, Sheet 101 East Retford*. Scale 1" to 1 mile
- BWB Consulting (2007) *Harworth Colliery Phase 1 Geo-Environmental Desk-Study* Unpublished client report.
- BWB Consulting (2008) *Harworth Colliery Phase 2 Geo-Environmental Desk-Study* Unpublished client report.
- DoE (1990) *Planning Policy Guidance Note 16 Archaeology and Planning*.
- DoE (1994) *Planning Policy Guidance Note 15 Planning and the Historic Environment*.
- Government Office for the East Midlands (2002) *East Midlands Regional Plan (Regional Spatial Strategy)*
- HMSO (1979) *Ancient Monuments and Archaeological Areas Act*.
- HMSO (1990) *Planning (Listed Buildings and Conservation Areas) Act*.
- John Samuels Archaeological Consultancy (1997) *Archaeological Desk-Based Assessment. Land at Harworth. Report 255/97/01*. Unpublished client report.
- John Samuels Archaeological Consultancy (1997) *proposed extension to Harworth Colliery Spoil Tip. Supplementary Note on Metal Detector Survey. Report 255/97/02*. Unpublished client report.
- Multi Agency Geographical Information for the Countryside (www.magic.gov.uk). Accessed September 2008.
- Trent and Peak Archaeological Trust (1992) *Archaeological watching brief at Harworth–Bircotes, Nottinghamshire*. Unpublished client report.
- Reid C. (1974) *Harworth and Bircotes, 50 years*. Bircotes WEA Class.

Historic Mapping

Harworth Enclosure Map and Award, 1804. Ref: EA 126/2/9

Styrrup Tithe Map and Award, 1841 Ref: At 130/1a

Ordnance Survey Mapping OS Nottinghamshire 6 NW and 5 NE, 6" to 1mile/1:10,560 1890, 1900, 1922, 1948, 1956, 1967.

Ordnance Survey mapping 1:10,000 1982, 2000, 2006.



Appendix A – Assessment Methodology



Cultural Heritage Impact Assessment Methodology

No standard method of evaluation and assessment is provided for the assessment of significance of effects upon cultural heritage, therefore a set of evaluation and assessment criteria have been developed using a combination of the Secretary of State's criteria for Scheduling Monuments (PPG16, Annex 3), Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07 and Transport Analysis Guidance (TAG Unit 3.3.9, Heritage of Historic Resources Sub-Objective). Professional judgement is used in conjunction with these criteria to undertake the impact assessment.

Value

The table below provides guidance on the assessment of cultural heritage value on all archaeological sites and monuments, historic buildings, historic landscapes and other types of historical site such as battlefields, parks and gardens, not just those that are statutorily designated.

Value	Examples
Very High	World Heritage Sites, Scheduled Monuments of exceptional quality, or assets of acknowledged international importance or can contribute to international research objectives Grade I Listed Buildings and built heritage of exceptional quality Grade I Registered Parks and Gardens and historic landscapes and townscapes of international sensitivity, or extremely well preserved historic landscapes and townscapes with exceptional coherence, integrity, time-depth, or other critical factor(s)
High	Scheduled Monuments, or assets of national quality and importance or than can contribute to national research objectives Grade II* and Grade II Listed Buildings, Conservation Areas with very strong character and integrity, other built heritage that can be shown to have exceptional qualities in their fabric or historical association. Grade II* and II Registered Parks and Gardens, Registered Battlefields and historic landscapes and townscapes of outstanding interest, quality and importance, or well preserved and exhibiting considerable coherence, integrity time-depth or other critical factor(s)
Medium	Designated or undesignated assets of regional quality and importance that contribute to regional research objectives Locally Listed Buildings, other Conservation Areas, historic buildings that can be shown to have good qualities in their fabric or historical association Designated or undesignated special historic landscapes and townscapes with reasonable coherence, integrity, time-depth or other critical factor(s) Assets that form an important resource within the community, for educational



Value	Examples
	or recreational purposes.
Low	<p>Undesignated assets of local importance</p> <p>Assets compromised by poor preservation and/or poor survival of contextual associations but with potential to contribute to local research objectives.</p> <p>Historic (unlisted) buildings of modest quality in their fabric or historical association</p> <p>Historic landscapes and townscapes with limited sensitivity or whose sensitivity is limited by poor preservation, historic integrity and/or poor survival of contextual associations.</p> <p>Assets that form a resource within the community with occasional utilisation for educational or recreational purposes.</p>
Negligible	<p>Assets with very little or no surviving cultural heritage interest.</p> <p>Buildings of no architectural or historical note.</p> <p>Landscapes and townscapes that are badly fragmented and the contextual associations are severely compromised or have little or no historical interest.</p>

Magnitude

The magnitude of the potential impact is assessed for each site or feature independently of its archaeological or historical value. Magnitude is determined by considering the predicted deviation from baseline conditions. The magnitude of impact categories are adapted from the Transport Assessment Guidance (TAG Unit 3.3.9) and Design Manual for Roads and Bridges, Volume 11, Part 3, Section 2, HA 208/07.

Magnitude of Impact	Typical Criteria Descriptors
Substantial	<p>Impacts will damage or destroy cultural heritage assets; result in the loss of the asset and/or quality and integrity; cause severe damage to key characteristic features or elements; almost complete loss of setting and/or context of the asset. The assets integrity or setting is almost wholly destroyed or is severely compromised, such that the resource can no longer be appreciated or understood. (Negative)</p> <p>The proposals would remove or successfully mitigate existing damaging and discordant impacts on assets; allow for the restoration or enhancement of characteristic features; allow the substantial re-establishment of the integrity, understanding and setting for an area or group of features; halt rapid degradation and/or erosion of the heritage resource, safeguarding substantial elements of the heritage resource. (Positive)</p>
Moderate	<p>Substantial impact on the asset, but only partially affecting the integrity; partial loss of, or damage to, key characteristics, features or elements; substantially</p>



Magnitude of Impact	Typical Criteria Descriptors
	<p>intrusive into the setting and/or would adversely impact upon the context of the asset; loss of the asset for community appreciation. The assets integrity or setting is damaged but not destroyed so understanding and appreciation is compromised. (Negative)</p> <p>Benefit to, or restoration of, key characteristics, features or elements; improvement of asset quality; degradation of the asset would be halted; the setting and/or context of the asset would be enhanced and understanding and appreciation is substantially improved; the asset would be bought into community use. (Positive)</p>
Slight	<p>Some measurable change in assets quality or vulnerability; minor loss of or alteration to, one (or maybe more) key characteristics, features or elements; change to the setting would not be overly intrusive or overly diminish the context; community use or understanding would be reduced. The assets integrity or setting is damaged but understanding and appreciation would only be diminished not compromised. (Negative)</p> <p>Minor benefit to, or partial restoration of, one (maybe more) key characteristics, features or elements; some beneficial impact on asset or a stabilisation of negative impacts; slight improvements to the context or setting of the site; community use or understanding and appreciation would be enhanced. (Positive)</p>
Negligible / No Change	<p>Very minor loss or detrimental alteration to one or more characteristics, features or elements. Minor changes to the setting or context of the site. No discernible change in baseline conditions (Negative).</p> <p>Very minor benefit to or positive addition of one or more characteristics, features or elements. Minor changes to the setting or context of the site No discernible change in baseline conditions. (Positive).</p>

Magnitude (scale of change) is determined by considering the predicted deviation from baseline conditions. Quantifiable assessment of magnitude has been undertaken where possible. In cases where only qualitative assessment is possible, magnitude has been defined as fully as possible.

