HARDCASTLE MOOR

NORTH YORKSHIRE

Archaeological Survey Report

Oxford Archaeology North

February 2013

Yorkshire Peat Partnership

Issue No: 2012-13/1348
OA North Job No: L10545
NGR: SE 095 654

Document Title: **HARDCASTLE MOOR, NORTH YORKSHIRE**

Document Type: **Archaeological Survey**

Client Name: Yorkshire Peat Partnership

Issue Number: **2012-13/1348**
OA Job Number: L10545
National Grid Reference: SE 095 654

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SUMMARY

Oxford Archaeology North (OA North) were invited by Yorkshire Peat Partnership to undertake an archaeological landscape survey and an assessment of re-wetting on a portion of the western part of Hardcastle Moor, North Yorkshire (SE 095 654). This restoration project is part of a Higher Level Stewardship agreement that is in place on the land holding, and will entail the blocking, utilising machine-cut peat plugs, of a number of active grips (drains) that were cut into the peat. The archaeological recording work was undertaken to provide an assessment of the archaeological impact of this restoration programme, and was carried out in accordance with a brief by Miles Johnson of Yorkshire Dales National Park Authority (YDNPA), on behalf of the Yorkshire Peat Partnership.

The landscape survey was conducted across 5.84km^2 of Hardcastle Moor during November 2012 in order to identify, locate, and record sites and features of archaeological interest. In total, 152 features of archaeological interest were identified across the study area, although these were mainly confined to the areas of mining to the northern and southern edges of the survey area and shooting stands, mostly located along stream gullies.

The earliest evidence for human occupation at Hardcastle Moor consists of the casual finds of worked flint of potential Mesolithic date (Site ***152***) suggestive of prehistoric activity across the area. The foundations of two small putative shieling sites were identified south of Cranberry Gill. These could date to the medieval period and could even hint at monastic transhumant pastoral exploitation of Hardcastle Moor, whereby the uplands were used for summer grazing.

The vast majority of sites within the study area reflect the two main strands of upland exploitation in the post-medieval/modern periods, namely lead extraction and game shooting. Evidence of mining at the Stoney Grooves mine consisted of two linear alignments of shafts which probably relate to two eighteenth century mining grants to small independent partnerships (Gill 1998, 84), as well as two dams and a long leat draining Cranberry Moss. At North Rake Mine there is evidence relating to mainly mid-nineteenth century extraction, with a large linear hush, an agglomeration of shafts with at least two/three of the main shafts of the mine in the study area, and a water management system containing leats and up to four dams. The most important result of the survey has been the identification and recording of the water management systems associated with parts of the mines, an overlooked facet of the industrial process in the current literature.

Nineteen sites were identified as being at high risk. These consisted of four peat cuttings (Sites ***11***, ***100*** and ***147-148***), four shafts (***29***, ***30***, ***127*** and ***142***), three leats (Sites ***77*** and ***145-146***), two dams (***128*** and ***144***), two trackways (Sites ***22*** and ***66***), two shielings (Sites **68-9**) and two cairns/clearance cairns (Sites ***64*** and ***151***) The most important potential impacts are those to elements of the extensive water management system, and in particular the two leats that had been recorded as modern grips during survey work pre-dating the archaeological investigation. The sites are to be highlighted for avoidance when designing the grip-blocking scheme and any access routes for proposed machine movements.

Two 'safe routes' (of 6m width) were defined to avoid known archaeological sites and allow tracked machines to cross the mining complex between the south end of the study area and the B6265 road.

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ACKNOWLEDGEMENTS

Oxford Archaeology North would like to thank Tessa Levens of the Yorkshire Peat Partnership for commissioning the project, and both Miles Johnson of Yorkshire Dales National Park Authority (YDNPA) and Linda Smith at North Yorkshire County Council, for advice and the provision of Historic Environment Record (HER) data.

The documentary study was undertaken by Helen Quartermaine, and the landscape survey was by Jamie Quartermaine, Peter Schofield and Andrew Frudd; Mairead Rutherford provided advice on the palaeoenvironmental assessment. The report was written by Andrew Frudd and Peter Schofield and the illustrations were prepared by Anna Hodgkinson. The report was edited by Jamie Quartermaine, who also managed the project.

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1. INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

1.1.1 Oxford Archaeology North (OA North) were invited by Yorkshire Peat Partnership to undertake an archaeological landscape survey and an assessment of re-wetting on a portion of the western part of Hardcastle Moor, North Yorkshire (SE 095 654) (Fig 1). This restoration project is part of a Higher Level Stewardship agreement that is in place on the land holding, and will entail the blocking, utilising machine-cut peat plugs, of a number of active grips (drains) that were cut into the peat, probably at some point between the end of the Second World War and the end of the 1970s. The archaeological recording work was undertaken to provide an assessment of the archaeological impact of this restoration programme, and was undertaken in accordance with a brief by Miles Johnson of Yorkshire Dales National Park Authority (YDNPA), on behalf of the Yorkshire Peat Partnership.

1.2 LOCATION, TOPOGRAPHY AND GEOLOGY

1.2.1 The area of Hardcastle Moor (SE 100 655) where the peat restoration has been proposed consists of several areas of blanket peat included within Jack Hole Moss, Jack Hole Flat, North Side Moss, Cranberry Moss, Cross Gill Moor, and Hardcastle Moor. The survey area covers 5.84km^2 lying between 300m and 440m (aOD), with the majority lying between 350m and 400m (aOD). The land is currently managed as a grouse shooting moor on the west flank of Nidderdale in the Yorkshire Dales (Figs 1 and 2; Plate 1). The area consists of large, gently sloping and undulating moorland with elevated plateaux separated and surrounded by stream gullies. This part of the Pennines features limestone bedrock overlain by alternating bands of carboniferous limestone, sandstones, and shales, which are known collectively as the Yoredale Facies (Countryside Commission 1998). The Facies are in turn overlain by Millstone Grit, which forms a capping to the highest hills (*ibid*). Veined ore deposits, principally of lead and barite, occur in fissures and faults within the carboniferous rock and these have been exploited in the surrounding area as part of the Greenhow lead mining field (Gill 1998). The local and wider environment has been extensively shaped by glacial activity and resultant scoured material has been re-deposited in some areas (Countryside Commission 1998). Numerous shake holes and pot holes occur within the study area that link into the large underground cave systems at Stump Cross Caverns. The current character of the study area, like much of the uplands of the northern Dales, comprises heather moorland, which is managed for game shooting.

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*Plate 1: Aerial view of Hardcastle Moor looking north-west with the shooting lodge at centre (Site **31**)*

1.3 HISTORICAL BACKGROUND

1.3.1 Historically, the study area lay on the edge of the settlement of Greenhow Hill and near the farms of Near and Far Hardcastle. The land was within the township of Dacre with Bewerley, in the large parish of Ripon and wapentake of Claro, in the West Riding of the county of York. It is also four miles west of the larger settlement of Pateley Bridge (Hinson 2007). Greenhow Hill was a *'large straggling village, upon an eminence, west of Pateley Bridge, abounding with lead Mines, and in which there are rarely less than five hundred inhabitants of this village employed. The Mines are Sunside, Prosperous, Providence, Cockhill, and Merryfield, which produce annually about 2000 tons.'* (Hamilton 1868).

1.3.2 Hardcastle Moor probably took its name from Hardcastle grange, a medieval monastic farmholding located somewhere nearby which is no longer extant. Presumably, in the medieval period the moorland on Hardcastle Moor came under monastic ownership, or at least common rights upon it were exercised by the grange (LUAU 2000). Bewerley and Hardcastle Moors were enclosed by Enclosure Act in 1850 (Roger *et al* 2004) but the area remains unimproved heather moorland that is managed as shooting moor.

1.3.3 ***Lead mining:*** the main industrial activity on Hardcastle Moor and the environs is lead mining, which in this area dates back to the medieval period. In 1180, a grant to Fountains Abbey mentions lead mines on the east side of Greenhow Hill (Raistrick 1973, 18), and Byland Abbey also had mines in the area; records of arbitration between the abbeys suggest that by the early thirteenth century, mines were operating in the Coldstones area and on the north bank of the Ashfold Side Beck (Raistrick 1973, 18-19). Monastery-owned mines continued to operate in the study area throughout the medieval period. It is not been possible to confirm medieval lead working from archaeological evidence, principally because the extensive post-medieval workings have removed the evidence of the earlier

activity. However, Jackass Level, which is just to the east of the study area has been suggested to have had medieval or early post-medieval origins. Jackass Level, by a tributary of the Ashfold Side Beck, is a 'coffin level', so called from the tapering form of the cut into the hill. It was clearly cut with hand tools, so predates the use of plug-and-feather gunpowder techniques (employed in Nidderdale no earlier than the 1630s (Raistrick 1973), and is certainly earlier than other nearby lead-mining features. Traditionally, it has been attributed to monastic miners, but has most convincingly been dated to the late sixteenth or early seventeenth century by Raistrick (1973, 26). By the end of the seventeenth century almost 3000 tons of lead from Greenhow passed through York between 1692 and 1699 and Roe suggests that it is likely that most of this was mined from the outcropping veins of Coldstones and Greenhow Hills (Roe 2003, 9).

1.3.4 Nearby at Cockhill, Raistrick mentions oak shovels found in '*very old mine workings*' which may well be of early post-medieval date (*op cit*, 24). Similar artefacts found in coal workings at Coleorton, Leicestershire (AJ Bell pers comm) have served to push back the known dates for coal mining by over a century, and it may be that technologically important information is preserved in the earliest underground workings at Cockhill. Roe asserts that it is possible that by this date the miners had begun to follow the veins where they disappear under drifts and had probably therefore discovered the important Cockhill/Waterhole Vein system. This was confirmed by accounts from Sir Thomas Whites mines in 1707 that mention mining at part of the Cockhill Vein/ Greenhow Rake (Roe 2003, 9)

1.3.5 The extant mining remains of the ore field surrounding Greenhow village, immediately to the east of the present survey area, have been subject to modern archaeological investigation (Roe 2003). The main features are associated with levels driven to work lead veins under the village including Jackass Level, Gillfield Level and Cockhill Level (*op cit* 57). From the mid-eighteenth century deeper shafts were sunk equipped with horse-powered winding engines. The Cockhill and Gillfield Levels were driven in the 1780s as horse levels to the north of the village initially to the Cockhill and Water Hole Veins and were continued, and eventually drained most of the veins under the village. The horse levels were equipped with rails to enable ore, mainly from stoped workings, to be taken directly to mechanised dressing floors adjacent to the smelt mills (*op cit,* 10).

1.3.6 Mining activity within the study area began in earnest from the eighteenth century. By their nature, later mining remains tended to destroy earlier remains or to obscure them with spoil, but typology of the remains allows some relative dating. Isolated, hand-worked shaft mounds, are probably earlier than the large, regular shaft mounds which used steam engines to power drainage or winding gear for dozens of shafts. Some of these are double shafts, where a large shaft has at its side a smaller opening, one to extract ore and one to pump water using an early steam engine.

1.3.7 The eastern part of the study area included parts of the Craven Moor Mines which worked fourteen veins; to the north and south of the Grassington to Pateley Bridge road; from Stump Cross to Keld Houses (Gill 2004). The veins, all in well-bedded limestones, outcrop to the west but are overlain by shales at their eastern ends. The main, modern development was carried out by the Craven Moor Mining Company which was formed in 1854 to work the Blackhill; Hardgate End; North Rakes and Craven Cross Veins. A vigorous start was made; with work being carried out on

all major veins (*ibid*). With production falling the company closed its mines in 1871. A plethora of smaller companies sprang up to work sections of the Craven Moor Mining Company's lease. The West Craven Moor Lead Mining Company Ltd. was formed in 1873 and the East Craven Moor Lead Mining Company Ltd in 1879. In 1884; the two companies amalgamated to form the Craven Moor United Lead Mining Company, but in the first year only 100 tons of ore were raised. Production rapidly fell off; and between 1865-1887; only 158 tons of ore was mined. The company closed down in 1885; but Foxholes Mine continued to be worked as a private venture until 1895. In between 1914 and 1919 the Foxholes and Jamie Mines were reopened by the Greenhaugh Mining Co, but no real development was undertaken owing to a shortage of working capital. In 1927, the Pateley Mines Ltd was formed to work the Hardgate End Vein and though good ore was found, development did not keep in front of production and the mine closed in 1929.

1.3.8 ***Lead Smelting:*** smelting sites are less common and less visually impressive, but display similar trends toward expansion and mechanisation. Two of these at Stoney Grooves and Merryfield, were on the eastern edge of the study area. Merryfield was shown as a ruin on the first OS Sheet of 1849, and was operational in the early nineteenth century. The remains comprise dressing floors, spoil heaps and a long flue. They were serviced by the extensive mine complexes of North Rakes and Golden Fleece mines evident to the north and south of the survey area respectively (Gill 1998).

1.3.9 The industry as a whole fell prey to the depression in lead prices of the 1830s, and revival was only partially successful. Most of the mines were closed at the end of the nineteenth century. The importance of the lead industry in the local economy and landscape is shown by their location at the hub of well-worn path networks (*Section 4.6.13*).

1.3.10 Parts of the extensive Greenhow lead mines, to the east of the survey area, were previously recorded during the Nidderdale AONB Archaeological Survey, which was conducted by OA North under its earlier guise of the Lancaster University Archaeological Unit (LUAU 2000); and, as previously stated, the mining remains surrounding Greenhow village have been subject to modern archaeological investigation (Roe 2003).

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2. METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design submitted by OA North (*Appendix 2*) was used as the basis for this investigation, and was based on a project brief from North Yorkshire County Council and Yorkshire Dales National Park (*Appendix 1*). This required that a landscape survey be undertaken to enhanced Level 1 standards (LUAU 2000). The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), and generally accepted best practice.

2.2 DOCUMENTARY RESEARCH

2.2.1 The North Yorkshire Historic Environment Record (HER) and the YDNPA HBSMR for Hardcastle moor were accessed and were kindly provided as Shape Files. Digital copies of historic Ordnance Survey mapping were purchased online and GIS was compiled with historic mapping, modern OS topography and the HERs for the whole study area. The GIS mapping provided the basis for the subsequent field survey, and was subject to on-site enhancement.

2.2.2 Vertical Air photography was obtained from the Yorkshire Dales National Park Authority and a specially commissioned aerial photographic sortie was undertaken to provide a set of oblique digital images of the whole study area. The vertical air photographs were geo-referenced into the GIS to provide a match with topographic and historic OS mapping.

2.3 LANDSCAPE SURVEY

2.3.1 The survey was undertaken as an enhanced Level 1-type survey, following the guidelines for Level 1 surveys as defined by English Heritage (2007). The survey study area encompassed an area of 5.84km^2 and comprised five elements:

- reconnaissance;
- mapping;
- description;
- photography;
- environmental assessment.

2.3.2 ***Reconnaissance:*** the reconnaissance consisted of close field walking, with line intervals varying between 10m and 20m wide, dependent on visibility and safety considerations. The survey identified, located and recorded sites and features of archaeological interest on the ground. The survey took considerable care to examine areas of disturbance through the peat, erosion scars from vehicle damage, and all other peat exposures. In particular the survey examined 20% of the extant grips across the study area and all identified peat hag scars across the study area. These were specifically examined for evidence of finds or structural entities within the section and the interface between the peat and the mineral soil. The sections of the grips were partly obscured by slumped peat and humic material and were

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commonly obscured by vegetation and were not conducive to revealing artefactual material. Despite extensive searching no artefacts were revealed within the grips.

2.3.3 ***Survey mapping:*** a Satellite Global Positioning System (GPS) was utilised to conform to enhanced Level 1 survey requirements, which entailed the recording of the outline of features greater than 3m diameter. The GPS is a Leica differential system and achieves much greater accuracy than can be achieved with a hand-held GPS. The accuracy of the OA North GPS system is capable of +- 0.02m and provides a quick and effective means of recording the position and extent of sites. The GPS techniques were used to record all sites of archaeological interest, which were recorded as point data, with any features exceeding 3m in diameter being recorded with line or polygon data. The locations of areas of environmental sampling were also recorded.

2.3.4 ***Site Description and Assessment:*** detailed notes were made on each site, which were then input into an Access database.. The input into the system was guided by a *pro forma* to ensure uniformity and consistency of input, and included the following core fields:

- Location;
- Site Type;
- Description;
- Dimensions.

2.3.5 Where possible, the descriptions incorporate provisional interpretations of the function, purpose, and chronology of each site.

2.3.6 ***Photographic Survey:*** a digital photographic archive was generated in the course of the field work, comprising landscape and detailed photography. This recorded all features and sites of archaeological interest. Detailed photographs were taken of all sites using a scale bar. All photography was recorded on photographic *pro forma* sheets which detail the subject, orientation, and date. Digital imagery was used for the photographic recording and 10 megapixel resolution was used as a minimum. A full image catalogue was produced as part of the archive.

2.3.7 ***Ecological and Artefact Retrieval:*** the retrieval of any ecofacts was confined to small targeted samples that were either suitably diagnostic for species identification, or were substantial and well-preserved enough to be suitable for obtaining radiocarbon dating. Large areas of tree remains exposed in hag sections would be recorded and individual exposed artefact finds of significance were to be collected, catalogued, and stored. An assessment of the character of the peats and environment was based on the site investigation by an experienced palynologist.

2.4 ARCHIVE

2.4.1 The results of all archaeological work carried out will form the basis for a full archive to professional standards, in accordance with current English Heritage guidelines (*Management of Research Projects in the Historic Environment*, 2006). The original record archive of the project will be deposited with the Yorkshire Dales National Park Authority.

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2.4.2 The Arts and Humanities Data Service (AHDS) online database *Online Access to index of Archaeological Investigations* (OASIS) will be completed as part of the archiving phase of the project

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3. SURVEY RESULTS

3.1 INTRODUCTION

3.1.1 The landscape survey was conducted across 5.84km^2 of Hardcastle Moor during November 2012 in order to identify, locate, and record sites and features of archaeological interest (Figs 2-4). In total, 152 features of archaeological interest were identified across the study area, although these were mainly confined to the areas of mining to the northern and southern edges of the survey area and shooting stands mostly located along stream gullies.

3.2 RESULTS

3.2.1 The sites identified within the study area during the survey can be divided into five broad categories: potential prehistoric evidence; extraction industries; shooting; peat cutting; and miscellaneous land use. These categories are made up of a total of 21 different types of individual site (Table 1). Most of the sites are difficult to date closely in the absence of additional data from documentary sources or archaeological excavation; however, most are likely to date to the post-medieval (1540-1750), industrial (1750-1914) or modern periods. Some might date to the medieval period or prehistoric periods but the majority of sites were situated above the blanket peat so are unlikely to be prehistoric in origin. The category 'area of mine workings' was used where there was a concentration of overlapping or interconnected features such that it was impractical to attempt to record the individual elements.

TYPE OF SITE	NUMBER	GAZETTEER NUMBERS
Prehistoric Evidence	**2**	
Flint Scatter	1	Site ***152***
Shelter	1	Site ***74***
Undated Land Use	**15**	
Boundary Bank	1	Site ***65***
Boundary Stone	3	Sites ***97-99***
Cairn	3	Sites ***32***, ***64*** and ***150***
Clearance Cairn	3	Sites ***70***, ***131*** and ***151***
Platform	1	Site ***34***
Shieling (and Bank)	2	Sites ***68-69***
Trackway	2	Sites ***22*** & ***66***
Peat Cutting	**10**	
Peat Cuttings	10	Sites ***1***, ***11***, ***73***, ***76***, ***100***, ***130***, ***132***, ***134*** and ***147-148***
Extraction Industries	**56**	
Area of Mine workings	2	Site ***86***, Site ***118***

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Dam	6	Sites ***67***, ***90***, ***128-129*** and ***143-144***
Hush	1	Site ***119***
Leat(s)	3	Sites *77* and ***145-146***
Shaft Mound(s)	38	Sites ***29-30***, ***78-81***, ***85***, ***87-89***, ***91-96***, ***101-103***, ***105-117***, ***120-123***, ***127*** and ***142***
Spoil Heap	5	Sites ***82-83*** and ***124-126***
Trial Trench	1	Site ***84***
Shooting	**69**	
Hunting Lodge	1	Site ***31***
Hut	4	Sites ***23***, ***33***, ***38*** and ***149***
Pheasantry	1	Site ***39***
Shooting Stand	63	Sites ***2-10***, ***12-21***, ***24-28***, ***35-37***, ***40-63***, ***71-72***, ***75***, ***104***, ***133*** and ***135-141***

Table 1: Sites of archaeological interest by category

3.2.2 ***Prehistoric Evidence:*** the earliest known human activity within the survey area is of a Mesolithic flint scatter that had been retrieved from the foot of a large glacial erratic boulder in the south-west of the area (Site ***152***). Despite extensive investigation of 20% of the grips and exposed peat hag sections, no further flints were retrieved during the present survey. In addition, a potential natural stone shelter was speculatively identified located overlooking the north bank of Fat Ewe Grain Beck (Site ***74***). The site is natural in form but was probably anthropogenically exploited. No lithic artefacts were retrieved from the site.

3.2.3 ***General Agricultural Land Uses:*** a scattered number of fall under general land-use and consist of boundary markers, undated cairns/clearance cairns, trackways and two potential shieling sites. Six cairns and/or clearance cairns (Sites ***32***, ***64***, ***70***, ***131*** and ***150-151***) were identified in the study area and are loosely located in the centre of Hardcastle Moor. It is possible that one or more of the cairns may have had prehistoric origins but the dense vegetation cover did not aid identification of early cairn fabric (Plate 2). It is likely that some may have been used recently to demarcate boundaries across the shooting moor.

3.2.4 The moorland within and surrounding the study area was divided by Enclosure Act (enclosure map dated 1850), and each of the separate landholdings were identified by a series of boundary stones inscribed with the landholder/estate's initials (Sites ***97-99***). The examples in the study area follow the parish boundary and consist of two manufactured stones (Plate 3) and one large glacial boulder at Grey Crag. It is unlikely that these boundary stones recorded the separate mining liberties in the area. A long linear embanked trackway was identified running slightly convergent with the east side of the parish boundary on Caygill Moss (Site ***22***). It is possible that this is either a relatively modern, albeit overgrown, shooting track or it could be the original alignment of the Enclosure Act boundary. A short isolated section of boundary bank with associated clearance cairn was located on the north side of the study area on the slope running down into Cranberry Gill (Site ***65***).

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*Plate 2: Cairn of unknown date located on Hardcastle Moor (Site **32**)*

*Plate 3: Inscribed boundary marker stone located on the western edge of Hardcastle Moor (Site **99**)*

3.2.5 The ephemeral remains of two potential shieling sites were identified in close proximity to each other on the moorland to the south of Cranberry Gill (Sites ***68*** and ***69****;* Plate 4). The structures consist of low earthen foundations of two small rectilinear structures and were only identified because they were in an area of close cropped heather. The structures may have been serviced by the trackway running up onto the moor (Site ***66***), although the surviving section lay on the

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opposite side of Cranberry Gill. The evidence for transhumant farming practices dating to the medieval and early post-medieval periods, consisting of prolonged transitory pastoral occupation in the uplands on summer grazing grounds at some distance from the parent farm, is relatively widespread within the upland regions of Northern England (Winchester 2000). The first site (Site ***68***) was a turf-banked two-celled rectangular structure measuring 5.5m x 2.5m with an irregular open stock pound to the east, and the second site (Site ***69***) was a sunken area with turf banks on two sides measuring 2.5m square.

*Plate 4: Foundations of a potential shieling structure located on the edge of Cranberry Gill (Site **68**)*

3.2.6 ***Peat Cutting:*** the study area remains an open tract of rolling heather moorland with, in places, relatively deep peat deposits. Peat extraction for both industrial and domestic purposes has occurred for a considerable period and extensive individual peat grounds are clearly depicted on the OS First Edition Mapping. Ten peat cuttings were recorded during the survey with the largest cuttings consisting of those at London (Site ***148***), North Side Moss (Site ***147***), Franky Hole Gill Head (Site ***11***), and Cranberry Moss (Site ***76***). There was no direct evidence for ancillary features associated with the cuttings, such as peat tracks leading down to the farms or any peat drying stands. One trackway (Site ***66***) ran west up onto Cranberry Moss and below the peat cutting there, but the surviving section did not reach the cutting. It is also interesting that the land to the east Cranberry Moss is called Peat House Hill. It is possible that the two potential shieling structures (*Section 3.2.5)* located to the south of the peat cutting may have been associated with peat drying.

3.2.7 ***Extraction Industries:*** two main areas of mineral extraction, predominantly lead mining, were identified within the study area; to the north along the south side of Ashfold Side Beck and along the southern boundary of the area where the land starts to drop to the B6265. Both of these mines extended beyond the study area but concentrations of features survive within the study area for both Stoney Grooves/Merryfield Mine in the north and North Rake Mine in the south (Figs 3-6)

3.2.8 *Shaft Mounds and spoil heaps:* in total, 38 sites were recorded as shaft mounds, along with five spoil heaps and two more extensive and complex areas of extraction that also contained some shafts (Sites ***86*** and ***118***). Most of the shaft mounds consisted of an annular or penannular ring of grassed upcast material with a central hollow. It is these central depressions that represent the former shafts and, although they would have been of varying depths when in use, they are now rarely more than 2m or 3m deep. However, the apparently solid infill is likely to contain numerous voids and there exists the potential for further collapse and subsidence. Several of the shaft mounds, such as Site ***78*** (Plate 5), consisted of rubble rather than spoil and so these had not yet grassed over (Plate 6).

*Plate 5: Shaft Mound (Site **78**) looking east*

*Plate 6: Grassed-over Shaft Mound (Site **79**) looking east*

3.2.9 There is evidence in the north of the survey area of linear alignments of extant shafts that are adjacent or extend across two tributary streams draining into Ashfold Side Beck (Gill 1998; Fig 21). These presumably follow veins on the

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north-western end of the Stoney Grooves Mine, upslope onto Hardcastle Moor in a north-west (Sites ***78-85***, ***87-89*** and ***91***) and south-west orientation (Sites ***92-96***) (Figs 3 and 6). On the eastern edge of the north-west alignment there is a more extensive and complex area of working, spoil heaps and possible that have been amalgamated into one discrete site (Site ***86***). Two spoil heaps (Sites ***21*** and ***22***) are horseshoe-shaped 'finger-dumps' of crushed rock.

3.2.10 In the south there is an agglomeration of features fringing the edge of the study area that conform to the western edge of the North Rakes Mine (Figs 4 and 5). Here there are numerous shaft mounds and spoil heaps (Sites ***105-117*** and ***120-127***) that coalesce around a large open hush (Site ***109***) that was once serviced by a tramway and dressing shed (with no surviving surface evidence; Gill 1998, Fig 20). In addition, there is disparate evidence of several outlying groups of shafts associated with this mine (Sites ***29-30***, ***101-105*** and ***142***). In the centre of the recorded mine features there is a more extensive and complex area of working, consisting of numerous shafts and spoil heaps located on the south-west side of a large hush . This was associated with two main shafts into the mine called Simpson's/West Shaft and Williams' Shaft (Site ***118***; Gill 1998, Fig 20). Three roughly linear spoil heaps (Sites ***124-126***) are located at the head of what was once a tramway to the mine and adjacent to a riving shed so were probably associated with the primary working and crushing of the ore.

3.2.11 *Hushes:* hushing is the process of using a controlled flood of water to either remove overburden and expose mineral deposits, or to excavate the deposits themselves. There is one definite hush/open working located within North Rake Mine (Site ***119****;* Plate 7; Fig 4) consisting of a wide deep channel running east/west and then turning to the north at the western end. It would have emptied into a sinkhole depression at the western end.

*Plate 7: Linear hushing at North Rakes mine (Site **119**) with dam/sink hollow (Site **143**) beyond, looking north-west*

3.2.12 *Water Management:* there is evidence for planned water management and redistribution within the catchment on Hardcastle Moor that predates the twentieth century grips, and it is clear that this was associated with both hushing and water

power at the mines on the north and south edges of the study area. There is a network of four potential dams and two adjoining leat systems on North Side Allotment that would have originally drained water down towards North Rake Mine (Sites ***128***-***129*** and ***143***-***146***) (Fig 4). Only one of the dams had an obvious retaining bank on the side (Site ***128***), and the rest of the complex was difficult to observe because of the vegetation cover; in part, the leat system has been re-used in the modern grips.

3.2.13 There are two separate dams located in the north of the area adjacent to Stoney Grooves/Merryfield Mine (Fig 3). The first dam is protected within the curtilage of the scheduled monument for Stoney Grooves Mine (*Site **67***; Plate 8). It still holds water behind an earthen and turf-topped dam with an externally revetted drystone wall up to *c*.7m high above the outfall (Plate 9). The dam is fed both directly by Cranberry Gill and also from the west via a long west/east-orientated leat (*Site 77*) that would have originally drained Cranberry Moss (Plate 10). It would have originally provided water power at Low Stoney Grooves Mine (Gill 1998, Fig 21).

*Plate 8: Dam feeding Stoney Grooves/Merryfield Smelt Mills / Mines (Site **67**), looking east-north-east*

*Plate 9: Drystone revetment above the outfall on the dam wall (Site **67**), looking north-west*

*Plate 10: Leat system (Site 77) draining Cranberry Moss into a dam at Stoney Grooves mine (Site **67**), looking east-south-east*

3.2.14 The second dam lies further north (Site ***90***; Plate 11), and has been breached. It used a similar construction method to the other dam, although on a much smaller scale. This body of water appears to have been used to hush out the gully to the north-east (beyond the survey area) and would also have originally provided water power for High Stoney Grooves Mine (Gill 1998; Fig 21).

*Plate 11: Remains of a small drystone revetted turf dam at Stoney Grooves mine (Site **90**), looking west*

3.2.15 ***Features Associated with Shooting:*** perhaps unsurprisingly the most numerous site type identified during the present survey consisted of linear alignments and groupings of shooting stands (Plate 12), with 63 examples being recorded throughout the study area. Considering its current use for game shooting Hardcastle Moor has apparently been used as a shooting moor at least throughout the twentieth century, and a single-storey shooting lodge remains in use that is located in a sheltered gully on Round Hill Gill (Site ***31***; Plate 13*)*. Only those shooting stands constructed of permanent materials were recorded and they consist of four construction types. Potentially, the earliest stands consist of simple earth and turf stacked mounds, then there are rectangular drystone-constructed stands which are the most numerous type (Plate 14), and, finally, a small group of concrete slab-constructed stands which, other than wooden examples, are the most modern (Plate 15). The stands are distributed all over Hardcastle Moor, with the largest grouping forming a narrow Z-shaped alignment on either side of Cross Gill Dike (Sites ***40-63***). There are two further linear groupings of stands distributed along the parish boundary on Fat Ewe Grain Moor (Sites **5-10** and **12-21**) and on Fat Ewe Grain Moor (Sites ***2-4*** and ***135-141***), as well as a cluster of structures on Jack Hole Allotment (Sites ***24-28***).

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*Plate 12: Line of shooting stands looking west (Sites **55-63**)*

*Plate 13: Shooting Lodge on Hardcastle Moor (Site **31**)*

*Plate 14: Example of a drystone-constructed shooting stand (Site **47**)*

*Plate 15: Example of a concrete slab-constructed shooting stand (Site **8**)*

3.2.16 There are four potential small hut/shelter sites associated with shooting on the moor. There is an extant example on the eastern edge of the study area which is adjacent to a pheasant covert (Sites ***38*** and ***39***; Plate 16). Both features are relatively recent as they post-date the OS First Edition mapping. The First Edition mapping depicted three other huts in the area, one on Jack Hole Allotment called 'Pimley Hut' (Site

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23), which was associated with shooting stands, and two on the eastern end of Hardcastle Moor called 'Little Betty and 'Little John' (Sites ***33*** and ***149***). No evidence of the latter site could be identified during the present survey.

*Plate 16: Ruinous hut and pheasant covert (Sites **38** and **39**), looking west*

4. PEAT ASSESSMENT

4.1 PEAT ASSESSMENT

4.1.1 The gently sloping/rolling moorland in the study area contains areas of relatively deep blanket peat, and this is particularly evident in the north around Cross Gill Moor and Cranberry Moss, and in the south-west on Jack Hole Allotment and North Side Moss. Here peat depths within grips can reach over 1m in depth (Plate 17). The former area has some deep eroded drainage gulleys cutting into tributary streams draining east into Ashfold Side Beck. The latter area has been subject to extensive modern grip cutting and also has very deeply cut drainage gulleys draining west and south out of the study area. The gulleys are particularly wide here with collapsed hags slumped into them that can reach over 2.5m in depth in places.

4.1.2 Blanket peat depth is appreciably thinner on the east side of Hardcastle Moor where the ground is rockier on Ravenstone and Bewerley Moors. On Bewerley Moor the peat is patchy with exposed bedrock and is only 0.25m deep in places where it survives. Blanket peat is also thin on the southern fringe of the study area adjacent to the walled enclosures flanking Knot Head and North Side Allotment. There are some extensive areas of bare peat, in particular around London in the centre/south of the area, where shallow sloping peat islands remain in an area of what was once a large peat cutting bed.

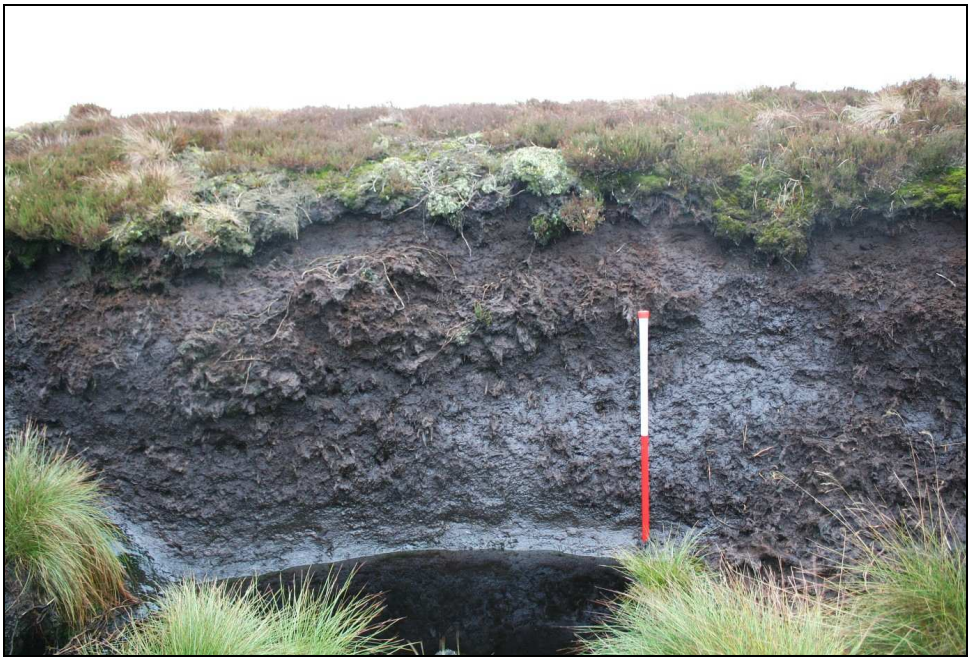

Plate 17: Typical example of an exposed peat section

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Plate 18: Example of wide eroded peat hags along a stream gully

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5. DISCUSSION

5.1 DISCUSSION

5.1.1 The earliest evidence for human occupation at Hardcastle Moor consists of the casual finds of worked flint of potential Mesolithic date (Site ***152***) suggestive of prehistoric activity across the area. No further lithics were retrieved during the present survey. There were considerable depths of peat across the survey area, all of which are very likely to have begun forming during the prehistoric periods. Typically, the prehistoric material would be recovered at the interface between the peats and underlying mineral soils, and the recovery of further evidence of early activity is reliant upon the examination of these horizons. While there were numerous exposures of peat at Hardcastle Moor, few provided the opportunity to examine these critical horizons, either because the exposures were not deep enough (particularly in the grips) or erosion was extensive and peat slumping had obscured the lower deposits. Some parts of the east and southern fringes of the study area had thinner coverings of peat, but unfortunately dense heather cover often masked areas of potential artefact exposure. A single natural stone shelter was identified as a possible prehistoric site that overlooked the north bank of Fat Ewe Grain Beck, but the feature was entirely natural and while it may have had anthropogenic use this can not be confirmed. There were several cairns identified across the study area, and although not definitively dated, some may have had early fabric in their foundations.