During the assessment any embedded mitigation has been considered in the impact assessment and this is clearly described in this section (cross referring the development description). Therefore, the magnitude of the impacts described herein will be stated before and after additional mitigation has been taken into consideration.



Impacts may be of the following nature and will be identified as such where relevant:

- Negative or Positive.
- Direct or indirect.
- Temporary or permanent.
- Short, medium or long term.
- Reversible or irreversible.
- Cumulative.

Significance

By combining the value of the cultural heritage resource with the predicted magnitude of impact, the significance of the effect can be determined. This is undertaken following the table below. The significance of effects can be beneficial or adverse.

Significance of Effects	Magnitude of Impact			
	Substantial	Moderate	Slight	Negligible / no Change
Very High	Major	Major – Intermediate	Intermediate	Minor
High	Major – Intermediate	Intermediate	Intermediate – Minor	Neutral
Medium	Intermediate	Intermediate	Minor	Neutral
Low / Negligible	Intermediate – Minor or Minor-Neutral	Minor or Minor - Neutral	Minor – Neutral or Neutral	Neutral

Significance should always be qualified as in certain cases an effect of minor significance could be considered to be of great importance by local residents and deserves further consideration. To aid in the assignment of significance the following significance criteria have been developed to enable effective and transparent discrimination between categories.

The significance of effect is considered both before and after additional mitigation measures proposed have been taken into account.

Level of Confidence

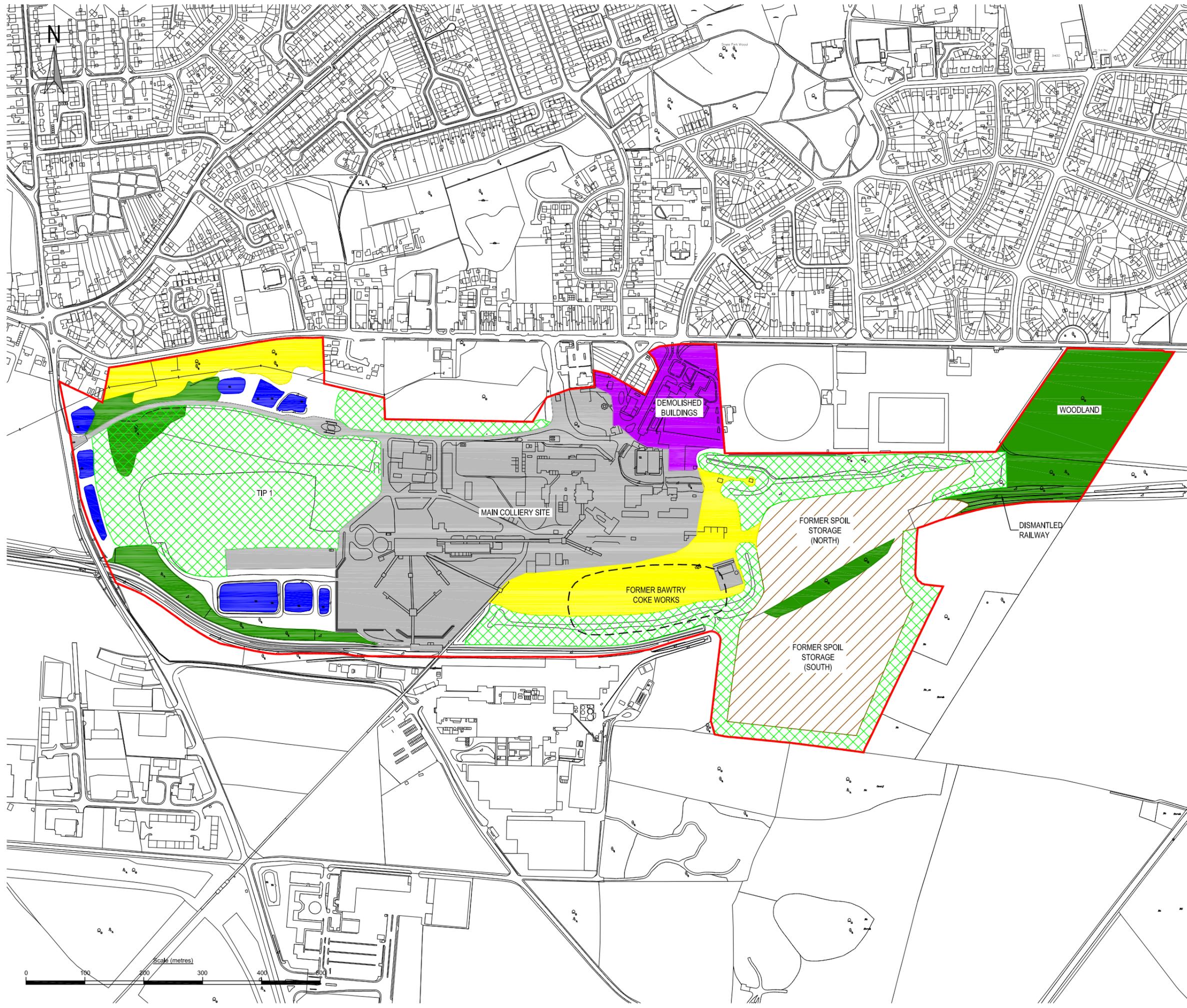
Given that predictions can only be as accurate as the data they are based on it is important to attribute a level of confidence to which the significance of cultural heritage effects has been assessed. The table below defines the confidence levels referred to in this report.



Confidence Level	Description
High	The significance of the cultural heritage effect is an informed estimate likely to be based on reliable data or subjective judgement with reference to similar schemes. Further information would not result in any change to assessment of significance.
Low	The significance of the cultural heritage effect is a best estimate likely to be based on subjective judgement without reference to similar schemes. Further information would be needed to confirm assessment of significance.



Appendix B – Site Location and Boundary Plans



KEY

	SITE BOUNDARY
	PONDS
	ARTIFICIAL BUNDS & TIPS
	FORMER COLLIERY SPOIL STORAGE
	COLLIERY AREA - MAINLY HARDSTANDING
	DEMOLISHED BUILDINGS - HARDSTANDING
	WOODLAND
	DERELICT GROUND / WASTELAND

REV	DESCRIPTION	BY	CHK	APP	DATE
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Project: A049315
**HARWORTH COLLIERY
 CULTURAL HERITAGE ASSESSMENT**

Drawing Title:
SITE WALKOVER PLAN

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
AS SHOWN	CM	16.12.08	KRH	07.01.09	PH	07.01.09
Project No.	Office	Type	Drawing No.		Revision	
A049315	4104	597	02			



Appendix C – Site Photographs



Photograph 1: Area of demolished former buildings showing remaining foundations



Photograph 2: Site office and control room



Photograph 3: Former pumping house to be demolished



Photograph 4: Looking west across colliery site from northern boundary bund



Photograph 5: Former northern colliery spoil storage area (west)



Photograph 5: Former northern colliery spoil storage area (east)



Photograph 6: Droversdale Woods to east of colliery



Photograph 7: Line of dismantled railway in Droversdale Woods, looking west



Photograph 7: Line of dismantled railway in Droversdale Woods, looking east



Photograph 8: Former southern colliery spoil storage area (east)



Photograph 9: Former southern colliery spoil storage area (west)