5.1.2 The foundations of two small putative shieling sites were identified south of Cranberry Gill. These could date to the medieval period and could even hint at monastic transhumant pastoral exploitation of Hardcastle Moor whereby the uplands were used for summer grazing. The two sites were only observed because the prevailing ground conditions were favourable, as they lay within an area of heather cutting.

5.1.3 ***Industrial Extraction:*** the vast majority of sites within the study area reflect the two main strands of upland exploitation in the post-medieval/modern periods, namely lead extraction and game shooting. Evidence of mining at the Stoney Grooves mine consisted of two linear alignments of shafts which probably relate to two eighteenth century mining grants to small independent partnerships (Fig 3) (Gill 1998, 84), as well as two dams and a long leat draining Cranberry Moss. At North Rake Mine there is evidence relating to mainly mid-nineteenth century extraction, with a large linear hush, an agglomeration of shafts with at least two/three of the main shafts of the mine in the study area, and a water management system containing leats and up to four dams (Fig 4). The most important result of the survey has been the identification and recording of the water management systems associated with parts of the mines, an overlooked facet of the industrial process in the current literature.

5.1.4 The current land use, dating back probably into the nineteenth century, is of the study area as an upland game shooting moor. This land use, is reflected in many of the man-made structures that are visible currently at Hardcastle Moor, with a lodge, pheasantry, several types of hide/huts, and lines of shooting stands scattered across the area. The longevity of use of the dry-stone features is uncertain, and

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many may have been rebuilt, indeed there are more modern concrete and wooden examples crossing the moorland. The moor was enclosed and sub-divided by Enclosure Act with a map dated 1850 for Bewerley and Hardcastle Moors (Roger *et al* 2004) and three inscribed boundary stones presumably record the initials of the owners or farms that retained these land holdings.

5.2 CONCLUSION

5.2.1 ***Site Vulnerability:*** in order to minimise risk to the archaeological resource all archaeological sites identified during the present survey have been graded with respect to individual site vulnerability using a traffic light system (red, amber and green). These were defined with association to the sites' perceived fragility to potential impacts and the proximity of the site to any proposed groundworks, and each site is colour-coded on the gazetteer drawings in order to facilitate an avoidance strategy for each monument (Figs 3 and 4).

5.2.2 *Red Impacts:* nineteen sites were identified as being at high risk. These consisted of four peat cuttings (Sites ***11***, ***100*** and ***147-148***), four shafts (***29***, ***30***, ***127*** and ***142***), three leats (Sites ***77*** and ***145-146***), two dams (***128*** and ***144***), two trackways (Sites ***22*** and ***66***), two shielings (Sites **68-9**) and two cairns/clearance cairns (Sites ***64*** and ***151***). All identified sites of extensive area or length were defined as being of high risk if they were crossed in part by either grips and/or areas of bare peat. The most important potential impacts are those affecting elements of the extensive water management system, and in particular the two leats that had been recorded as modern grips during survey work pre-dating the archaeological investigation. The sites are to be highlighted for avoidance when designing the grip-blocking scheme and any access routes for proposed machine movements.

5.2.3 *Amber Impacts:* a group of 44 sites were defined as being at medium risk (Sites ***2-3***, ***5-7***, ***9-10***, ***14-16***, ***21***, ***45***, ***47-51***, ***62-63***, ***65***, ***67***, ***70***, ***76***, ***78-83***, ***90***, ***104-105***, ***113***, ***121***, ***125***, ***129-132***, ***134***, ***136-137***, ***141*** and ***143***). These sites are widely dispersed throughout the study area and cover examples of the majority of the different types of field monument recorded on Hardcastle Moor. All sites defined as being located immediately adjacent to, or within 10m-20m of, a recorded grip and/or bare peat area were recorded as being of medium risk.

5.2.4 *Green Impacts:* although numerous site-types associated with a diverse range of land uses were identified within the study area, few of the sites identified during the survey are likely to be susceptible to damage as a result of work to block the drainage grips. Of the identified sites 89 were remote from the areas of grips, and would therefore be unaffected by gripping operations and are defined as being of low risk (Sites ***1***, ***4***, ***8***, ***12-13***, ***17-20***, ***23-28, 31-44, 46***, ***52-61***, ***71-75***, ***84-89***, ***91-99***, ***101-103***, ***106-112***, ***114-120***, ***122-124***, ***126***, ***133***, ***135***, ***138-140***, ***149-150*** and ***152***). However, this is dependant upon standing structures being avoided by vehicles and machines, and that these areas are not used to generate material for the infilling of grips.

5.2.5 ***Proposed Access routes:*** it was envisaged that up to five or six 'safe routes' were required (of 6m width) to avoid known archaeological sites and allow tracked machines to cross the mining complex between the south end of the study area and the B6265 road. This was in order to avoid clipping or denuding any of the densely packed archaeological earthworks in any way. In practicality, because of

extenuating circumstances, and without further detailed fieldwork, only two potential access routes could be defined running into the study area (Fig 4). The vast majority of the mining complex lay outwith the study area, and as such has not been subject to detailed walkover survey so defined access, in particular along the trackway located adjacent to Green Knoll limekiln and running through the centre of the complex. could not be ascertained. Similarly all the enclosed fields to the south of the study area have not been investigated.

5.2.6 The proposed western access route runs roughly westwards for a short distance along a farm track immediately west of Stump Cross Caverns towards Nursery Knot. It turns north-north-east and is external to the west side of a series of small enclosed fields; it avoids several shake holes and crosses an enclosure wall before entering the study area to give access to the extensive area of grips on Jack Hole Flat.

5.2.7 The proposed eastern access route follows the shooting estate trackway running north onto the southern end of Hardcastle Moor. The route sticks to the metalled track as the eastern edge of the adjacent mining complex has not been recorded south of the study area. The proposed route then diverges from the metalled track to run north-west along the north side of the parish boundary (and into the study area) then crosses westwards across the boundary to give access to the extensive area of grips on North Side Moss.

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APPENDIX 1: PROJECT BRIEF

Hardcastle Moor, near Greenhow, North Yorkshire

Peatland Restoration Works

SE 098 656

Archaeological survey and assessment of palaeoenvironmental potential

23rd July 2012

This brief has been prepared by the Yorkshire Dales National Park Authority and North Yorkshire County Council on behalf of the Yorkshire Peat Partnership. The survey work outlined below has been developed in relation to a proposal for peat restoration works and for grip blocking works to be undertaken using machine cut peat plugs. The survey outlined is designed to provide a pre intervention record of archaeological remains in the area, and to inform the grip blocking process highlighting where unnecessary damage to archaeological features either through the cutting of peat plugs or through access with tracked excavators can be avoided. This area has been targeted for archaeological survey because of its proximity to known archaeological features, including prehistoric remains, as well as to known post-Medieval industrial workings, some of which are scheduled. The currently exposed sections of peat hags and eroded grips also provide an opportunity to gauge the palaeoenvironmental value of the peat at this location, including the recovery (and potential identification and dating) of sample ecofacts.

The project area straddles the boundary of the Yorkshire Dales National Park and Nidderdale AONB, consequently two HERs are involved, YDNP and NYCC (whose HER includes the AONB). Coincidentally there is a difference in the type of archaeological remains between the two HER areas and whilst every effort has been made to produce a brief which covers both, where necessary the brief has been split to reflect this difference.

1.0 INTRODUCTION

1.1 The area of Hardcastle Moor proposed for survey is an elevated area of blanket peat measuring approximately 8 km2 in area. It is centred approximately 2000m north west of Greenhow. As part of a Higher Level Stewardship agreement in place on the holding, a moorland restoration project is proposed. The restoration project will block a number of active grips (drains) that were cut into the peat (probably at some point between the end of the Second World War and the end of the 1970s). It will also install sediment traps into gullies, reprofile and revegetate areas of hagging (including gully sides), and revegetate areas of bare peat.

1.2 The restoration of the hydrology and ecology of intact areas of blanket peat has the potential to be beneficial for historic remains and may result in the long term survival of aspects of moorland archaeology and palaeoenvironmental remains that could otherwise be lost to natural erosion. However, there is also the potential for machine access and the cutting of peat dams and reprofiling work to either expose or damage archaeological features and deposits. The combination of marginal location, peat accumulation and lack of intense agricultural activity means that such areas can contain an exceptional survival of monuments (often including prehistoric remains). The peat itself may contain pollen which has the potential to provide information about the environmental conditions prevailing at the time of deposition. Peat can also contain buried flint scatters and ecofacts, typically tree remains. Some areas of blanket peat have been historically worked as peat cutting grounds, and may contain earthwork features associated with peat cutting activities.

1.3 The YDNP HER records a number of features within and near to the project area, The southern part of the allotments form part of the Greenhow mining field and are covered in extractive remains. Further north, there is historical evidence for a former peat cutting

ground and water management features (dams/leats) related to the mining. A layer of birch has been found within the peat during previous investigations.

1.4 The NYCC HER records a number of features within the project area, most significant of which are the widespread and dislocated remains of Stony Grooves and Merryfield Hole lead mines along Ashfoldside Beck, many elements of which are scheduled monument NHLE1018223. Old peat cutting grounds occur on Cranberry Moss and London/Fat Ewe Grain Moor where the bare peat may be important for checking for ecofacts and material such as flints on the interface between the old ground surface and the peat.

1.5 Potential contractors should submit a costed proposal and brief method statement which is developed from this specification. The method statement should indicate the work they would carry out to identify archaeological sites areas of high palaeoecological potential and ecofacts. The HER records a number of features and within the project area. There area also areas of high palaeoecological potential and probable ecofacts. The method statement and costings should be sent to the Countryside Archaeological Adviser at the Yorkshire Dales National Park Authority, the Rural Archaeologist at North Yorkshire County Council and Tessa Levens, Peatland Restoration Officer at the Yorkshire Peat Partnership.

2.0 SITE DESCRIPTION AND ACCESS

2.1 The survey area is centred at NGR SE 098656. The survey area covers 8.05 km2 and is shown on the attached map. For North Side and Jack Hole Allotments it is possible to park adjacent to the B6265, just west of Stump Cross Caverns or in one of the smaller lay-bys, whilst for Stoney Grooves and Fat Ewe Grain Moor the lay-by on Duck Street at Greenhow may be more suitable. There are tracks across the moor, however, any vehicle access onto the moor will need to be agreed with the landowner and gamekeeper.

2.2 The Project Area is a working landscape and Contractors will be expected to accede to all reasonable requests regarding access restrictions by those responsible for working the landscape, in particular as regards stock management, nesting birds and shooting.

3.0 SURVEY REQUIREMENTS

3.1 The objectives of the proposed work are:

- To identify, locate, and describe archaeological and historic features within the project area. With reference to the peatland restoration specifications, to indicate any remains that are vulnerable to damage through machine access, reprofiling or cutting of peat plugs. Remains are to be assigned to colour coded (red, amber, green) constraint zones in relation to their vulnerability to activity, and to enable the moorland restoration contractors to minimise risk to historic features.
- To inspect a 20% sample of grips across the project area, recording any features, lithics or other small finds exposed within the sections, and (if suitable examples are found) recovering sample ecofacts for identification and possible dating.
- To inspect all exposed peat hags and areas of bare peat across the project area, recording any features, lithics or other small finds exposed within the sections, and (if suitable examples are found) recovering sample ecofacts for identification and possible dating.
- Within the National Park area of the holding, there is an area of dense mining remains lying between the road and the area requiring grip blocking. The successful contractor will need to identify a number of ‘safe routes’ to allow machine access through the mining field. The routes should ensure that there will be no or minimal impact upon earthwork remains, and will be provided to the YPP in GIS format.
- Particular attention should be paid to ensure that the aims and objectives of the project are directly informed by the methodologies employed and that the project team displays the appropriate levels of expertise to carry out the work. The Contractor, the Contractor's staff and any sub-contractors will be expected to comply with relevant Codes of Practice of the Institute for Archaeologists.

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- YDNPA and NYCC HER data will be supplied to the successful contractor. Off–site assessment should include familiarisation with this material and other relevant HER data held by the YDNPA, including assessment of at least two sets of aerial imagery.

3.2 It is expected that the on-site assessment will consist of the following approaches.

3.3 Controlled walk over GPS survey to define and record the extent, size, and location of features across the project area. Because the resulting survey data will be utilised by the grip blocking contractor to avoid impacting on features with machines, the GPS unit(s) used will need to be capable of accurately locating features, although sub-metre accuracy is not required. The survey should be detailed enough that all significantly sized archaeological features (i.e. more than 3m in diameter) are recorded with line or polygon data. Written records of features are to be compiled using a data structure to be agreed with the YDNPA and NYCC. Written descriptions are to be supplemented with a digital photographic record.

3.4 An annotated photographic record is required of any significant ecofacts, archaeological features, lithics or other small finds located within the grip sections or areas of bare peat inspected. The locations of any such features or samples should also be recorded as part of the GPS survey.

3.5 An accompanying written report should provide an analysis of archaeological features, their function, any suggested phasing and potential importance. The report should clearly indicate where there are risks to historic features through the moorland restoration process, indicating where there is overlap between proposed moorland restoration activities, and any potential for damage to historic features. The traffic light system mentioned in 3.1 above should be developed to inform the restoration contractors.

3.7 The report should highlight five or six 'safe routes', that allow tracked machines to cross the mining field between the B6265 without causing damage to archaeological features. The contractor will need to bear in mind that the routes will need to be five or six metres in width to minimise any risk of clipping.

4.0 RECORDING STANDARDS

4.1 The contractor should agree the minimum information to be recorded about historic features with the YDNPA and NYCC HERs prior to work commencing. The written method statement should contain details of how digital data accompanying the written report will be submitted to the HER and concorded with existing records in the HBSMR system. An index of sites supplied in a format readable in MS Access or excel (for example .csv or .mdb), will accompany a completed OASIS record (see paragraph 5.3) and GIS/CAD data (see para 4.4). The index should record sites in accordance with the Thesaurus of Monument Types and core fields should be those necessary for records be to be compliant with MIDAS Heritage to level 1 (Basic).

4.2 Any drawn survey records should be presented as wet ink plots on standard 'A' size matt surface polyester film sheets, (minimum thickness 75 microns) with appropriate grid marks, height values, compass points and information panel incorporating title, drawing number, keys, credits etc. Drawing conventions should follow the guidelines set out by the RCHME in *Recording Archaeological Field Monuments: A Descriptive Specification* (RCHME 1999) and *Understanding Historic Buildings: A Guide to Good Recording Practic*e (English Heritage 2006).

4.3 All photographs should be clearly numbered and labelled with the subject, orientation, date taken, photographer's name and cross referenced to the specific feature recorded on the plan. All photographic material should be suitably stored and packaged to archival standards.

4.4 GIS database/ CAD files to be presented in a format to be agreed with both YDNPA and NYCC HERs and the Yorkshire Peat partnership to ensure integration both with current HER records and utility for the grip blocking contractor. Both HERs use HBSMR.

5.0 REPORTING

5.1 The assessment report should include:

i) Name of clients

ii) Executive Summary

iii) Contents list

iv) An outline of the project and its objectives

v) Plan of the project area, showing the position of all significant historic features and including moorland grips and areas of bare peat), tied into the OS grid. Grips, and any other modern features need to be themed, so as to be distinct from the recorded archaeological features

vii) A descriptive gazetteer of all identified archaeological features

viii) Copies of any relevant documentary material

ix) Photographic catalogue and photographs of selected features, findspots, ecofacts

x) A list of the archive contents and location.

xi) Notes and bibliography

xii) List and key to drawings and photographs

xiii) Names of staff involved and the parts played by each with the dates of fieldwork

xiv) Assessment of significance of archaeological remains

xv) Assessment of the significance of any palaeoecological remains or small finds recovered, with recommendations for specialist analysis/further identification if required.

xvi) A themed plan of historic features on the moor, indicating areas of vulnerability to moorland restoration activities. The plan is to be accompanied by a brief advice note detailing ways that the restoration contractors can minimise risk to the historic environment.

xvii) Acknowledgements

5.2 In addition to any copies required by the Yorkshire Peat Partnership, two hard copies of an A4 size report and one pdf copy of the report should be supplied to the Yorkshire Dales National Park Authority plus one hard copy and one pdf for North Yorkshire County Council. The report should be received no later than twelve weeks after the end of on-site work, or such longer period as may be agreed in writing with the relevant authorities.

5.3 Both the Yorkshire Dales National Park and North Yorkshire County Council HERs are taking part in the *Online Access to Index of Archaeological Investigations* (OASIS) project. The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large-scale developer funded fieldwork. The archaeological contractor must therefore complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. If the archaeological contractor does not have internet access a paper copy of the form can be obtained from the YDNPA/NYCC. Contractors are advised to contact the YDNPA or NYCC Historic Environment Record prior to completing the form.

5.4 Copyright, and all other intellectual property rights, in relation to the Project will pass to the Yorkshire Dales National Park Authority and North Yorkshire County Council on payment of the final invoice with the Yorkshire Peat Partnership and their successors in title being granted a full and unrestricted license to use the report and other material relating to the project in connection with their statutory duties. The NPA/NYCC may enter the information contained within the report into an electronic database and/or place the information on a website.

6.0 SITE ARCHIVE

6.1 The long term care of the project archive should be provided for in accordance with *Management of Archaeological Projects* (English Heritage 1991), and the *Guidelines for the Preparation of Excavation Archives for Long Term Storage* by UKIC Archaeology Section (1990). The Yorkshire Dales National Park Authority will accept the project archive as part of its Historic Environment Record. NYCC does not accept archive material.

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7.0 METHOD STATEMENT/SCHEDULE OF WORKS

7.1 The method Statement/Schedule of Works should include:-

i) Outline of proposed work programme including details of the survey methodologies, survey equipment and recording proforma etc which would be adopted.

ii) Date when archaeological works can commence on site.

iii) Maximum number of days to undertake the works on site.

iv) Details of professional personnel, including any subcontractors, who will be undertaking the archaeological works. The Contractor should demonstrate, by providing CV's if requested, that the staff appointed to direct, supervise and work on this project have relevant experience and understanding of archaeological remains in a moorland context, and have the skills appropriate to undertake out GPS/Walkover survey techniques to a professional standard.

v) Date by which the report would be complete.

vi) Copy of Health and Safety Risk Assessment.