Photograph 10: End of railway line forming southern boundary of colliery site



Photograph 11: Derelict ground in south of colliery site



Photograph 12: Looking north towards main colliery site from railway bunding



Photograph 13: Looking east to main colliery site from west access road



Photograph 14: Looking north to settling ponds from west access road



Photograph 15: Settling ponds on northern boundary of main colliery site



Photograph 15: Powerhouse, winder and boiler room from early colliery development phase



Appendix D– Planning Policies



The East Midlands Regional Plan (Regional Spatial Strategy)– 2002

Policy 26 Protecting and Enhancing the Region’s Natural and Cultural Heritage

Sustainable development should ensure the protection, appropriate management and enhancement of the Region’s natural and cultural heritage. As a result the following principles should be applied:

- the Region’s internationally and nationally designated natural and historic assets should receive the highest level of protection;
- neither direct nor indirect damage to EU designated Natura 2000 sites will not be permitted;
- damage to other natural and historic assets or their settings should be avoided wherever and as far as possible, recognising that such assets are usually irreplaceable;
- unavoidable damage must be minimised and clearly justified by a need for development in that location which outweighs the damage that would result;
- unavoidable damage which cannot be mitigated should be compensated for, preferably in a relevant local context and where possible in ways which also contribute to social and economic objectives;
- there should be a net increase in the quality and active management of natural and historic assets across the Region in ways that promote adaptation to climate change, and an increase in the quantity of environmental assets generally; and
- the Region’s best and most versatile agricultural land should be protected from permanent loss or damage.

Policy 27 Regional Priorities for the Historic Environment

The historic environment should be understood, conserved and enhanced, in recognition of its own intrinsic value, and its contribution to the Region’s quality of life.

Across the Region and particularly in areas where growth or regeneration is a priority, development should promote sensitive change of the historic environment. To achieve this, Local Planning Authorities should:

- identify and assess the significance of specific historic assets and their settings;
- use characterisation to understand their contribution to the landscape or townscape in areas of change;
- encourage the refurbishment and re-use of disused or under-used buildings of some historic or architectural merit and incorporating them sensitively into regeneration schemes;
- promote the use of local building materials; and
- recognise the opportunities for enhancing existing tourism attractions and for developing the potential of other areas and sites of historic interest as part of Green Infrastructure, having regard to potential impacts on biodiversity.



Bassetlaw Local Plan – 2001

POLICY 6/4

Within the Special Landscape and Heritage Area identified on the Proposals Map, development will be strictly controlled and proposals, which would have an adverse effect, on the area's outstanding landscape and archaeological, ecological and geological features, will not be permitted.

POLICY 6/6

Permission will not be granted for development that would destroy or detrimentally affect historic parks and gardens and their settings.

POLICY 6/8

Planning Permission will not be given for development that would destroy or adversely affect either trees subject to preservation orders, hedges subject to hedgerow retention notices, or ancient woodlands.

POLICY 6/9

Planning permission for development which would adversely affect trees, hedgerows or woodlands which contribute significantly to the appearance of the area will only be granted where all reasonable opportunities to incorporate them into the development and to avoid or minimise the adverse effects of development are taken.

POLICY 6/10

Planning permission for development affecting listed buildings or their settings will only be granted when:

- a) any proposed alterations are fully in sympathy with the buildings' existing character;
- b) any proposed extension to a listed building does not detract from the character of the buildings as a result of its appearance, scale or nature; and
- c) the setting of the listed building is not adversely affected.

POLICY 6/11

Within Conservation Areas, planning permission will only be granted for development if it:

- a) would not detract from the special character or appearance of the area; or
- b) contributes to the enhancement of the area

POLICY 6/12

Permission will not be given for development that would destroy or detrimentally affect a site of national importance whether scheduled or not, a site of major local archaeological or historic interest or the setting of such features.



Appendix E— Recorded Cultural Heritage Sites



Recorded Cultural Heritage Sites (English Heritage, NMR and HER)

Site Number	Identifier	Grid Reference	Period	Description
1	420158	SK 63609 90744	Post-Medieval	Bawtry Lodge, Bawtry Road. Listed Building Grade II.
2	241422	SK 61314 91603	Post-Medieval	Syringa House, Main Street. Listed Building Grade II.
3	241417; M5083; 321057; L5083; L9465; L9466	SK 61370 91722	Medieval / Post-Medieval	Church of All Saints, Church Lane. The church includes remains of the medieval tower. Listed Building Grade II.
4	241423	SK 61269 91585	Post-Medieval	Barn at Syringa House, Main Street. Listed Building Grade II.
5	241421	SK 61583 91560	Post-Medieval	Barn, 4 metres east of Post Office, Main Street. Listed Building Grade II.
6	241420	SK 61558 91544	Post-Medieval	High Farmhouse, Main Street. Listed Building Grade II.
7	420160	SK 63120 90125	Post-Medieval	Harworth Lodge, Bawtry Road. Listed Building Grade II.
8	241418	SK 61590 91495	Post-Medieval	Grange Farmhouse, Main Street. Listed Building Grade II.
9	241419	SK 61571 91540	Post-Medieval	Barn At Grange Farm, Main Street. Listed Building Grade II.



Site Number	Identifier	Grid Reference	Period	Description
10	321097	SK 635 907	Iron Age / Romano-British	Cropmarks of a field system & trackways, rectangular and square enclosures. The plan is incomplete, and it is possible that the remains were more extensive over land now occupied by the colliery and the adjacent housing estates of Bircotes. The cropmarks form part of a much larger brickwork field pattern in the region.
11	321098; L5054	SK 638 903	Iron Age / Roman	Cropmarks of an enclosure near The Holt with faint divisions within. Encircling field boundaries are also faintly visible. Combined with the data from the previous NMP mapping, the site is best described as a number of globular, conjoined, enclosures aligned within an extensive field system. These form part of extensive cropmark evidence in the area.
12	321096; L5053; L5055; L5056;	SK 639 913	Unknown	Extensive cropmark evidence of brickwork field patterns, trackways and enclosures. A section was cut through the "lane" at SK 636913 in 1977. No finds were made during the excavations. The excavation provided no conclusive proof that the pair of ditches defined a lane. These form part of a very extensive late Iron Age / Roman field system in the area.
13	L5060; 321085	SK 629 906	Roman	A Roman bronze sestertius of Antoninus Pius, Rome mint AD 145-161 was found on the surface of a ploughed field north of Coronation Clump.



Site Number	Identifier	Grid Reference	Period	Description
14	321082; L5078	SK 632 923	Medieval	Documentary reference to a deserted village of Plumtree, Harworth. The precise location is not known. No traces of medieval occupation were seen in the arable fields to the east of Plumtree Farm. The modern mining village of Bircotes has encroached close to it and therefore remains may have been removed.
15	894571; L5582	SK 6320 9098	Post-Medieval	Remains of a small round building, brick inner, stone outer, with short radial stone walls to NW and NE. Probably an 18th/19th century shooting box or lodge to Serlby Hall.
16	321060; L5583	SK 6145 9160	Post-Medieval	The schoolhouse at Harworth was built in 1705, and enlarged 1876. The schoolhouse is a brick built structure. Renovations to the 1876 extension include the cement facing of the exterior. An infants' wing, and boys' clockroom were added c. 1910.
17	321075; L5584	SK 6107 9007	Medieval	Raker Field may be the site of the medieval Blyth tournaments. Documentary reference to tournament field, licenced AD 1194. One of 5 places licenced for public tournaments in the reign of Richard I. No confirmation of the published site was obtained during field investigation. The site is now partially occupied by the Doncaster Bypass.



Site Number	Identifier	Grid Reference	Period	Description
18	321094; L10743	SK 646 921	Iron Age / Roman	An Iron Age/ Roman trackway, field boundaries, ditches and a ditch of uncertain date are visible as cropmarks on air photographs. The boundaries lie on a north-west south-east alignment and are spaced between 85m and 95m apart. These boundaries continue on the other side of the A638 and are part of an extensive field system in the area.
19	321095; L5057; L5057; L8773	SK 636 920	Iron Age / Roman	Iron Age/ Roman rectilinear enclosures, curvilinear enclosures and ditches are visible as cropmarks on air photographs. Part of a cluster at the edge of a housing estate east of Bircotes. Roman pottery has been found nearby during trenching.
20	321099	SK 646 910	Iron Age / Roman	Iron Age/ Roman field boundaries, ditches and enclosures are visible as cropmarks on air photographs. The area is bisected by a bank which may be of Roman or early medieval date.
21	321100; L5089; L5090	SK 622 904	Iron Age / Roman	Indistinct cropmarks of fields south of Harworth Colliery. An arrangement of near continuous field boundaries are visible forming large rectilinear fields. These are possibly part of the same field system visible elsewhere in the study area.
22	321101; L5062	SK 621 923	Unknown	Field system (cropmarks) of uncertain date. These features are part of a wider cropmark complex.
23	321102	SK 609 901	Iron Age / Roman	Linear feature visible as cropmark, possibly part of the field system in the wider area.



Site Number	Identifier	Grid Reference	Period	Description
24	894572	SK 6092 9063	Post-Medieval	Wesleyan chapel, built c1825. Brick with polygonal end and a small inscribed tablet.
25	916074	SK 6251 9125	Modern	Harworth Colliery. Coal mine dating from the second decade of the twentieth century. Mostly rebuilt in the 1980's.
26	1315978	SK 6174 9148	Post-Medieval	The dilapidated remains of a probable 19th century house.
27	1374915	-	Modern	The South Yorkshire Joint Railway was primarily opened to serve the collieries around Tickhill and Maltby. It joined the Hull and Doncaster Railway at Kirk Sandall Junction and the Manchester, Sheffield and Lincoln Railway at Anston. Opened in 1909, it closed in 1929 and was partially dismantled.
28	1434850;	SK 608 920	Unknown	Ditches of uncertain date are visible as cropmarks on air photographs..
29	1434865	SK 626 922	Modern	20th Century military camps are visible as structures on air photographs.
30	1434869	SK 628 905	Modern	20th Century sand pits are visible as earthworks on air photographs.
31	1434888	SK 622 915	Modern	20th Century trenches are visible as earthworks on air photographs.
32	1434890	SK 6168 9031	Modern	A 20th century spoil heap is visible as an earthwork on air photographs.
33	1434897	SK 633 902	Modern	Possible 20th Century ordnance stores are visible as structures on air photographs. The features are all alongside roads or trackways.



Site Number	Identifier	Grid Reference	Period	Description
34	1434902; L5061	SK 608 911	Medieval	A probable medieval bank, ditch and enclosure and ditches of uncertain date are visible as cropmarks on air photographs.
35	1434939; L5162	SK 616 908	Iron Age / Roman	Iron Age / Roman field boundaries are visible as cropmarks on air photographs.
36	1434945	SK 6445 9101 to SK 6454 9000	Early Medieval	An early medieval linear earthwork is visible as a cropmark on air photographs. The earthwork is known as Roman Bank and is visible as a broad 8m wide bank for much of its length but also appears to be flanked by a ditch or ditches in places. It appears to overlie Iron Age / Roman features to the north.
37	1434967	SK 643 906	Medieval / Post-Medieval	Medieval / post-medieval ridge and furrow is visible as earthworks on air photographs.
38	1434968	SK 619 906	Medieval / Post-Medieval	Medieval / post-medieval ridge and furrow is visible as earthworks on air photographs.
39	1434972	SK 622 917	Post-Medieval	Post-medieval narrow ridge and furrow is visible as earthworks and cropmarks on air photographs.
40	M5082; L5082	SK 619 914	Modern	Brickyard, Harworth. Identified from OS mapping and in use 1835.
41	L10959	SK 60850 91261	Roman	One piece of Roman greyware was found at the south-eastern end of the ridge at Styrrup Hall Farm.
42	L10961	SK 60832 90946	Post-Medieval	A post-medieval field boundary confirmed through field evaluation.