8.0 HEALTH AND SAFETY

8.1 The contractor will naturally operate with due regard for Health and Safety regulations. This work will require the preparation of a Risk Assessment of the site, in accordance with the Health and Safety at Work Regulations, prior to submission of the quotation.

9 GENERAL CONSIDERATIONS

9.1 It should be noted that this specification is based on a rapid walk over of part of the application area. Contractors submitting quotations are strongly advised to carry out an inspection of the site prior to submission.

10.0 MONITORING

10.1 The contractor may be subject to regular monitoring visits by the Historic Environment Staff of the Yorkshire Dales National Park Authority in their role as 'curator' of the National Park's archaeology. The Contractor should give at least seven days notice in writing or by email of the start of survey work on site to the Countryside Archaeological Adviser at Yorkshire Dales National Park Authority and the Rural Archaeologist at North Yorkshire County Council.

11.0 CONTACT DETAILS

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12.0 REFERENCES

English Heritage, 2006, *Management of Research Projects in the Historic Environment.*
English Heritage, 2007 *Understanding landscapes: a guide to good recording practice*.
UKIC Archaeology Section, 1990, *Guidelines for the Preparation of Excavation Archives for Long Term Storage*

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APPENDIX 2: PROJECT DESIGN

1. INTRODUCTION

1.1 CONTRACT BACKGROUND

1.1.1 Yorkshire Peat Partnership has invited Oxford Archaeology North (OA North) to submit a project design for a programme of landscape survey and an assessment of re-wetting on Hardcastle Moor, near Greenhow, North Yorkshire (SE 100 655). The study area is in part within the Yorkshire Dales National Park and the Nidderdale AONB. The proposed programme is in accordance with a project brief provided by Yorkshire Peat Partnership and is intended to provide an assessment of the archaeological impact of a programme of grip blocking on the mossland.

1.2 ARCHAEOLOGICAL BACKGROUND

1.2.1 The survey work is to inform a proposal for grip blocking works to be undertaken using machine cut peat plugs. To provide pre-intervention records of archaeological remains in the area, and highlighting where unnecessary damage to archaeological features from cutting of peat plugs and/or through access with tracked excavators can be avoided. The currently exposed sections of eroded grips provide an opportunity to gauge the palaeoenvironmental value of the peat at this location, including the recovery (and potential identification and dating) of sample ecofacts.

1.2.2 OA North undertook a major assessment of the Upland Peats in England on behalf of English Heritage (OA North 2010), which has identified that there is an enormous archaeological resource within the peat covered uplands, but which is as yet unknown because of poor site visibility arising from the peat cover. The peat cover, while obscuring the sites, also has the potential to preserve them in a waterlogged state and as such has the potential to preserve an enormously significant resource. If the peat is degraded, drained or desiccated the peat is lost and the water logging that has preserved the organic components is lost then the sites will rapidly decompose. There are numerous examples of organic sites that have degraded over a matter of a few years once they have become desiccated as a result of changing drainage patterns.

1.2.3 The situation at Hardcastle Moor is such that Jackhole Moss, North Side Moss and parts of Cross Gill Moor have been extensively drained in the past. That may have caused irrevocable damage to the organic components of any sites, in which case the programme of re-wetting may be too late to save them. Alternatively there may still be surviving archaeology at locations remote from the individual grips. In any case there is still the potential for the survival of inorganic components of any sites. If peat developed from an early date on the moss this may have discouraged anthropogenic activity, and it is not uncommon to find that the archaeological resource beneath the peat is typically of an early date (eg Mesolithic). The impact of all of this is that it is necessary to assess the character and condition of the peats in order to determine the potential for underlying archaeological remains.

1.2.4 Extensive industrial remains of parts of the Greenhow lead mines are evident in the survey area, parts of this landscape were previously recorded during the Nidderdale AONB Archaeological Survey, which was conducted by OA North under its earlier guise of the Lancaster University Archaeological Unit (LUAU 2000). In addition, there are extant surviving elements of Merryfield House and Stoney Groove mines and North Rakes and Golden Fleece mines evident to the north and south of the survey area respectively (Gill 1998).

1.2.5 The area of Hardcastle Moor proposed for survey includes several areas of blanket peat included within Jack Hole Moss, Jack Hole Flat, North Side Moss, Cranberry Moss, Cross Gill Moor, and Hardcastle Moor. The survey area is centred at NGR SE 100 655. The survey area covers 5.84 km2. As part of a Higher Level Stewardship agreement in place on the holding, a moorland restoration project is proposed. The restoration project will block a number of active grips (drains) that were cut into the peat (probably at some point between the end of the Second World War and the end of the 1970s).

1.3 OXFORD ARCHAEOLOGY NORTH

1.3.1 OA North has considerable experience of the investigation of wetlands. OA North (formerly Lancaster University Archaeological Unit) undertook a major programme of survey of the North West lowland wetlands and has recently undertaken a programme of assessment of the Upland Peats by means of trial surveys across Northern England. OA North has undertaken an assessment of the impact of upland management strategies upon archaeological monuments on behalf of Natural England (ADAS and OA North 2009). This latter programme is specifically examining the issue of grips and means and strategies to block them, without causing undue impact upon the archaeological remains.

1.3.2 OA North has undertaken a large number of upland landscape surveys for a variety of clients (both private and national agencies such as English Heritage and Royal Commission on the Historical Monuments of England (RCHM(E)) and employs a qualified surveyor (Jamie Quartermaine, BA, DipSurv, MIFA) who has many years experience of the identification and survey of upland landscapes, having worked closely with the RCHM(E) and the Lake District National Park Authority on a large number of projects.

1.3.3 Since 1982 OA North has been undertaking extensive upland landscape surveys throughout Northern England and Wales. Surveys include the Lake District National Park Survey, the Torver Common surveys (Lake District), Haweswater and Thirlmere estate surveys (Lake District), Lyme Park (Peak District), most of the Forest of Bowland AONB, Lancashire, and a multitude of smaller landscape projects which include the Otterburn Range surveys in the Northumberland National Park. In particular OA North has undertaken a detailed survey of an upland estate at Hartley, Eden Valley involving a detailed documentary study and surface survey. To date OA North has undertaken archaeological field surveys of over 930sqkm of upland landscapes and has recorded over 24,000 field monuments. OA North can claim to be one of the foremost specialists in the field of upland landscape recording.

1.3.4 The western part of the study area has previously been recorded during the Nidderdale AONB Archaeological Survey, which was conducted by OA North under its earlier guise of the Lancaster University Archaeological Unit (LUAU 2000).

1.3.5 OA North and all its members of staff operate subject to the Institute for Archaeologists (IfA) Code of Conduct.

2. OBJECTIVES

2.1 The primary purpose of the project is to inform future management decisions with regard to the application of grip blocking and moorland re-wetting. The proposed study is intended to identify archaeological remains on the surface or within the peat. It is also important that an assessment is made of the impact upon the peats as these protect the buried archaeological resource and any severe damage to them will inevitably damage or destroy the underlying resource. The aims of this initial project are broadly as follows:

- to establish sufficient information to establish the location, extent, character, period, condition, fragility and potential of any surviving surface archaeological features;
- to establish any evidence of impact by the gripping operations and machine access upon extant archaeological sites.
- to inspect a 20% sample of grips across the project area, recording any features, lithics or other small finds exposed within the sections. Recover a sample of ecofacts for identification and possible dating. Areas of actively eroding and hagged peat should also be inspected.

3. METHOD STATEMENT

3.1 The following work programme is submitted in line with the objectives of the archaeological work summarised above. It is divided into three elements, archaeological field survey, ecological assessment and reporting.

3.2 OFFICE DESK-BASED FAMILIARISATION

3.2.1 Records held by the YDNPA and NCC will be accessed and incorporated into the project GIS. This will include the YDNPA HBSMR and the NYCC HER data and also an examination of aerial photographs with a view to taking copies of select examples in advance of the project. OS first edition and second edition mapping will be examined.

3.3 FIELD SURVEY METHODOLOGY

3.3.1 The survey will be undertaken as an enhanced Level 1 type survey (details of OA North's survey levels are contained in *Appendix 1*). The survey study area is as defined in the project brief and encompasses 5.8 sqkm. The survey will involve four elements: Reconnaissance, Mapping, Description and Photography.

2.3.5 ***Reconnaissance:*** the reconnaissance will consist of close field walking, varying from 10m to 20m line intervals dependent on visibility and safety considerations. The survey will aim to identify, locate and record archaeological sites and features on the ground and thus all sites noted will be recorded. The extent of any areas where there is no access will be defined on maps and depicted on the CAD/GIS mapping. The survey will take considerable care to examine areas of disturbance through the peat, be that borrow pits created by the grip blocking, the undisturbed grips, erosion scars from vehicle damage and any other peat exposures. The survey will investigate and record all archaeological features and retrieve sample ecofacts and artefacts from a defined sample group of consisting of 20% of extant grips across the study area of all identified peat hag scars across the study area. These will specifically examine evidence for finds or structural entities within the section and the interface between the peat and the mineral soil. It should be born in mind that finds are not normally revealed within newly disturbed section; instead the sections need to be exposed for a while to allow them to weather in order to highlight any artefactual material.

2.3.6 ***Survey mapping:*** a Satellite Global Positioning System (GPS) will be utilised to satisfy English Heritage defined Level 1 survey requirements (Ainsworth *et al* 2007). The GPS is a Leica differential system achieves much greater accuracies than can be achieved with a hand held GPS. The accuracy of the OA North GPS system is capable of +- 0.02m and provides for a quick and effective means of recording the position and extent of sites. The GPS techniques will be used to record the extent of the site. The survey will record all archaeological sites as point data and any significantly sized archaeological features (more than 3m in diameter) with line or polygon data. The locations of any retrieved archaeological artefacts and ecofacts identified and/or retrieved during the project will also be recorded.

2.3.7 ***Site Description and Assessment:*** it is proposed that the data be directly input on site into a palm computer, which is within a weatherproof case. The data will be incorporated into an Access compatible database. The data will be backed up onto a portable computer running Access suitable for direct import to the North Yorkshire HER. The input into the system will be guided by a proforma to ensure uniformity and consistency of input, and will provide input for the following core fields:

3.3.5 The description will record if it will be impacted by any of the grip blocking operations, or how close it is to any surface disturbance. It will examine if it has been exposed within peat exposures and at what depth it is revealed.

3.3.6 The description will incorporate a provisional interpretation of the function and purpose of a site, where possible, and similarly will provide a provisional interpretation of the site's chronology where possible.

3.2.7 ***Photographic Survey:*** a digital photographic archive will be generated in the course of the field work, comprising landscape and detailed photography. This will record any significant ecofacts, archaeological features, lithics or other small finds located within the grip sections or areas of bare peat inspected. Detailed photographs will be taken of all sites using a scale bar. All photography will be recorded on photographic pro-forma sheets which will show the subject, orientation and date. Digital imagery, rather than conventional film photography, is acceptable for the photographic recording although 10mega pixel resolution will be used as a minimum. Unedited images should be archived as tiff files, as well as processed images. A full image catalogue is required as part of the archive. Metadata will be embedded in the DNG file, which will include an agreed name for the site, the subject of the photograph, the date of the

photograph, the OS grid coordinates, the name of the organisation taking the photograph, the direction of shot.

3.2.8 ***Ecological and Artefact Assessment:*** identified ecofacts will be examined, recorded and photographed in situ, and will include areas of tree remains exposed in hag sections. Individual exposed artefact finds of significance will be collected, catalogued and stored, and where a complex site such as a lithic scatter is encountered, a small sample will be gathered. The extents of any concentrated areas of finds will be recorded by GPS. If significant ecofacts are identified they will be recovered for analysis and dating. The present costs do not allow for any scientific dating.

3.2.9 ***Route Assessment:*** an assessment will be made of routes for machinery across the area of mining remains to the north of the B6265 and in the area of Stump Cross. This will be undertaken on the basis of aerial photographic and field survey evidence.

3.4 PROJECT ARCHIVE

3.4.1 ***Archive:*** the results of the fieldwork will form the basis of a full archive to professional standards, in accordance with current English Heritage guidelines (Management of Archaeological Projects, 2nd edition, 1991). The project archive represents the collation and indexing of all the data and material gathered during the course of the project. This archive will be provided in the English Heritage Centre for Archaeology format, both as a printed document and digitally. Digital survey data will be provided in a suitable format for incorporation into the MapInfo Geographical Information System (GIS). A synopsis (normally the index to the archive and the report) should be placed in the Yorkshire Dales Sites and Monuments Record and the North Yorkshire County Council HER.

3.4.2 ***Digital Presentation:*** the survey data will be digitally transferred into a GIS system and superimposed with digital 1:10,000 OS data. The dimensioned site drawings will be digitally superimposed onto the raw survey data, thereby ensuring a high level of both numeric and representational accuracy. The final output drawings will be output in DXF, and Autocad format. The drawings can be output at any required scale, although the accuracy of generation assumes that the drawings will not be reproduced at scales of greater than 1:5000. The archive will be passed to the Yorkshire Dales National Park Authority and a digital copy will be passed to the client on completion of the survey alongside the final report.

3.5 REPORTING

3.5.1 ***Assessment of Archaeological Resource:*** an assessment will be made of the extent, character and diversity of the archaeological resource across the extent of the study area. It will make an assessment of the potential for buried archaeology on the basis of the observed evidence and by comparison with areas examined as part of the Upland Peats Project.

3.5.2 ***Report Content:*** the full report will consist of an acknowledgements statement, lists of contents, summary, introduction summarising the brief and project design and any agreed departures from them, methodology, interpretative account of remains found, assessment of the impact of the re-wetting upon the peats, assessment of the impact of the re-wetting upon the archaeological resource, assessment of the significance of the remains, conclusions, a gazetteer of sites, list of archive contents and bibliography. Illustrative material will include photographs, location maps and plans, and will include a colour coded plan of historic features that may be susceptible to impact during the peat operations. The report will make recommendations for the management of future grip-blocking in relation to the archaeological resource

3.5.3 The report will provide colour coding for the monuments in relation to their vulnerability. The report will also define a series of routes to allow vehicles to cross the area of mining.

3.5.4 ***Output:*** four bound and one pdf copy of the full report will be submitted to the Yorkshire Dales National Park Authority and to the NYCC HER. GIS database/ CAD files will be presented in a format to be agreed with the YDNPA HER, NYCC HER and the Yorkshire Peat Partnership to ensure integration both with current HER records and the utility for the grip blocking contractor. Digital geographic data are to be presented in ESRI .shp and/or MapInfo .tab. format.

3.5.5 ***Publication:*** information from the project will be fed into the OASIS project (On-line Access to Index of Archaeological Investigation).

3.6 CONFIDENTIALITY

3.6.1 The report is designed as a document for the specific use of the Client, for the particular purpose as defined in the project brief and project design, and should be treated as such; it is not suitable for publication as an academic report, or otherwise, without amendment or revision. Any requirement to revise or reorder the material for submission or presentation to third parties beyond the project brief and project design, or for any other explicit purpose, can be fulfilled, but will require separate discussion and funding.

4. OTHER MATTERS

4.1 ACCESS

4.1.1 It is assumed that OA North will have unrestricted pedestrian access to the study area for the duration of the survey, and that access will be negotiated with the land owner.

4.2 Health and safety

4.2.1 Full regard will, of course, be given to all constraints (services) during the survey, as well as to all Health and Safety considerations. The OA North Health and Safety Statement conforms to all the provisions of the SCAUM (Standing Conference of Unit Managers) Health and Safety manual, as well as the OA Health and Safety Statement. Risk assessments are undertaken as a matter of course for all projects, and will anticipate the potential hazards arising from the project.

4.3 INSURANCE

4.3.1 The insurance in respect of claims for personal injury to or the death of any person under a contract of service with the Unit and arising in the course of such person's employment shall comply with the employers' liability (Compulsory Insurance) Act 1969 and any statutory orders made there under. For all other claims to cover the liability of OA North in respect of personal injury or damage to property by negligence of OA North or any of its employees there applies the insurance cover of £10m for any one occurrence or series of occurrences arising out of one event.

4.4 WORKING HOURS

4.4.1 Survey works will be undertaken on the basis of a five day week, within daylight hours only.

4.5 PROJECT MONITORING

4.5.1 Monitoring meetings, if required, will be established with the YDNPA Historic Environment staff at the outset of the project. It is anticipated that these will involve a preliminary meeting at the commencement of the project and possibly progress meetings during fieldwork.

4.5.2 OA North will inform the client of all significant developments, and any potential departures from the agreed programme will be discussed and agreed with them prior to implementation.

5. WORK TIMETABLE

5.1 PHASES OF WORK COMPRISING:

5.1.1 ***Field Survey***

Nine days will be required for the field survey

5.1.2 ***Archive and Reporting***

20 days would be required to complete this element.

5.1.3 The project can be undertaken at short notice, subject to the requirements of the client and to fit in with any scheduled work programme.

6. OUTLINE RESOURCES

6.1 STAFFING

6.1.1 The project will be under the management of **Jamie Quartermaine BA DipSurv** (OA North Project Manager) to whom all correspondence should be addressed. He will monitor the progress of the project ensuring adherence to all agreed programmes and timetables. He will also provide technical back-up, advice, and will have editorial control over the compilation of the full report. He has many years experience of surveying upland landscapes, particularly in the Lake District. Jamie will provide a post-survey assessment of the results in conjunction with the project director.

6.1.2 The field survey will be led by **Peter Schofield** (OA North Project Officer) who works full time on landscape surveys across the north of England and Wales. He has undertaken surveys at Little Asby Common, Hardknott Forest and Hartley Fold Estate, Cumbria. Whole valley surveys of Ennerdale, Buttermere, Borrowdale and Wasdale in the central Lake District fells, and eight seasons of landscape survey across over 200sq km of upland areas in North Wales. With the exception of Jamie Quartermaine, he is our most experienced landscape archaeologist.

6.1.3 Ecological Advice will be provided by **Elizabeth Huckerby** BA MSc MIFA (Senior Palaeoenvironmentalist). She is experienced in producing reports for assessment and publication. She joined OA North in 1990 when she worked as Palynological Project officer for the North West Wetlands Survey (NWWS). She specialises in palynology and collaborated in the successful isolation of Icelandic tephra from a lowland raised mire in England. Since the completion of the NWWS she been involved mainly in developer funded Archaeology both as a palynologist and archaeobotanist, and has incorporated work on prehistoric, Roman, Medieval and historic sites in the north and south of England. Prehistoric sites include two Bronze Age burnt mounds in Cumbria, at Drigg and Sparrowmire. She has worked on environmental remains from Roman and Medieval sites in Lancaster, Carlisle, Kirkby Thore Cumbria, Berwick and Gateshead, the latter two in Northumberland. Studies from these sites incorporated the assessment and analysis of charred and waterlogged plant remains and pollen. Her main skills are archaeobotany, pollen and plant macrofossil identification. Extensive knowledge of the palaeoecology of North West England. Environmental sampling and processing procedures. She has considerable experience of selecting and submitting samples for radiocarbon dating, and she has co-authored countless books, papers and client reports.

APPENDIX 3: GAZETTEER OF SITES

Period	Date Range
Palaeolithic	30,000 – 10,000 BC
Mesolithic	10,000 – 4000 BC
Neolithic	4000 – 2400 BC
Bronze Age	2400 – 700 BC
Iron Age	700 BC – AD 43
Romano-British	AD 43 – AD 410
Early Medieval	AD 410 – AD 1066
Late Medieval	AD 1066 – AD 1540
Post-medieval	AD 1540 – c1750
Industrial Period	cAD 1750 – 1914
Modern	Post-1914

Table 2: Summary of British archaeological periods and date ranges

Site Number **1**
Site Name **Peat Cutting, Bewerly Moor, Hardcastle Moor**
NGR SE 09893 65234
Site Type Peat Cutting
Period Post-medieval
Source Walkover Survey, GIS
Description Sub-rectangular peat cutting partially depicted in GIS as an area of bare peat. It measures approximately 45m south-west/north-east by 12m and is up to 1m deep
Vulnerability Low

Site Number **2**
Site Name **Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR SE 09620 65048
Site Type Shooting Stand
Period Industrial Period to Modern
Source Walkover Survey, Modern OS map
Description Drystone shooting stand, three-sided rectangle with a turf top, built over an enclosure boundary wall, 3.5m x 2.5m x 1.2m high. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability Medium

Site Number **3**
Site Name **Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR SE 09673 65035
Site Type Shooting Stand
Period Industrial Period to Modern
Source Walkover Survey, Modern OS map

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Description	Drystone shooting stand, three-sided rectangle with a turf top, partly sunken into the slope, 3m x 3m x 0.8m external height. It is one of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Medium

Site Number	**4**
Site Name	**Shooting Stand, Fat Ewe Grain Moor, Hardcastle Moor**
NGR	SE 09725 65023
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map
Description	Drystone shooting stand, three sided rectangle with a turf top, 3m x 2m x 1.2m high. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Low

Site Number	**5**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09295 64911
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey
Description	Heavily denuded, sub-circular turf shooting stand with a central wooden stake, 6m diameter x 0.2m high. One of a line of shooting stands (OA North Sites ***5-6*** and ***12-14***).
Vulnerability	Medium

Site Number	**6**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09345 64853
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey
Description	Heavily denuded, sub-circular turf shooting stand, 6m diameter x 0.2m high. One of a line of shooting stands (OA North Sites ***5-6*** and ***12-14***).
Vulnerability	Medium

Site Number	**7**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09349 64813
Site Type	Shooting Stand
Period	Modern
Source	Walkover Survey, Modern OS map
Description	Three-sided shooting stand, made from upright concrete flags, partially sunken, turfed on outer sides, 2m x 2m x 1.2m internal height. One of a line of shooting stands (OA North Sites *7-**10*** and ***15-21***).
Vulnerability	Medium

Site Number	**8**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09302 64847
Site Type	Shooting Stand
Period	Modern
Source	Walkover Survey, Modern OS map
Description	Three-sided shooting stand, made from upright concrete flags, partially sunken, turfed on outer sides, 2m x 2m x 1.2m internal height. One of a line of shooting stands (OA North Sites *7-**10*** and ***15-21***).

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Vulnerability Low

Site Number **9**
Site Name **Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR SE 09254 64883
Site Type Shooting Stand
Period Industrial Period to Modern
Source Walkover Survey, Modern OS map
Description Drystone shooting stand, three-sided rectangle with a turf top, sunken, 3m x 2m x 1.2m internal height. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability Medium

Site Number **10**
Site Name **Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR SE 09200 64923
Site Type Shooting Stand
Period Industrial Period to Modern
Source Walkover Survey, Modern OS map
Description Drystone shooting stand, collapsed three-sided structure with a turf bank outside and a central post, 2.2m x 2m x 0.7m internal height. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability Medium

Site Number **11**
Site Name **Peat Cutting, Franky Hole Gill Head, Hardcastle Moor**
NGR SE 09314 64986
Site Type Peat Cutting
Period Post-medieval
Source Walkover Survey, 1st Edition OS map
Description An elongated area of peat cutting located east of the boundary at Franky Hole Gill Head. It is depicted on the 1st edition OS mapping. It measures approximately 260m x 80m and has a well-defined southern edge measuring up to 1.5m deep.
Vulnerability High

Site Number **12**
Site Name **Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR SE 09242 64964
Site Type Shooting Stand
Period Industrial Period to Modern
Source Walkover Survey
Description A collapsed drystone shooting stand built into an enclosure boundary wall. It measures 2.5m square by 0.3m high. One of a line of shooting stands (OA North Sites ***5-6*** and ***12-14***).
Vulnerability Low

Site Number **13**
Site Name **Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR SE 09190 65022
Site Type Shooting Stand
Period Industrial Period to Modern
Source Walkover Survey, Modern OS map
Description Collapsed V-shaped drystone shooting stand. It measures 3m x 2.5m by 0.5m high. One of a line of shooting stands (OA North Sites ***5-6*** and ***12-14***).
Vulnerability Low

Site Number	**14**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09399 64797
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey
Description	Denuded turf shooting stand with central post, northern edge truncated by a deep grip, 4.5m x 4m x <0.5m high. One of a line of shooting stands (OA North Sites ***5-6*** and ***12-14***).
Vulnerability	Medium

Site Number	**15**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09395 64780
Site Type	Shooting Stand
Period	Modern
Source	Walkover Survey, Modern OS map
Description	Three-sided shooting stand, made from upright concrete flags, partially sunken, turfed on outer sides, 2m x 2m x 1.2m internal height. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability	Medium

Site Number	**16**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09448 64741
Site Type	Shooting Stand
Period	Modern
Source	Walkover Survey, Modern OS map
Description	Three-sided shooting stand, made from upright concrete flags, partially sunken, turfed on outer sides, 2m x 2m x 1.2m internal height. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability	Medium

Site Number	**17**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09508 64696
Site Type	Shooting Stand
Period	Modern
Source	Walkover Survey, Modern OS map
Description	Three-sided shooting stand, made from upright concrete flags, partially sunken, turfed on outer sides, 2m x 2m x 1.2m internal height. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability	Low

Site Number	**18**
Site Name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09566 64653
Site Type	Shooting Stand
Period	Modern
Source	Walkover Survey, Modern OS map
Description	Three-sided shooting stand, made from upright concrete flags, partially sunken, turfed on outer sides, 2m x 2m x 1.2m internal height. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability	Low

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Site Number	**19**
Site Name	**Shooting Stand, London, Hardcastle Moor**
NGR	SE 09623 64610
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map
Description	Drystone shooting stand, three-sided rectangle with a turf top, 3m x 2.75m x 1-1.2m high, walls 0.7m thick. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability	Low

Site Number	**20**
Site Name	**Shooting Stand, London, Hardcastle Moor**
NGR	SE 09680 64565
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map
Description	Drystone shooting stand, three-sided rectangle with a turf top, 3m x 3m x 1.2m high. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability	Low

Site Number	**21**
Site Name	**Shooting Stand, London, Hardcastle Moor**
NGR	SE 09745 64519
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map
Description	Drystone shooting stand, three-sided rectangle with a turf top, built into enclosure boundary wall. One of a line of shooting stands (OA North Sites ***7-10*** and ***15-21***).
Vulnerability	Medium

Site Number	**22**
Site Name	**Trackway, Caygill Moss, Hardcastle Moor**
NGR	SE 09097 65306
Site Type	Trackway
Period	Post-medieval
Source	Walkover Survey
Description	A linear embanked trackway or derelict boundary bank, oriented roughly north-north-west/south-south-east and located mostly on the east side of the enclosure boundary at Caygill Moss. It is slightly embanked with revetted stone edging and has drainage gullies to either sides. The surviving section measures approximately 590m long by 1.75m wide and 0.2-0.3m high.
Vulnerability	High

Site Number	**23**
Site Name	**Hut, Jack Hole Allotment, Hardcastle Moor**
NGR	SE 08656 64500
YDNPSMR	MYD15175
Site Type	Hut
Period	Industrial Period
Source	Walkover Survey, 1st Edition OS map, HER/SMR
Description	A hut, depicted on the 1st edition 6" OS ma; it is no longer extant (MYD15175). OA North Field Visit 2012: The possible foundation remains of a shooting shelter named 'Pimley Hut' that was depicted on the OS 1st Edition mapping. It consists of a denuded

	C-shaped turf mound with a central hollow, and is one of a pair of such features each measuring 5.5m in diameter by 0.5m high.
Vulnerability	Low

Site Number	**24**
Site Name	**Shooting Stand, Jack Hole Allotment, Hardcastle Moor**
NGR	SE 08672 64486
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey
Description	A denuded C-shaped turf shooting stand with a central hollow, one of a pair of features measuring, 5m x 4m x 0.5m high.
Vulnerability	Low

Site Number	**25**
Site Name	**Shooting Stand, Jack Hole Allotment, Hardcastle Moor**
NGR	SE 08597 64505
YDNPSMR	MYD41955
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, HER/SMR
Description	A number of mine shafts of unknown date, seen as small, circular earthworks aligned in a linear pattern (MYD41955). OA North Field Visit 2012: A possible linear group of shafts or alternatively several shooting stands associated with 'Pimley Hut' (OA North Site 23). This feature consists of a denuded C-shaped turf shooting stand with a central hollow, 6m x 5m x 0.75m high.
Vulnerability	Low

Site Number	**26**
Site Name	**Shooting Stand, Jack Hole Allotment, Hardcastle Moor**
NGR	SE 08606 64516
YDNPSMR	MYD41955
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, HER/SMR
Description	A number of mine shafts of unknown date, seen as small, circular earthworks aligned in a linear pattern (MYD41955). OA North Field Visit 2012: A possible linear group of shafts or alternatively several shooting stands associated with 'Pimley Hut' (OA North Site 23). This feature consists of a denuded C-shaped turf shooting stand with a central hollow, 5m diameter x 0.75m high.
Vulnerability	Low

Site Number	**27**
Site Name	**Shooting Stand, Jack Hole Allotment, Hardcastle Moor**
NGR	SE 08611 64526
YDNPSMR	MYD41955
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, HER/SMR
Description	A number of mine shafts of unknown date, seen as small, circular earthworks aligned in a linear pattern (MYD41955). OA North Field Visit 2012: A possible linear group of shafts or alternatively several shooting stands associated with 'Pimley Hut' (OA North Site 23). This feature consists of a denuded C-shaped turf shooting stand with a central hollow, 5m diameter x 0.5m high.
Vulnerability	Low

Site Number	**28**
Site Name	**Shooting Stand, Jack Hole Allotment, Hardcastle Moor**
NGR	SE 08584 64485
YDNPSMR	MYD41955
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey, HER/SMR
Description	A number of mine shafts of unknown date, seen as small, circular earthworks aligned in a linear pattern (MYD41955). OA North Field Visit 2012: a possible linear group of shafts or alternatively several shooting stands associated with 'Pimley Hut' (OA North Site 23). This feature consists of a denuded C-shaped turf shooting stand with a central hollow, 7m diameter x 0.5m high.
Vulnerability	Low

Site Number	**29**
Site Name	**Shaft, North Rakes Mine, Hardcastle Moor**
NGR	SE 08753 64069
Site Type	Shaft Mound
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map
Description	Disused shaft, circular turf-covered bank 12m diameter x 2-3m wide x 1m high.
Vulnerability	High

Site Number	**30**
Site Name	**Shaft, North Rakes Mine, Hardcastle Moor**
NGR	SE 08830 64001
Site Type	Shaft Mound
Period	Industrial Period to Modern
Source	Walkover Survey
Description	A large disused shaft, circular at the top but oval in plan due to spill down slope into stream gully on the east side. It has a turf-covered upcast bank overliing an enclosure boundary wall on the west side. It measures 17m x 25m (down the gully bank) x 2m high.
Vulnerability	High

Site Number	**31**
Site Name	**Hunting Lodge, Round Hill Gill, Hardcastle Moor**
NGR	SE 10245 64816
Site Type	Hunting Lodge
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map
Description	A stone-built hunting lodge. A four-bay single-storey structure with a lean-to toilet on the south-east side. Not depicted on the 1st Edition OS mapping.
Vulnerability	Low

Site Number	**32**
Site Name	**Cairn, Hardcastle Moor**
NGR	SE 10564 65464
Site Type	Cairn
Period	Unknown
Source	Walkover Survey
Description	Circular cairn located on Hardcastle Moor. It measures 5m in diameter by 1m high. The upper half looks relatively new and may be a boundary marker cairn but it possibly overlies an earlier moss-covered cairn.
Vulnerability	Low

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Site Number	**33**
Site Name	**Hut, Hardcastle Moor**
NGR	SE 10820 65411
Site Type	Hut
Period	Industrial Period to Modern
Source	Walkover Survey, 1st Edition OS map
Description	A drystone shooting shelter marked as 'Little Betty' on the 1st Edition OS mapping. It is a three-sided rectangle, measuring 2-3m x 1.6m x 1.2-1.3m high.
Vulnerability	Low

Site Number	**34**
Site Name	**Platform, Hardcastle Moor**
NGR	SE 11141 65275
Site Type	Platform
Period	Industrial Period to Modern
Source	Walkover Survey
Description	A partially collapsed rectangular platform constructed of angular quarried slabs. It measures 2m x 1m x 1m high. It possibly had a winding or stanchion base function and may have been associated with a tower located to the south at Thieveshaugh Gill.
Vulnerability	Low

Site Number	**35**
Site Name	**Shooting Stand, Bewerly Moor, Hardcastle Moor**
NGR	SE 11387 65273
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey
Description	Drystone shooting stand, three-sided rectangle; it is later than the enclosure boundary wall which has been dismantled around it. It measures 2.8m x 1.75m x 1-1.2m high.
Vulnerability	Low

Site Number	**36**
Site Name	**Shooting Stand, Bewerly Moor, Hardcastle Moor**
NGR	SE 11392 65317
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey
Description	A drystone shooting stand, three-sided rectangle, later than enclosure boundary wall which has been dismantled around it, it measures 2.5m x 2m x 1m high.
Vulnerability	Low

Site Number	**37**
Site Name	**Shooting Stand, Bewerly Moor, Hardcastle Moor**
NGR	SE 11395 65360
Site Type	Shooting Stand
Period	Industrial Period to Modern
Source	Walkover Survey
Description	A drystone shooting stand, three-sided rectangle, turf-topped, later than enclosure boundary wall which has been dismantled around it, it measures 2.1m x 1.6m x 1m high.
Vulnerability	Low

Site Number	**38**
Site Name	**Hut, Hardcastle Moor**
NGR	SE 11431 65477
NYCCHER	MNY22541
Site Type	Hut
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map, HER/SMR, LUAU, 2000
Description	Small rectangular structure, listed as sheepfold. Built into dry stone boundary, aligned east/west and is 50% intact. It is 4m x 2.5m, max height 1.5m, wall thickness 0.5m. Constructed from dressed and coursed sandstone. It has an entrance 1m wide facing east, full formed dressed reveals and wooden plugs still *in situ* indicates the building had a door. Also reveal of small window still intact in north wall. The standard of stonework and evidence of door & window suggest this was a small building and not a stockfold (MNY22541). OA North Field Visit 2012: a rectangular shooting lodge or possibly a stockman's store/shelter associated with the adjacent pheasantry (OA North Site ***39***). It consists of a ruinous and un-roofed single-celled and single-storey hut. It was constructed of angular quarried stones with lime mortar and has a doorway on the east side. The hut predates the surrounding enclosure boundary walls at this location but it is not depicted on the 1st Edition OS mapping. It measures 3.75m x 2.75m x 1m high.
Vulnerability	Low

Site Number	**39**
Site Name	**Pheasantry, Hardcastle Moor**
NGR	SE 11416 65469
Site Type	Pheasantry
Period	Industrial Period to Modern
Source	Walkover Survey, Modern OS map
Description	A trapezoidal drystone walled enclosure measuring 140m by 43m. It was not depicted on the 1st Edition OS mapping but is probably a pheasantry. It contains fir tree plantation with a modern pen. There is a hut/store on the east side (OA North Site ***38***).
Vulnerability	Low

Site number	**40**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10606 65750
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	A collapsed drystone shooting stand, with a slightly embanked horseshoe shape, 3.5m x 3m x 0.6m high. One of a line of shooting stands (OA North Sites ***40-45***).
Vulnerability	Low

Site number	**41**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10553 65702
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	A collapsed drystone shooting stand, slightly embanked horseshoe shape, 3.5m x 3m x 0.5m high. One of a line of shooting stands (OA North Sites ***40-45***).
Vulnerability	Low

Site number	**42**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10504 65647
Site type	Shooting Stand

Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Collapsed drystone shooting stand, slightly embanked horseshoe shape, 3.5m x 4m x 0.8m high. One of a line of shooting stands (OA North Sites ***40-45***).
Vulnerability	Low

Site number	**43**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10461 65596
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Collapsed drystone shooting stand, slightly embanked sub-circular shape, 5m diameter x 0.5m high. One of a line of shooting stands (OA North Sites ***40-45***).
Vulnerability	Low

Site number	**44**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10423 65531
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	A very badly denuded drystone shooting stand with central wooden post, rounded V shape, 3m diameter x 0.2m high. One of a line of shooting stands (OA North Sites ***40-45***).
Vulnerability	Low

Site number	**45**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10390 65486
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Collapsed drystone shooting stand, slightly embanked horseshoe shape, 3.5m x 3m x 0.75m high. One of a line of shooting stands (OA North Sites ***40-45***).
Vulnerability	Medium

Site number	**46**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10294 65405
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turf-topped rectangle, sunken with steps down on the western side which stick out further, 4m x 3m4m x 0.2m external height and 1.25m internal. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Low

Site number	**47**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10319 65449
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map

Description	Drystone shooting stand, turf-topped rectangle, sunken with steps down on the western side which stick out further, 3.5m x 3.5m x 0.5m external height and 1.2m internal. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Medium

Site number	**48**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10339 65496
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turftopped rectangle, sunken with steps down on the western side which stick out further, 3.5m x 3.5m x 0.6m external height and 1.1m internal. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Medium

Site number	**49**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10360 65536
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turf-topped rectangle, sunken with steps down on the western side, 3.5m x 3.5m x 0.6m external height and 1.2m internal. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Medium

Site number	**50**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10384 65577
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turf-topped rectangle, sunken with steps down on the western side, 4m x 3.5m x 0.7m external height and 1.2m internal. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Medium

Site number	**51**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10400 65615
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turf-topped rectangle, partly sunken with steps down on the western side which stick out further, 4m x 3.5m x 0.7m external height and 1.2m internal. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Medium

Site number	**52**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10424 65660
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map

Description	Drystone shooting stand, turf-topped rectangle, partly sunken with steps up from the back, 4m x 4m x 1.2m high. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Low

Site number	**53**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10445 65709
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turf-topped rectangle, partly sunken, square with an angled wall off the south-east corner, 4m x 4m x 1.2m high. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Low

Site number	**54**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10470 65756
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turf-topped rectangle, partly sunken, 4m x 3m x 1m high. One of a line of shooting stands (OA North Sites ***46-54***).
Vulnerability	Low

Site number	**55**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10076 65585
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Internally revetted drystone shooting stand, turf-topped, three-sided rectangle, partly sunken with steps down from rear, 7m x 4.5m x 0.6m high. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability	Low

Site number	**56**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10126 65612
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	A C-shaped partially sunken drystone shooting stand, turf-topped, slightly embanked, 4m x 3.5m x 0.6m external height. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability	Low

Site number	**57**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10183 65637
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Three-sided rectangular drystone shooting stand, partially sunken, turf-topped, 3m x 2.5m x 1.3m high. One of a line of shooting stands (OA North Sites ***55-63***).