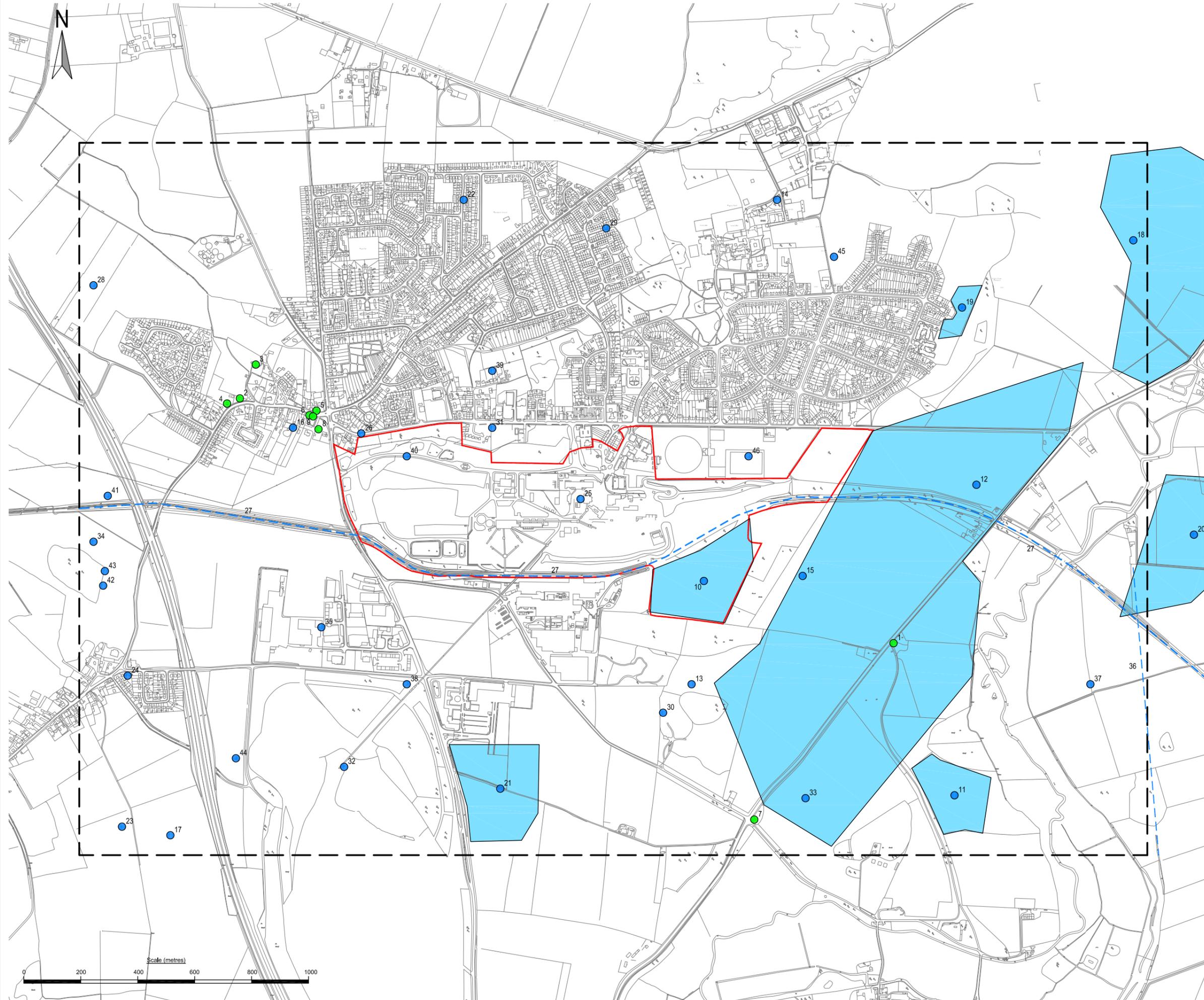
WYG Environment



Site Number	Identifier	Grid Reference	Period	Description
43	L10968	SK 60840 90997	Modern	Site of a possible kiln at Styrrup Hall Farm identified through geophysical survey anomaly and a large pile of 19th century firebricks.
44	L11007	SK 6130 9034	Medieval	Metal detector survey identified some medieval artefacts. The significant finds comprise a medieval silver seal matrix, a copper alloy rumbler bell and two sherds of medieval pottery. There is no apparent concentration, and they would seem to represent casual loss or the results of manuring.
45	L5058	SK 624 921	Unknown	Linear cropmark features probably part of an enclosure or small field with a double ditched linear feature, such as a trackway leading from it.
46	L5059	SK 631 914	Unknown	Linear cropmark features probably part of the extensive field system observed to the south.
-	894569	SK 61 91	Iron Age	Iron Age coin, gilded bronze copy of a gold stater of Corieltauvian type.

KEY

-  STUDY AREA
-  SITE BOUNDARY
-  LISTED BUILDING
-  CULTURAL HERITAGE FEATURE
-  APPROXIMATE AREA OF CROP MARKS



REV	DESCRIPTION	BY	CHK	APP	DATE
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Project: A049315
**HARWORTH COLLIERY
 CULTURAL HERITAGE ASSESSMENT**

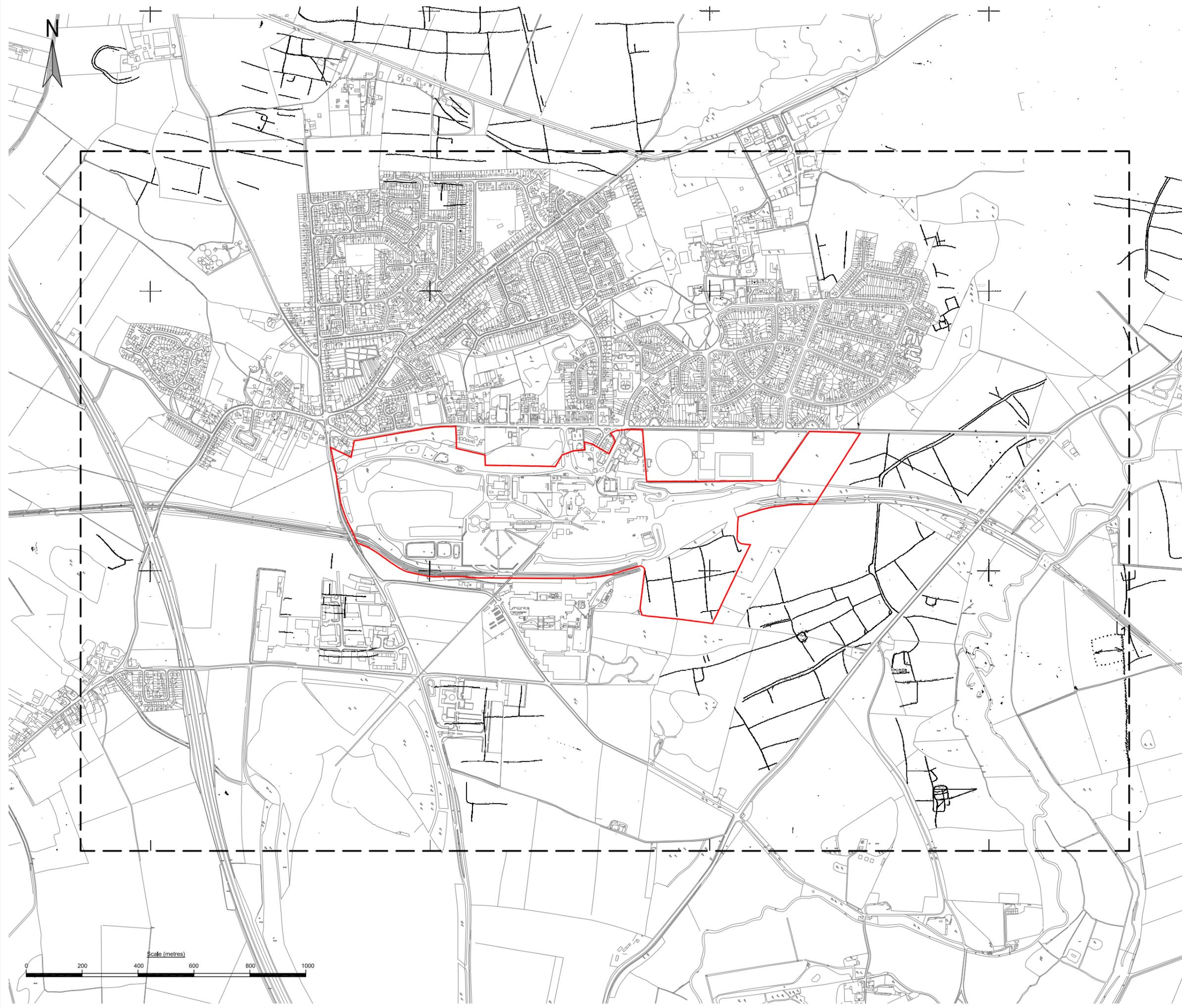
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Project No.	Office	Type	Drawing No.	Revision		
A049315	4104	597	03			

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KEY

-  STUDY AREA
-  SITE BOUNDARY
-  CROP MARK FROM AERIAL PHOTOGRAPH (DATA SUPPLIED BY ENGLISH HERITAGE)



REV	DESCRIPTION	BY	CHK	APP	DATE
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Drawing Title:
 AERIAL PHOTOGRAPH TRANSCRIPTIONS

Scale @	A3	Drawn	Date	Checked	Date	Approved	Date
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Project No.	Office	Type	Drawing No.		Revision		
A049315	4104	597	04				