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Vulnerability Low

Site number **58**
Site name **Shooting Stand, Hardcastle Moor**
NGR SE 10250 65667
Site type Shooting Stand
Period Industrial Period to Modern
Sources Walkover Survey, Modern OS map
Description Three-sided rectangular drystone shooting stand, partially sunken, turf-topped, 3m x 2.5m x 1.3m high. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability Low

Site number **59**
Site name **Shooting Stand, Hardcastle Moor**
NGR SE 10308 65694
Site type Shooting Stand
Period Industrial Period to Modern
Sources Walkover Survey, Modern OS map
Description Three-sided rectangular drystone shooting stand, partially sunken, turf-topped, 3m x 2.5m x 1.3m high. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability Low

Site number **60**
Site name **Shooting Stand, Hardcastle Moor**
NGR SE 10370 65727
Site type Shooting Stand
Period Industrial Period to Modern
Sources Walkover Survey, Modern OS map
Description Three-sided rectangular drystone shooting stand, partially sunken, turf-topped, 3m x 2.5m x 1.3m high. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability Low

Site number **61**
Site name **Shooting Stand, Hardcastle Moor**
NGR SE 10431 65756
Site type Shooting Stand
Period Industrial Period to Modern
Sources Walkover Survey, Modern OS map
Description Three-sided rectangular drystone shooting stand, partially sunken, turf-topped, 3m x 2.5m x 1.3m high. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability Low

Site number **62**
Site name **Shooting Stand, Hardcastle Moor**
NGR SE 10487 65787
Site type Shooting Stand
Period Industrial Period to Modern
Sources Walkover Survey, Modern OS map
Description Three-sided rectangular drystone shooting stand with an embanked south-eastern side, partially sunken, turf-topped, 6m x 4m x 1.3m high. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability Medium

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Site number	**63**
Site name	**Shooting Stand, Hardcastle Moor**
NGR	SE 10538 65812
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Three-sided rectangular drystone shooting stand with an embanked south-eastern side, partially sunken, turf-topped, 7.5m x 4.5m x 1.1m high. One of a line of shooting stands (OA North Sites ***55-63***).
Vulnerability	Medium

Site number	**64**
Site name	**Cairn, Hardcastle Moor**
NGR	SE 09882 66067
Site type	Cairn
Period	Unknown
Sources	Walkover Survey
Description	A small cairn measuring 3m in diameter by 0.4-0.5m high.
Vulnerability	High

Site number	**65**
Site name	**Boundary Bank, Peat House Hill, Hardcastle Moor**
NGR	SE 10068 66213
Site type	Boundary Bank and Cairn
Period	Post-medieval
Sources	Walkover Survey
Description	Stone-constructed field boundary bank/wall foundation orientated roughly north-north-east/south-south-west. It measures approximately 78m long by 1m wide and 0.3m high. It has a seemingly contemporary cairn adjacent to it that measures 7m x 4.5m x 0.75m high.
Vulnerability	Medium

Site number	**66**
Site name	**Trackway, Cranberry Gill, Hardcastle Moor**
NGR	SE 09720 66250
Site type	Trackway
Period	Post-medieval
Sources	Walkover Survey, Modern OS map
Description	A well-constructed sinuous trackway running east/west upslope along Cranberry Gill. It is embanked on either side and measures 525m long by up to 3m wide.
Vulnerability	High

Site number	**67**
Site name	**Dam, Snotty Bess Well, Hardcastle Moor**
NGR	SE 09893 66387
SM	30924
NYCCHER	MNY5894
Site type	Dam
Period	Post-medieval to Modern
HER No	26564
Sources	Walkover Survey, HER/SMR, Gill 1998, Modern OS map and 1st Edition OS map
Description	MNY5894 fed from Cranberry Gill & Snotty Bess Well. Presumably supplied the water for the Low Stoney Grooves wheels. Still survives in good condition (MNY5894). The water [for the Stoney Grooves/Merryfield mine] is likely to have been topped up from a more substantial reservoir, the dam of which is also included in the scheduling within a

separate area of protection, situated 150m to the south on the Cranberry Gill. This dam consists of an earthen core with a substantial external stone wall (Part of SM 30924). OA North Field Visit 2012: The site consists of a turf-covered dam containing a 60m square area of standing water with an external drystone retaining wall that stands to full height for most of length with limited decay. It is *c.*7m high above the water outfall and has an inward facing arc to resist the water pressure. It is depicted on both the 1st Edition and Modern OS mapping.

Vulnerability Medium

Site number **68**
Site name **Shieling, Hardcastle Moor**
NGR SE 09396 66222
Site type Shieling and bank
Period Late Medieval to Post-medieval
Sources Walkover Survey
Description A possible shieling site located on the south side of Cranberry Gill. It consists of a turf-banked two-celled rectangular structure with an irregular open pound to the east. It is a small structure in a well drained and level area of recent burning. It measures 5.5m x 2.5m x 0.1m high.
Vulnerability High

Site number **69**
Site name **Shieling, Hardcastle Moor**
NGR SE 09391 66231
Site type Shieling
Period Late Medieval to Post-medieval
Sources Walkover Survey
Description A possible shieling site located on the south side of Cranberry Gill. It consists of a sunken area with turf banks on two sides. It is a small structure in a well drained and level area of recent burning. It measures 2.5m square by 0.1m high.
Vulnerability High

Site number **70**
Site name **Clearance Cairn, Sunset, Hardcastle Moor**
NGR SE 09200 66002
Site type Clearance Cairn
Period Post-medieval
HER No 36487
Sources Walkover Survey
Description A small circular clearance cairn, associated with an obvious natural drainage channel. It measures 2.5m in diameter by 0.4m high.
Vulnerability Medium

Site number **71**
Site name **Shooting Stand, Round Hill, Hardcastle Moor**
NGR SE 09460 65354
Site type Shooting Stand
Period Industrial Period to Modern
Sources Walkover Survey
Description Badly collapsed drystone shooting stand, probably a three-sided rectangle originally, 5m x 3.5m x 0.75m high.
Vulnerability Low

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Site number	**72**
Site name	**Shooting Stand, Round Hill, Hardcastle Moor**
NGR	SE 09420 65365
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	A possible badly denuded turf shooting stand, 3m x 2.5m x 0.6m high.
Vulnerability	Low

Site number	**73**
Site name	**Peat Cutting, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09562 65201
Site type	Peat Cutting
Period	Post-medieval
Sources	Walkover Survey
Description	A small sub-rectangular area of peat cutting. It measures 35m by 26m and 0.8m deep.
Vulnerability	Low

Site number	**74**
Site name	**Shelter, Fat Ewe Grain Beck, Hardcastle Moor**
NGR	SE 09809 65073
Site type	Shelter
Period	Unknown
Sources	Walkover Survey
Description	Natural stone shelter located overlooking the north bank of Fat Ewe Grain Beck. The site is natural in form but was probably anthropogenically exploited. No lithic artefacts were retrieved from the site.
Vulnerability	Low

Site number	**75**
Site name	**Shooting Stand, Cranberry Gill, Hardcastle Moor**
NGR	SE 09611 66294
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	Collapsed V-shaped drystone shooting stand constructed on the north side of a sinuous trackway (OA North Site ***66***).
Vulnerability	Low

Site number	**76**
Site name	**Peat Cutting, Cranberry Moss, Hardcastle Moor**
NGR	SE 09414 66387
Site type	Peat Cutting
Period	Post-medieval
Sources	Walkover Survey, 1st Edition OS map
Description	Large elongated area of peat cutting depicted on the 1st Edition OS mapping at Cranberry Moss. The western end is well-defined with straight cut sides up to 1m deep. Overall the area measures 440m by 105m.
Vulnerability	Medium

Site number	**77**
Site name	**Leat, Cranberry Moss, Hardcastle Moor**
NGR	SE 09499 66488
Site type	Leat

Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map and 1st Edition OS map
Description	A linear drainage leat orientated roughly east-north-east/west-south-west then turning north-east downslope and running towards a reservoir (OA North Site ***67***); it was used by Stoney Grooves/Merryfield mine complex. The leat is depicted as a linear feature on both modern and 1st Edition OS mapping and was recorded as a grip in the GIS. The feature consists of a relatively wide gully measuring approximately 532m long by up to 6m wide and 1 -1.5m deep in places.
Vulnerability	High

Site number	**78**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09102 66964
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, upcast ring of spoil with a central hollow, partially grassed, 14m x 15m x 2.5m-3m on downslope side. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Medium

Site number	**79**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09126 66959
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps and a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, ring of grassed upcast spoil with a central hollow, 15m x 13m x 2.5m-3m. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Medium

Site number	**80**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09152 66947
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, ring of grassed upcast spoil with a central hollow, 18m x 15m x 2m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Medium

Site number	**81**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09169 66947
NYCCHER	MNY5882

Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps and a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, ring of upcast spoil has been partially levelled on the north and east sides. It consists of a spread of mostly gravel/crushed rock with the undisturbed part grassed over. It measures 15m x 10m x 0.7m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Medium

Site number	**82**
Site name	**Spoil Heap, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09206 66931
NYCCHER	MNY5882
Site type	Spoil Heap
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, ring of upcast spoil has been partially levelled on the north and east sides. It consists of a spread of mostly gravel/crushed rock with the undisturbed part grassed over. It measures 15m x 10m x 0.7m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Medium

Site number	**83**
Site name	**Spoil Heap, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09233 66909
NYCCHER	MNY5882
Site type	Spoil Heap
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Horseshoe-shaped dump of spoil, consisting mostly of crushed stone. It measures 20m x 10m x 1m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Medium

Site number	**84**
Site name	**Trial Trench, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09263 66847
NYCCHER	MNY5882
Site type	Trial Trench
Period	Post-medieval to Modern
Sources	Walkover Survey, HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Possible trial level trench consisting of a linear cutting with upcast spoil material to either side. It measures 23m x 7m x 1m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Low

Site number	**85**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**

NGR	SE 09285 66855
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, ring of upcast spoil that has been eroded on the north-east side. It measures 10m x 9m x 1m-1.5m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Low

Site number	**86**
Site name	**Mine Workings, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09319 66841
NYCCHER	MNY5882
Site type	Mine
Period	Post-medieval to Modern
Sources	Walkover Survey, HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: A more extensive area of shallow undulating hushing and/or spoil heaps located adjacent to the north bank of a drainage gully. It consists of an area measuring 95m by 33m. A series of parallel curvilinear spoil banks lead east/west towards the gill and concentrations of small spoil heaps and trial workings occupy the area. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Low

Site number	**87**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09273 66873
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: A large mine shaft consisting of a C-shaped grassed ring of upcast spoil that measures 25m in diameter by 2-3m high. There is an associated linear spoil on the north side that is 18m x 4m x 1m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Low

Site number	**88**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09321 66870
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Large sub-circular mine shaft, consisting of a ring of grassed upcast spoil with a very deep internal hole (3-4m deep). It measures 18m x 17m x 1m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Low

Site number	**89**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09390 66843
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, consisting of an elongated ring of grassed upcast spoil with a central hollow. It measures 18m x 9m x 1.5m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Low

Site number	**90**
Site name	**Dam, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09391 66815
Site type	Dam
Period	Post-medieval to Modern
Sources	Walkover Survey, 1st Edition OS map
Description	The remains of a small oval breached dam located on the south side of a drainage gully and to the west and upslope of the main mine workings. It consists of discontinuous sections of a curvilinear turf-covered earth and stone-banked dam with partially collapsed externally revetted drystone walls. It was depicted on the 1st edition OS mapping. It measures 33m x 17m x 1.5m high. It may have been used for hushing the steep gully where it ran to the north-east of the structure or, alternatively, fed the main mine workings. It is part of Stoney Grooves/Merryfield Mine complex.
Vulnerability	Medium

Site number	**91**
Site name	**Shaft Mound, Stoney Grooves Lead Mine, Hardcastle Moor**
NGR	SE 09424 66787
NYCCHER	MNY5882
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, Modern OS map , HER/SMR
Description	Post-medieval lead mines consisting of shafts with spoil heaps with a possible area of quarrying, visible as earthworks on air photographs (MNY5882). OA North Field Visit 2012: Mine shaft, consisting of a ring of partially grassed upcast spoil with a central hollow. It measures 7m in diameter x 0.6m high. One of a line of shafts/workings associated with Stoney Grooves vein (OA North Sites ***78-89*** and ***91***).
Vulnerability	Low

Site number	**92**
Site name	**Shaft Mounds, Burnt Hill, Hardcastle Moor**
NGR	SE 08803 67091
NYCCHER	MNY5880
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, HER/SMR
Description	Post-medieval lead workings including shafts and spoil heaps visible as earthworks on air photographs (MNY5880). OA North Field Visit 2012: A conjoined pair of circular shaped shafts, each consisting of a grassed ring of upcast spoil with a central hollow. Overall it measures 21m x 11m x 1.75m high. One of a line of shafts/workings associated with Stoney Grooves/Merryfield mine (OA North Sites ***92-96***).
Vulnerability	Low

Site number	**93**
Site name	**Shaft Mound, Burnt Hill, Hardcastle Moor**
NGR	SE 08813 67123
NYCCHER	MNY5880
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, HER/SMR
Description	Post-medieval lead workings including shafts and spoil heaps visible as earthworks on air photographs (MNY5880). OA North Field Visit 2012: Mine shaft, consisting of a ring of grassed upcast spoil with a shallow central hollow. It measures 8m in diameter x 0.5-0.75m high. One of a line of shafts/workings associated with Stoney Grooves/Merryfield mine (OA North Sites ***92-96***).
Vulnerability	Low

Site number	**94**
Site name	**Shaft Mound, Burnt Hill, Hardcastle Moor**
NGR	SE 08827 67140
NYCCHER	MNY5880
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, HER/SMR
Description	Post-medieval lead workings including shafts and spoil heaps visible as earthworks on air photographs (MNY5880). OA North Field Visit 2012: Mine shaft, consisting of a ring of grassed upcast spoil with a central hollow with a slight bank of spoil linking it to other shafts (OA North Sites ***93*** and ***94***). It measures 15m x 12m x 1.2m high. One of a line of shafts/workings associated with Stoney Grooves/Merryfield mine (OA North Sites ***92-96***).
Vulnerability	Low

Site number	**95**
Site name	**Shaft Mound, Burnt Hill, Hardcastle Moor**
NGR	SE 08853 67181
NYCCHER	MNY5880
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, HER/SMR
Description	Post-medieval lead workings including shafts and spoil heaps visible as earthworks on air photographs (MNY5880). OA North Field Visit 2012: Mine shaft, consisting of a ring of grassed upcast spoil with a central hollow. It measures 14m x 12m x 1.5m high. One of a line of shafts/workings associated with Stoney Grooves/Merryfield mine (OA North Sites ***92-96***).
Vulnerability	Low

Site number	**96**
Site name	**Shaft Mound, Burnt Hill, Hardcastle Moor**
NGR	SE 08900 67208
NYCCHER	MNY5880
Site type	Shaft Mound
Period	Post-medieval to Modern
Sources	Walkover Survey, HER/SMR
Description	Post-medieval lead workings including shafts and spoil heaps visible as earthworks on air photographs (MNY5880). OA North Field Visit 2012: Mine shaft, consisting of a ring of grassed upcast spoil with a central hollow. It measures 14m x 13m x 1.5m high. One of a line of shafts/workings associated with Stoney Grooves/Merryfield mine (OA North Sites ***92-96***).

Vulnerability Low

Site number **97**
Site name **Boundary Stone, North Wig Stones Allotment, Hardcastle Moor**
NGR SE 08202 67137
Site type Boundary Stone
Period Post-medieval
Sources Walkover Survey, Modern OS map
Description A slab boundary stone measuring roughly 0.8m high by 0.4m wide with a rounded top. It is inscribed 'E R B' on the east side and 'J Y B' on the west side.
Vulnerability Low

Site number **98**
Site name **Boundary Stone, Grey Crag, Hardcastle Moor**
NGR SE 08791 66873
Site type Boundary Stone
Period Post-medieval
Sources Walkover Survey, 1st Edition OS map
Description A large earthfast boulder at Grey crag that was used as boundary marker stone. The stone is inscribed on several sides, with 'J Y R' on the west side, 'J Y A' an '8' and two 'X' on the south side, and 'J Y B' on the east side.
Vulnerability Low

Site number **99**
Site name **Boundary Stone, Sunset, Hardcastle Moor**
NGR SE 08968 65910
Site type Boundary Stone
Period Post-medieval
Sources Walkover Survey
Description A small slab boundary stone located on top of a linear boundary bank. It measures roughly 0.7m high by 0.3m wide with a rounded top. It is inscribed 'J Y A' on the west side and 'J Y B' on the east side.
Vulnerability Low

Site number **100**
Site name **Peat Cutting, Caygill Moss, Hardcastle Moor**
NGR SE 09113 65553
Site type Peat Cutting
Period Post-medieval
Sources Walkover Survey, 1st Edition OS map
Description An extensive area of peat cutting located on Caygill Moss that is named as Jack Hole Peat Pits. It is depicted on the 1st Edition OS mapping and it is on the eastern side of an enclosure boundary. Overall it measures approximately 420m by 190m and the northern end has well-defined straight-sided edges surviving up to 1m deep.
Vulnerability High

Site number **101**
Site name **Shaft Mound, Jack Hole Flat, Hardcastle Moor**
NGR SE 08242 63957
Site type Shaft Mound
Period Industrial Period to Modern
Sources Walkover Survey, Modern OS map
Description A circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 8m in diameter by 0.4m high. It is part of the North Rakes mine.
Vulnerability Low

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Site number	**102**
Site name	**Shaft Mound, Jack Hole Flat, Hardcastle Moor**
NGR	SE 08259 63959
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	A circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 9m in diameter by 1m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**103**
Site name	**Shaft Mound, Jack Hole Flat, Hardcastle Moor**
NGR	SE 08417 63955
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	A circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 9m in diameter by 0.8m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**104**
Site name	**Shooting Stand, Jack Hole Flat, Hardcastle Moor**
NGR	SE 08904 64040
Site type	Shooting Stand or Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	Either a denuded turf and stone-constructed shooting stand or a horseshoe-shaped shaft mound. It measures 5m x 3m x 0.7m high.
Vulnerability	Medium

Site number	**105**
Site name	**Shaft Mound, Jack Hole Flat, Hardcastle Moor**
NGR	SE 08983 64005
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Horseshoe-shaped shaft consisting of a ring of upcast spoil with a central depression. It measures 8m x 7m x 0.8m high. It is part of the North Rakes mine.
Vulnerability	Medium

Site number	**106**
Site name	**Shaft Mounds, Jack Hole Flat, Hardcastle Moor**
NGR	SE 08998 63975
Site type	Shaft Mounds
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, Modern OS map
Description	A closely related pair of circular shafts each consisting of a ring of grassed upcast spoil with a central depression. Overall it measures 17m x 8m x 0.8m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**107**
Site name	**Shaft Mound, Jack Hole Flat, Hardcastle Moor**

NGR	SE 08964 63945
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Horseshoe-shaped shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 7m in diameter by 1m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**108**
Site name	**Shaft Mounds, North Side Allotment, Hardcastle Moor**
NGR	SE 09027 63973
Site type	Shaft Mounds
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, Modern OS map
Description	A closely related pair of circular shafts each consisting of a ring of grassed upcast spoil with a central depression. Overall it measures 22m x 14m x 2.5m high. It is part of the North Rakes mine complex.
Vulnerability	Low

Site number	**109**
Site name	**Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR	SE 09036 64025
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, Modern OS map
Description	Horseshoe-shaped shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 9m in diameter by 1.2m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**110**
Site name	**Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR	SE 09029 64039
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Horseshoe-shaped shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 8m in diameter by 0.6m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**111**
Site name	**Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR	SE 09053 64040
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, Modern OS map
Description	A large shaft consisting of a central depression flanked by two upcast spoil heaps. Overall it measures 16m x 15m x 2m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**112**
Site name	**Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR	SE 09058 64016
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map

Description A circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 11m in diameter by 0.5m high. It is part of the North Rakes mine.
Vulnerability Low

Site number **113**
Site name **Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR SE 09085 64086
Site type Shaft Mound
Period Industrial Period to Modern
Sources Walkover Survey, Gill 1998, Modern OS map
Description Circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 11m in diameter by 2m high. One of a line of shafts associated with a cross cut vein at North Rakes mine (OA North Sites ***113-116***).
Vulnerability Medium

Site number **114**
Site name **Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR SE 09088 64054
Site type Shaft Mound
Period Industrial Period to Modern
Sources Walkover Survey, Gill 1998, Modern OS map
Description Circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 10m x 8m x 1.3m high. One of a line of shafts associated with a cross cut vein at North Rakes mine (OA North Sites ***113-116***).
Vulnerability Low

Site number **115**
Site name **Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR SE 09089 64028
Site type Shaft Mound
Period Industrial Period to Modern
Sources Walkover Survey, Gill 1998, Modern OS map
Description Circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 10m x 9m x 1.6m high. One of a line of shafts associated with a cross cut vein at North Rakes mine (OA North Sites ***113-116***).
Vulnerability Low

Site number **116**
Site name **Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR SE 09089 63999
Site type Shaft Mound
Period Industrial Period to Modern
Sources Walkover Survey, Gill 1998, Modern OS map
Description Circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 9m x 8m x 1.2m high and has a C-shaped spoil heap on the south-west side. One of a line of shafts associated with a cross cut vein at North Rakes mine (OA North Sites ***113-116***).
Vulnerability Low

Site number **117**
Site name **Shaft Mound, North Side Allotment, Hardcastle Moor**
NGR SE 09117 63993
Site type Shaft Mound
Period Industrial Period to Modern
Sources Walkover Survey, Gill 1998, Modern OS map

Description	Sub-circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 13m x 8m x 1m high. There is an adjacent spoil heap on the south-east side. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**118**
Site name	**Mine Workings, North Rakes, Hardcastle Moor**
NGR	SE 09148 64009
Site type	Mine
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, Modern OS map
Description	A large agglomeration of shaft mounds/working and spoil heaps in an area of North Rake mine marked as 'Simpson's/West Shaft' and 'Williams Shafts' on a mine plan. There are at least eight identified shafts of varying size and shape with numerous spoil heaps covering an area of 65m square and located on the west side of a large lead rake/hush (OA North Site ***119***).
Vulnerability	Low

Site number	**119**
Site name	**Hush, North Rakes, Hardcastle Moor**
NGR	SE 09240 64007
Site type	Hush
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, Modern OS map and 1st Edition OS map
Description	A large linear cutting orientated east/west that was depicted as 'Wm. Bell & Co.' on a mine plan of North Rakes mine. The channel may have been formed by hushing of a lead vein or is an excavated rake cut into an area of shake holes. The feature measures 137m long before turning north-west at the west end for a further 52m. It is up to 8m wide by over 4m deep. At the north-west end the feature broadens into a shallow fan of material and it would have flowed into a possible dam basin (OA North Site ***143***).
Vulnerability	Low

Site number	**120**
Site name	**Shaft Mound, North Rakes, Hardcastle Moor**
NGR	SE 09200 64012
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey, 1st Edition OS map
Description	A circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 12m in diameter by 1.5m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**121**
Site name	**Shaft Mound, North Rakes, Hardcastle Moor**
NGR	SE 09213 64057
Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	Circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 9m in diameter by 1m high. It is part of the North Rakes mine.
Vulnerability	Medium

Site number	**122**
Site name	**Shaft Mound, North Rakes, Hardcastle Moor**
NGR	SE 09233 64021

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Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	Horseshoe-shaped shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 10m x 8m x 1m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**123**
Site name	**Shaft Mounds, North Rakes, Hardcastle Moor**
NGR	SE 09251 64023
Site type	Shaft Mounds
Period	Industrial Period to Modern
Sources	Walkover Survey, 1st Edition OS map
Description	A conjoined pair of circular shafts each consisting of a ring of grassed upcast spoil with a central depression. Overall it measures 21.5m x 12m x 1.2m high. It is part of the North Rakes mine.
Vulnerability	Low

Site number	**124**
Site name	**Spoil Heap, North Rakes, Hardcastle Moor**
NGR	SE 09290 64042
Site type	Spoil Heap
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998
Description	An elongated linear north-west/south-east orientated spoil heap, overall measuring 33m x 8m x 1.5m high. The site was depicted as the location of 'Harris Dressing Shed' on a plan of North Rakes mine.
Vulnerability	Low

Site number	**125**
Site name	**Spoil Heap, North Rakes, Hardcastle Moor**
NGR	SE 09332 64037
Site type	Spoil Heap
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998
Description	Circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 8m in diameter by 1m high. It has a long thin spoil heap running 20m to the south-east. It is part of the North Rakes mine.
Vulnerability	Medium

Site number	**126**
Site name	**Spoil Heap, North Rakes, Hardcastle Moor**
NGR	SE 09366 64027
Site type	Spoil Heap
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, 1st Edition OS map
Description	An elongated line of three parallel south-west/north-east orientated spoil heaps, overall measuring 32m x 16m x 1.5m high. It was depicted as 'North Rake Middle Shaft' on a plan of North Rakes mine. There are possible foundations of a rectangular structure built into the top of the spoil.
Vulnerability	Low

Site number	**127**
Site name	**Shaft Mound, North Rakes, Hardcastle Moor**
NGR	SE 09318 64087

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Site type	Shaft Mound
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	Circular shaft consisting of a ring of grassed upcast spoil with a central depression. It measures 15m in diameter by 1m high. It is part of the North Rakes mine.
Vulnerability	High

Site number	**128**
Site name	**Dam, North Rakes, Hardcastle Moor**
NGR	SE 09361 64075
Site type	Dam
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, 1st Edition OS map
Description	A long linear south-south-west/north-north-east orientated earth and stone-constructed bank. It measures 42m x 4.5m x 0.75m high. It is part of a dam depicted on the 1st edition OS mapping and marked on a plan of North Rakes mine.
Vulnerability	High

Site number	**129**
Site name	**Dam, North Side Allotment, Hardcastle Moor**
NGR	SE 09554 64233
Site type	Dam
Period	Industrial Period to Modern
Sources	Walkover Survey
Description	A possible rectangular dam or area of peat cutting located upstream of North Rakes mine. Overall it measures 89m x 34m x 1.5m deep. The dam would have originally fed a lower dam (OA North Site ***143***) via a drainage gully.
Vulnerability	Medium

Site number	**130**
Site name	**Peat Cutting, Round Hill, Hardcastle Moor**
NGR	SE 09645 65117
Site type	Peat Cutting
Period	Post-medieval
Sources	Walkover Survey
Description	A small rectangular area of peat cutting with a very pronounced right-angled corner. It measures 18m x 12m x 0.75m deep.
Vulnerability	Medium

Site number	**131**
Site name	**Clearance Cairn, Round Hill, Hardcastle Moor**
NGR	SE 09581 65151
Site type	Clearance Cairn
Period	Unknown
Sources	Walkover Survey
Description	A small heather-covered clearance cairn. It measures 4m in diameter by 0.6m high
Vulnerability	Medium

Site number	**132**
Site name	**Peat Cutting, Round Hill, Hardcastle Moor**
NGR	SE 09648 65446
Site type	Peat Cutting
Period	Post-medieval
Sources	Walkover Survey

Description	Peat cutting, three distinct cuts and small banks where cut peat has been left to dry, 24m x 14m x 0.5m.
Vulnerability	Medium

Site number	**133**
Site name	**Shooting Stand, Round Hill, Hardcastle Moor**
NGR	SE 09471 65356
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Collapsed drystone shooting stand, rectangular, 4m x 4m x 0.6m.
Vulnerability	Low

Site number	**134**
Site name	**Peat Cutting, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09362 65134
Site type	Peat Cutting
Period	Post-medieval
Sources	Walkover Survey
Description	A relatively large sub-rectangular area of peat cutting located on the north side of Franky Hole Gill Head. It measures 50m x 35m x 0.5m deep.
Vulnerability	Medium

Site number	**135**
Site name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09405 65094
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, partly sunken turf-topped rectangle, measuring 3m x 2.5m x 1.2m high. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Low

Site number	**136**
Site name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09353 65106
Site type	Shooting Stand
Period	Modern
Sources	Walkover Survey, Modern OS map
Description	A concrete shooting stand, turf-covered sunken concrete slabs, measuring 2m square by 1.2m high. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Medium

Site number	**137**
Site name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09298 65116
Site type	Shooting Stand
Period	Modern
Sources	Walkover Survey, Modern OS map
Description	Concrete shooting stand, turf-covered sunken concrete slabs, measuring 2m square by 1.2m high with drystone steps down into it from the south side. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Medium

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Site number	**138**
Site name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09217 65057
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Badly denuded drystone shooting stand located on the edge of a large grip (the grip has been 'bridged' to provide access to it). It is part sunken and measures 3m x 2.5m x 0.1m high.
Vulnerability	Low

Site number	**139**
Site name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09460 65082
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone shooting stand, turf-covered and partly sunken and embanked, measuring 6m x 5m x 1.2m high. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Low

Site number	**140**
Site name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09511 65070
Site type	Shooting Stand
Period	Modern
Sources	Walkover Survey, Modern OS map
Description	Concrete shooting stand, turf-covered sunken concrete slabs, measuring 2m square by 1.2m high with drystone steps down into it from the south side. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Low

Site number	**141**
Site name	**Shooting Stand, Franky Hole Gill Head, Hardcastle Moor**
NGR	SE 09565 65057
Site type	Shooting Stand
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	Drystone rectangular turf-covered shooting stand, measuring 3m x 2m x 1m high. One of a line of shooting stands (OA North Sites ***2-4***, ***135-137*** and ***139-141***).
Vulnerability	Medium

Site number	**142**
Site name	**Shaft Mounds, North Side Moss, Hardcastle Moor**
NGR	SE 09081 64331
Site type	Shaft Mounds
Period	Industrial Period to Modern
Sources	Walkover Survey, Modern OS map
Description	An isolated pair of circular shafts located on North Side Moss and some distance to the north of North Rakes mine. There are depicted on the Modern OS mapping. The western shaft measures 14.5m in diameter x 1m high and the east is 12m in diameter
Vulnerability	High

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Site number	**143**
Site name	**Dam, North Side Allotment, Hardcastle Moor**
NGR	SE 09172 64069
Site type	Dam
Period	Industrial Period to Modern
Sources	Walkover Survey, 1st Edition OS map
Description	A large sub-oval sunken basin area, probably a relict dam that is located immediately to the north of North Rakes mine. It is depicted containing standing water on the 1st edition OS mapping. Overall it measures 66m x 35m x 3m deep. The dam would have been fed from a large hush/rake on the south side (OA North Site ***119***), and leats running from dams higher up the moor to the north-east (OA North Sites ***129*** and ***144-146***).
Vulnerability	Medium

Site number	**144**
Site name	**Dam, North Side Moss, Hardcastle Moor**
NGR	SE 09698 64228
Site type	Dam
Period	Industrial Period to Modern
Sources	Walkover Survey, Gill 1998, 1st Edition OS map
Description	A narrow sub-rectangular dam depicted on the 1st edition OS mapping as 'North Rakes Dam' and unnamed on a map of North Rakes mine. There is very slight evidence for the structure on the ground and on aerial photographic mapping. Overall it measures approximately 105m by 27m.
Vulnerability	High

Site number	**145**
Site name	**Leat, North Side Allotment, Hardcastle Moor**
NGR	SE 09416 64138
Site type	Leat
Period	Industrial Period to Modern
Sources	Walkover Survey, 1st Edition OS map
Description	A sinuous leat running north-east/south-west downslope between two possible dams on North Side Allotment. It is depicted on the 1st edition OS mapping and as grips in the GIS. It survives as a well-defined edge to the peat that is over 515m long by up to 1m high.
Vulnerability	High

Site number	**146**
Site name	**Leats, North Side Moss, Hardcastle Moor**
NGR	SE 09131 64362
Site type	Leats
Period	Industrial Period to Modern
Sources	Walkover Survey, 1st Edition OS map, GIS
Description	A pair of parallel leats depicted on the 1st edition OS mapping and located on the west side of two dams (OA North Sites ***129*** and ***144***). Apparently the leats drain both the moor and dams towards their centre from both west and east ends then drain south-west into a natural drainage gully that feeds a possible dam further downslope (OA North Site ***143***). Overall the parallel leats measure up to 590m long. The leats were depicted as grips on the GIS mapping.
Vulnerability	High

Site number	**147**
Site name	**Peat Cutting, North Side Moss, Hardcastle Moor**
NGR	SE 09669 64415
Site type	Peat Cutting

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Period	Post-medieval
Sources	Walkover Survey, 1st Edition OS map
Description	A relatively large sub-oval peat cutting, that is part of the 'North Side Peat Pits' depicted on the 1st edition OS mapping. The edges have partially been identified as grips on the GIS mapping. Overall it measures 145m x 50m with well-defined straight-sided edges on the north side that is up to 1.5m deep.
Vulnerability	High

Site number	**148**
Site name	**Peat Cutting, London, Hardcastle Moor**
NGR	SE 09692 64749
Site type	Peat Cutting
Period	Post-medieval
Sources	Walkover Survey, 1st Edition OS map
Description	A very large sub-rectangular area of peat cutting located on the north side of an enclosure boundary and depicted on the 1st edition mapping as 'London'. The overall area measures 455m by 310m and it has a well-defined western edge up to 1m deep. It is bounded to the east be Round Hill Gill and contains extensive areas of eroded bare peat islands.
Vulnerability	High