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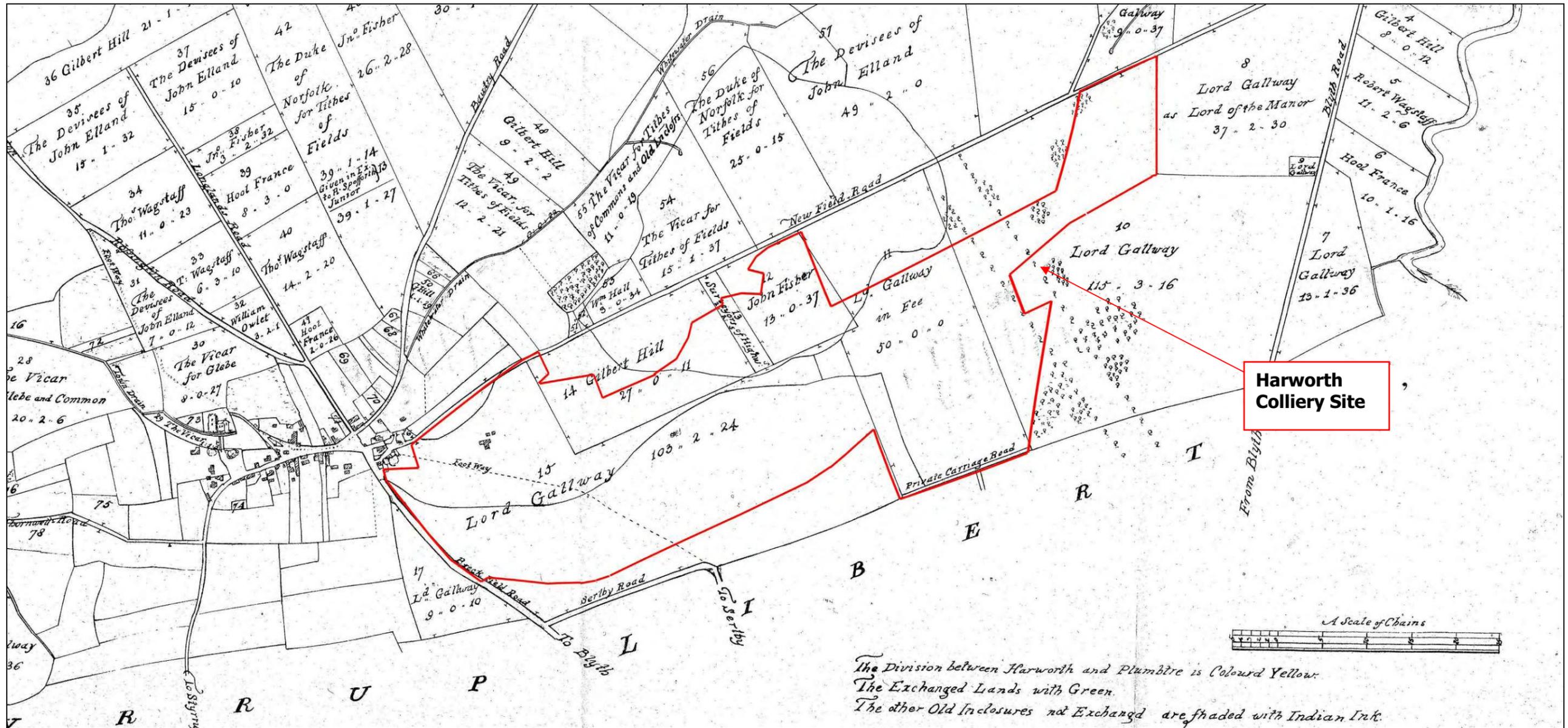




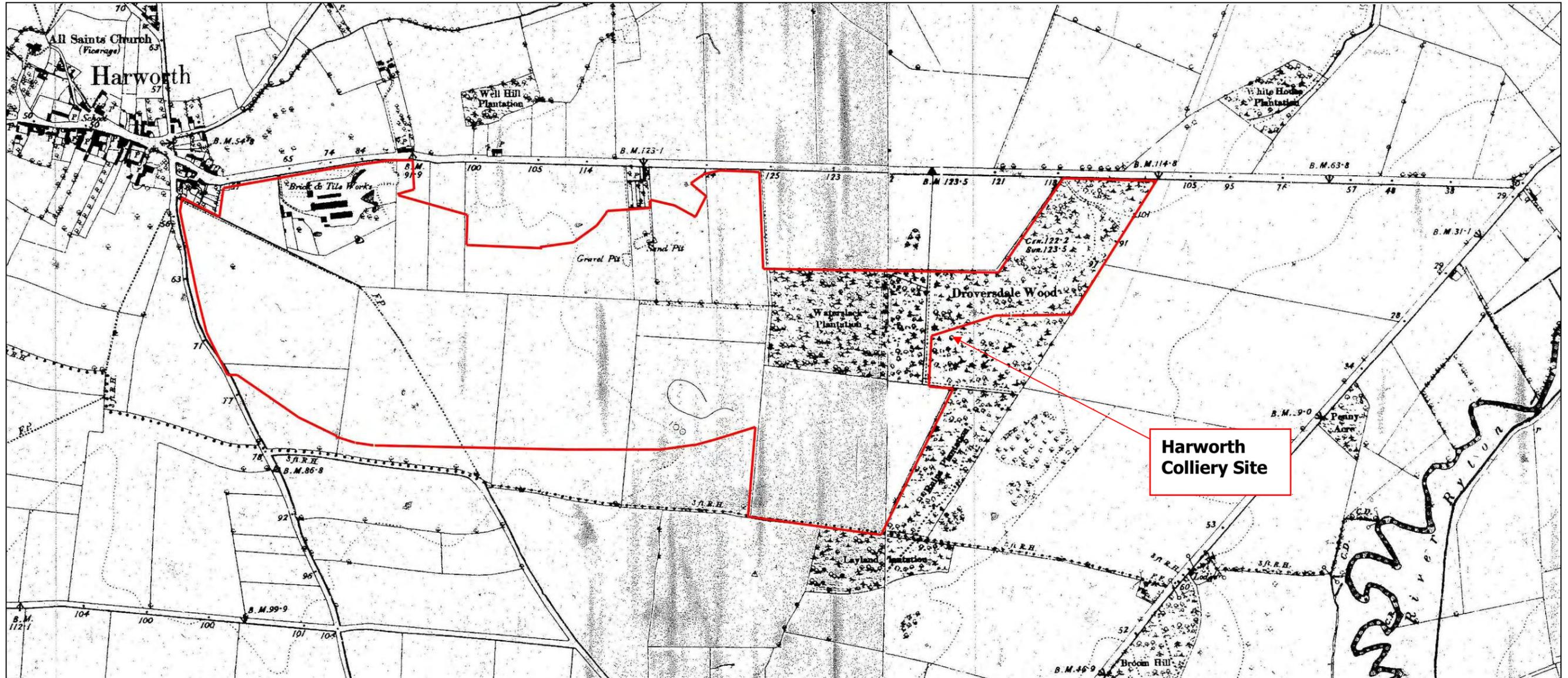
Appendix F – Historic Mapping

1775-1908

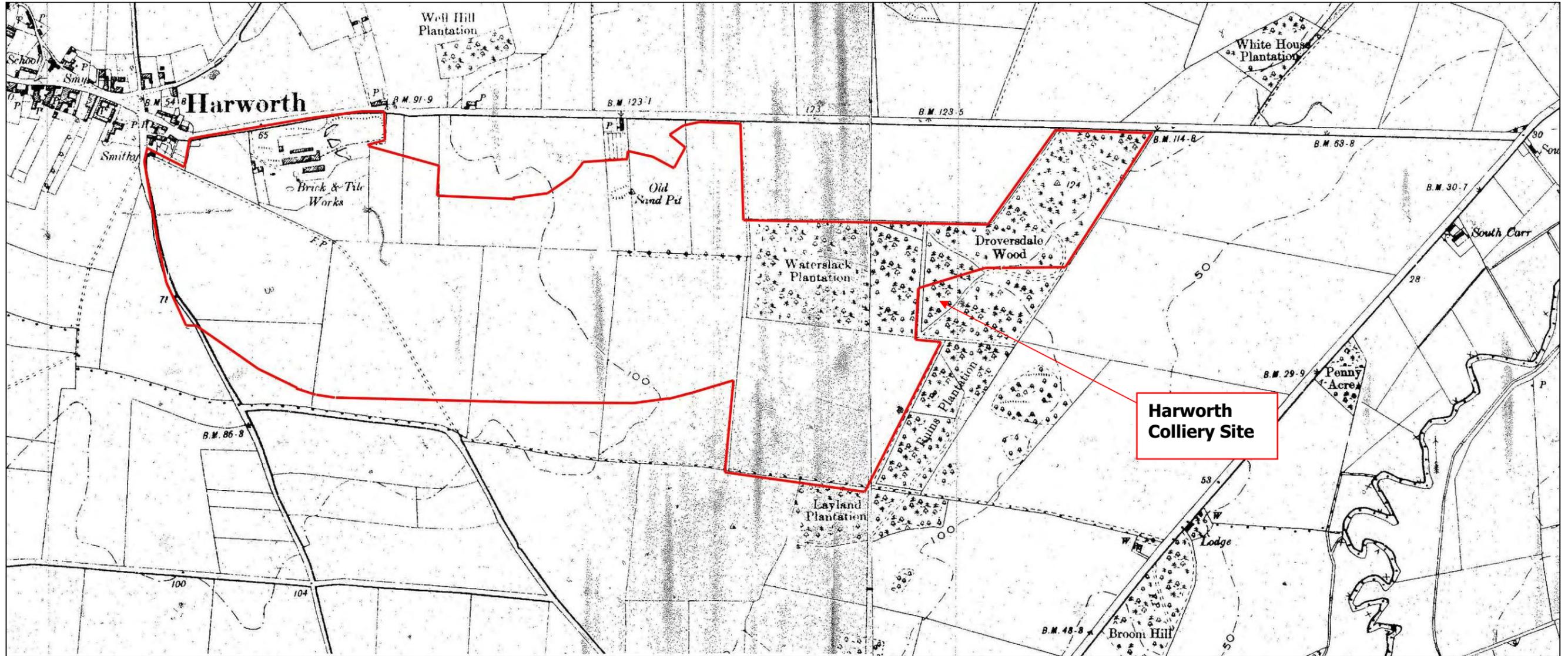
All Mapping Reproduced from the Ordnance Survey Map with the Permission of Her Majesty's Stationary Office,
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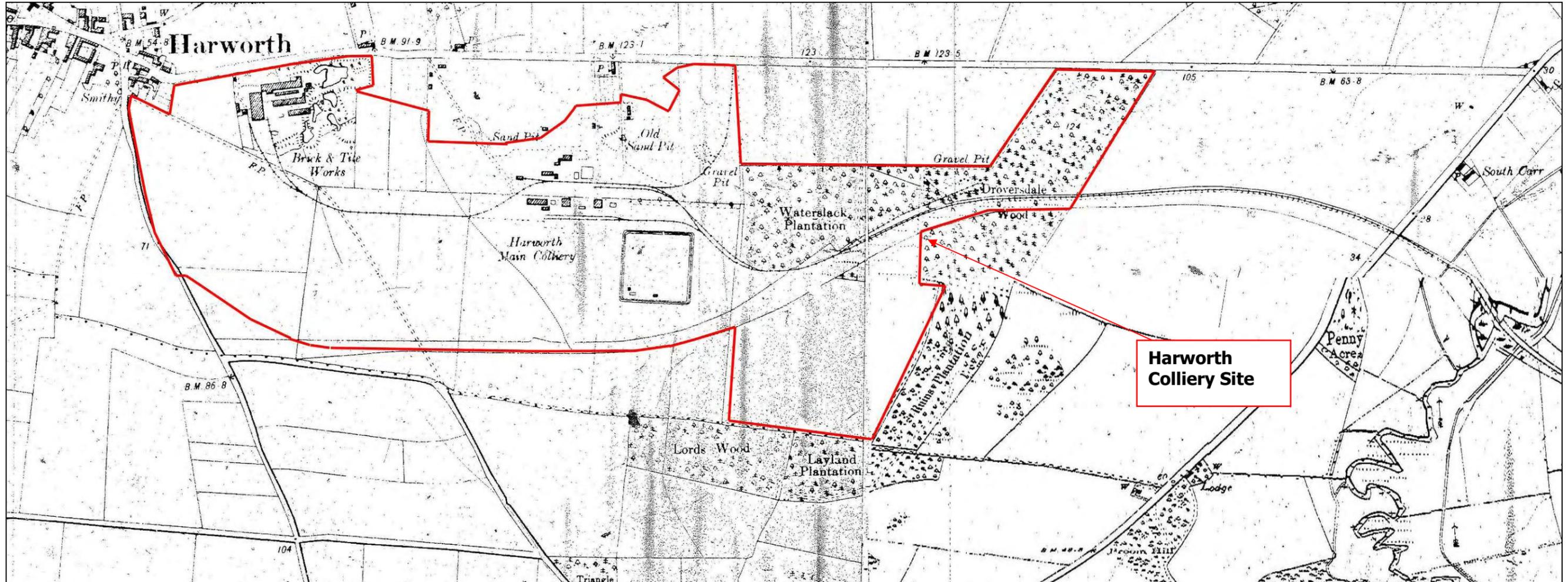
Harworth Enclosure Plan, 1804
(not to scale)



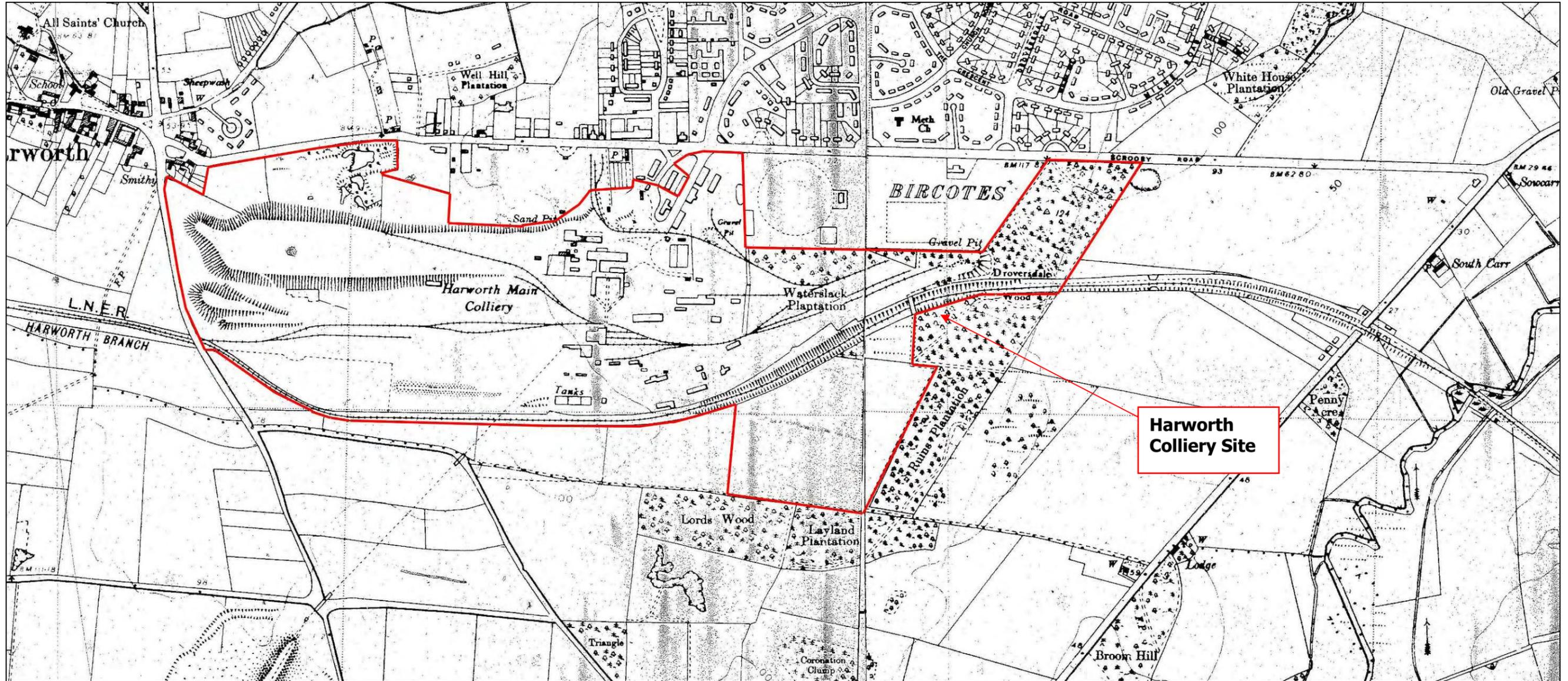
Ordnance Survey Mapping, 1890
(not to scale)



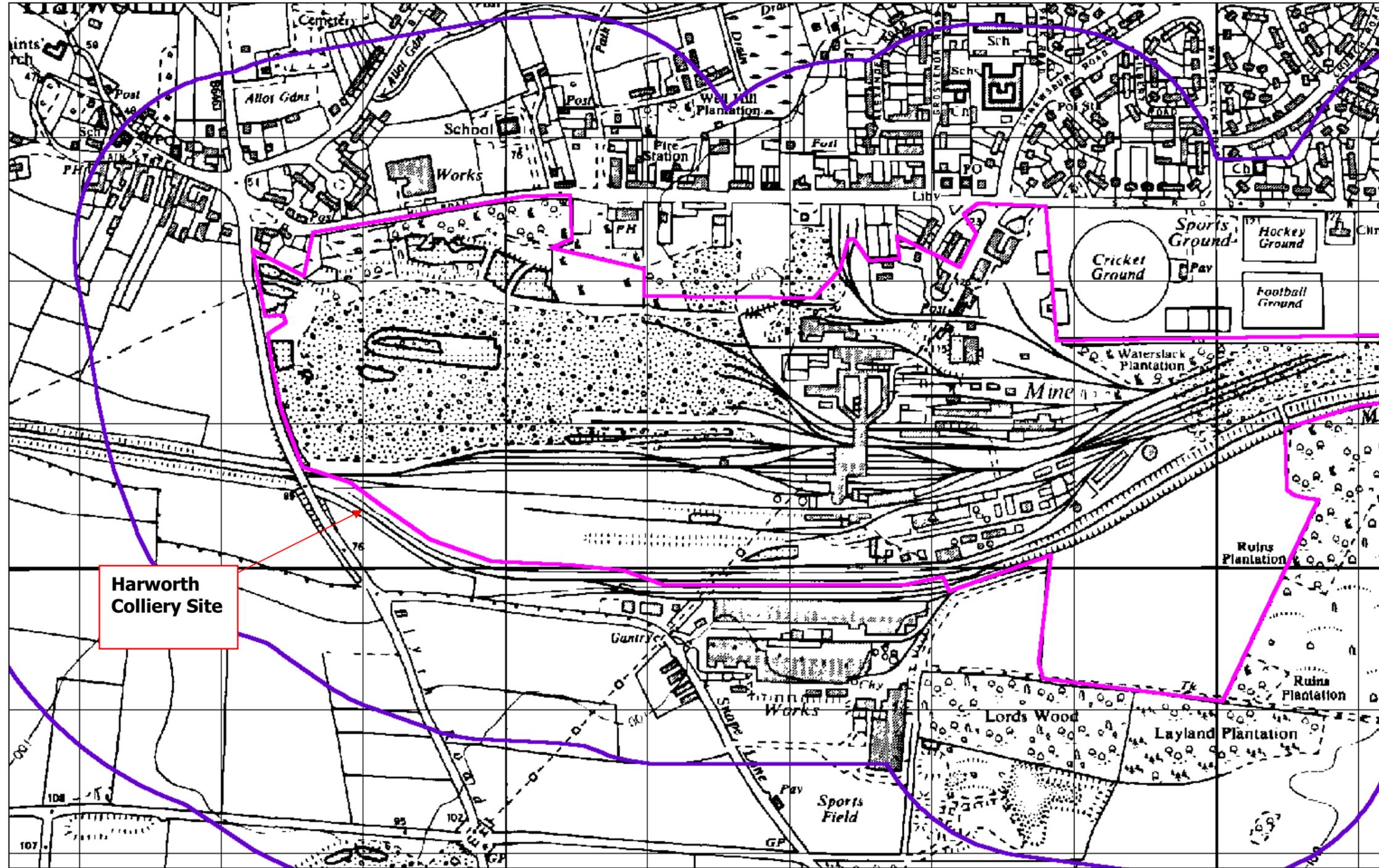
Ordnance Survey Mapping, 1900
(not to scale)



Ordnance Survey, 1922
(not to scale)



Ordnance Survey Mapping, 1948
(not to scale)



Ordnance Survey Mapping, 1967
(not to scale)



Appendix G – Report Conditions



Cultural Heritage Desk-Based Assessment, Mixed use Development at Harworth Colliery (Environmental Assessment)

This report is produced solely for the benefit of Harworth Estates and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYG. In time improved practices, fresh information or amended legislation may necessitate a re-assessment. Opinions and information provided in this report are on the basis of WYG using due skill and care in the preparation of the report.

This report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times.

This report is limited to those aspects reported on, within the scope and limits agreed with the client under our appointment. It is necessarily restricted and no liability is accepted for any other aspect. It is based on the information sources indicated in the report. Some of the opinions are based on unconfirmed data and information and are presented as the best obtained within the scope for this report.

Reliance has been placed on the documents and information supplied to WYG by others but no independent verification of these has been made and no warranty is given on them. No liability is accepted or warranty given in relation to the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report.

Whilst skill and care have been used, no investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather related conditions.

Although care is taken to select monitoring and survey periods that are typical of the environmental conditions being measured, within the overall reporting programme constraints, measured conditions may not be fully representative of the actual conditions. Any predictive or modelling work, undertaken as part of the commission will be subject to limitations including the representativeness of data used by the model and the assumptions inherent within the approach used. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions.

The potential influence of our assessment and report on other aspects of any development or future planning requires evaluation by other involved parties.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors

November 2008
WYG Environment Planning Transport Ltd

WYG Environment part of the **WYG Group**

creative minds safe hands

Harworth Colliery, Cultural Heritage Desk-Based Assessment
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Date October 2009