Site number	**149**
Site name	**Hut, Hardcastle Moor**
NGR	SE 10615 65363
Site type	Hut
Period	Industrial Period to Modern
Sources	Walkover Survey, 1st Edition OS map
Description	A drystone shooting shelter marked as 'Little John' on the 1st Edition OS mapping. The site could not be located during the present survey.
Vulnerability	Low

Site number	**150**
Site name	**Cairn, Hardcastle Moor**
NGR	SE 10865 65905
NYCCHER	MNY22518
Site type	Cairn
Period	Unknown
Sources	Walkover Survey, HER/SMR, LUAU, 2000
Description	A stone cairn that is roughly circular, 4m diameter x 2m high comprised of small sandstones typically 0.2-0.4m. It is unlikely to be relate to clearance as it is constructed in a distinctive cone shape. Shown on OS 1:10,000. (MNY22518). OA North Field Visit 2012: The site could not be located.
Vulnerability	Low

Site number	**151**
Site name	**Clearance Cairn, Hardcastle Moor**
NGR	SE 10974 65796
NYCCHER	MNY22530
Site type	Clearance Cairn
Period	Unknown
Sources	Walkover Survey, HER/SMR, LUAU, 2000
Description	Two large areas of quarried sandstone. Area 1 extends over 30m x 10m, max. 1.5m high. Possible clearance cairn has tipped over a break of the north facing slope. 80% exposed stone, 20% soil bound stone. Small cairn 0.6m high at top/south end of cairn, marking ridge. Area 2 - Roughly circular area 15m diameter, max. 1m high. Larger stones than

	area 1. Stone slabs >1m x 1m x 0.3m. 90% exposed stone. Small cairn in centre 0.8m high (MNY22530). OA North Field Visit 2012: The site could not be located.
Vulnerability	High

Site number	**152**
Site name	**Flint Scatter, Jack Hole Flat, Hardcastle Moor**
NGR	SE 08228 63969
YDNPSMR	MYD4387
Site type	Flint Scatter
Period	Mesolithic to Neolithic
Sources	Walkover Survey, HER/SMR
Description	Various flakes and scrapers of flint and chert, of likely Mesolithic date, were found stratified in the infilling at the bottom of a cleft millstone erratic. Pollen analysis indicates an occupation within the first half of the Atlantic period. The boulder was indicated by Mr. G. Gill, the finder, at SE 08206398. 10 pieces out of an assemblage of 24 were illustrated and a Pollen diagram was described. Boulder shown as visible on digital imagery (MYD4387). OA North Field Visit 2012: No further finds were discovered.
Vulnerability	Low

ILLUSTRATIONS

FIGURES

PLATES

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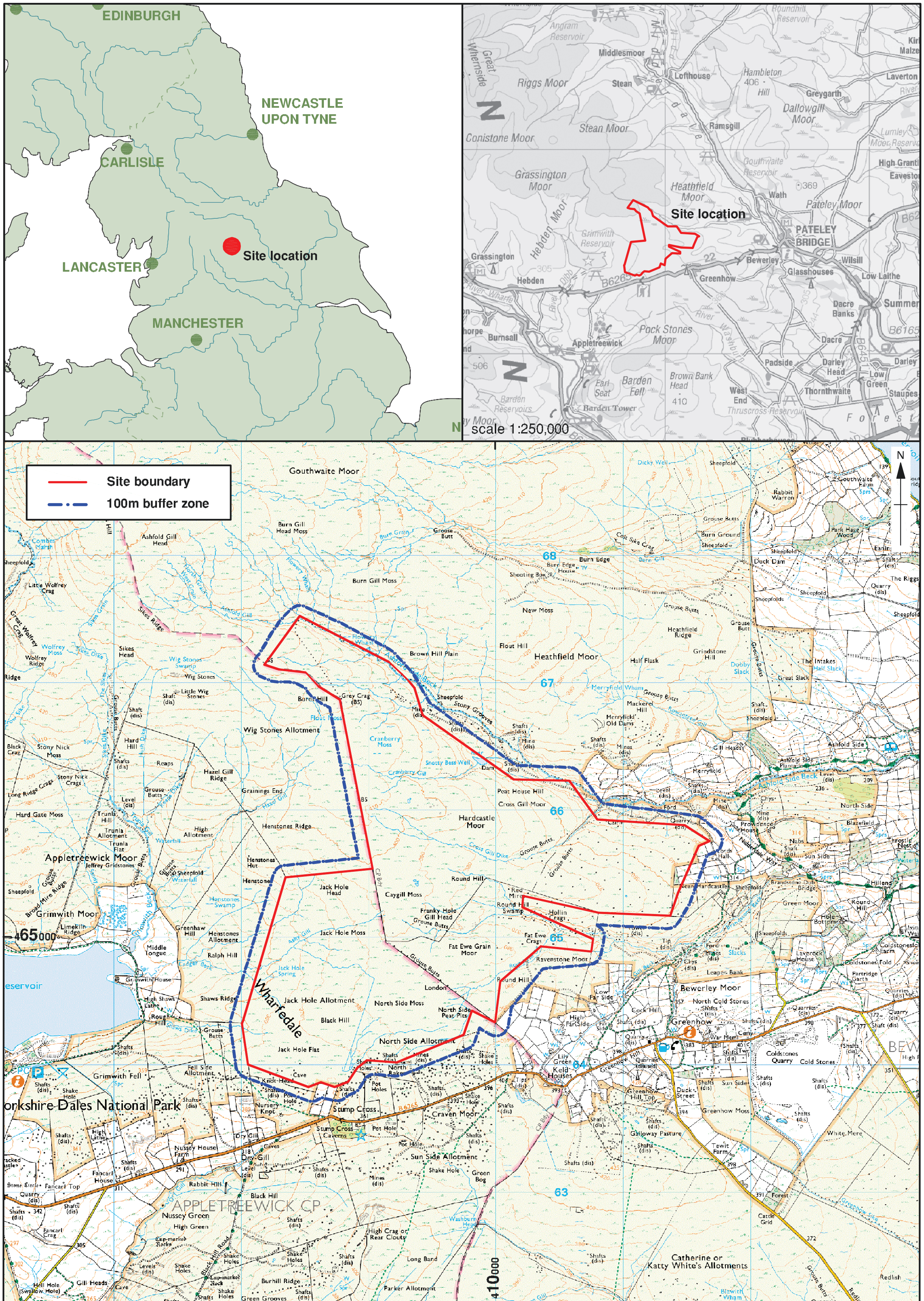

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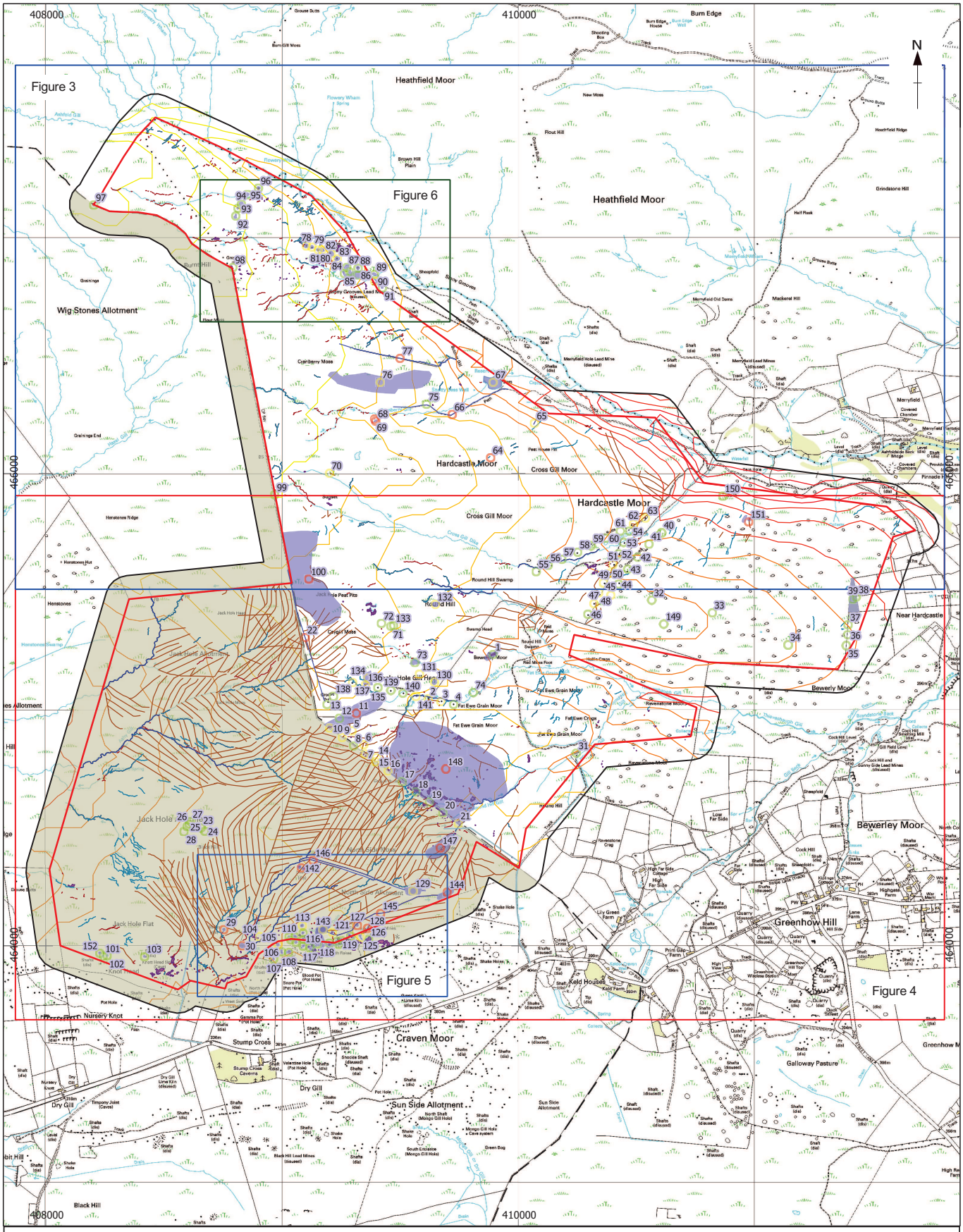
0 1 km
1:40,000 @ A4

Figure 1: Site location



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Key

Study Area with 100m buffer

Study Area

Gazetteer sites

High threat

Low threat

Medium threat

Watercourses

Gullies

10m Contours

280 - 312

312 - 344

344 - 376

376 - 408

408 - 440

Bare Peat

Haggs

Grips

National Parks

6m access route

0 0.5 1 km

1:15000 at A3

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Figure 2: Overall site map

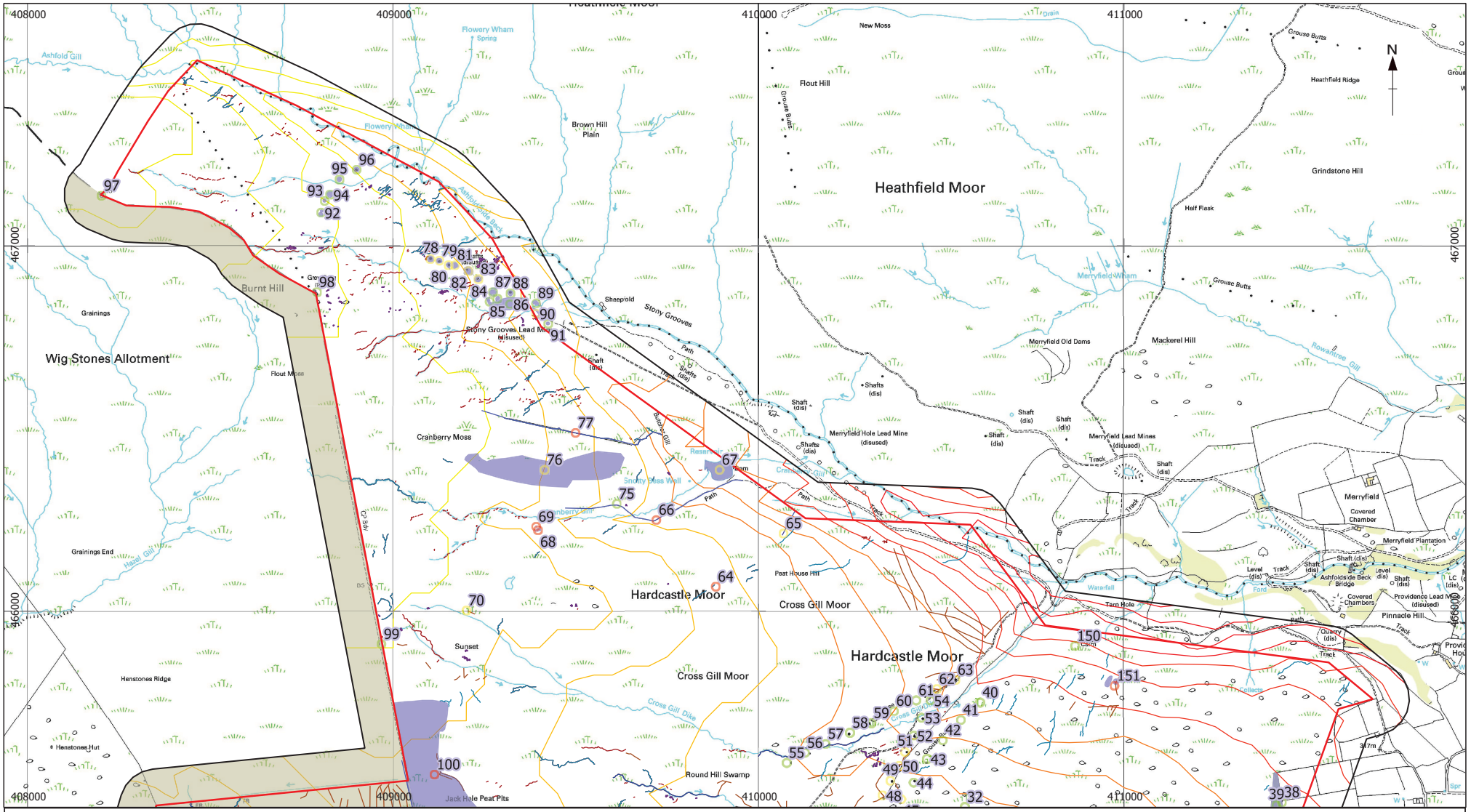
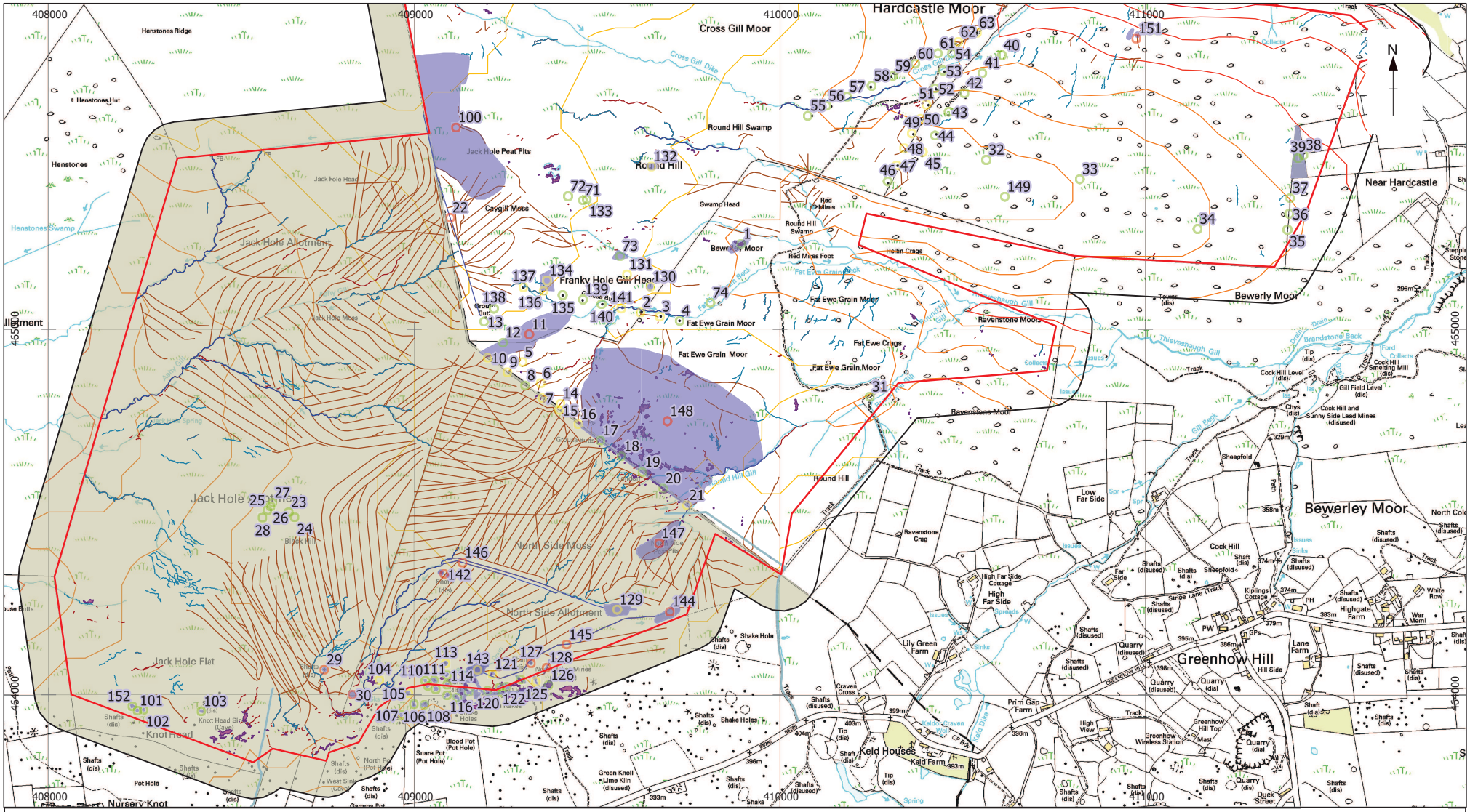


Figure 3: Gazetteer sites - Northern map



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Key

Study Area with 100m buffer

Study Area

Gazetteer sites

- High threat
- Low threat
- Medium threat

Watercourses

Gullies

10m Contours

- 280 - 312
- 312 - 344
- 344 - 376
- 376 - 408
- 408 - 440

Bare Peat

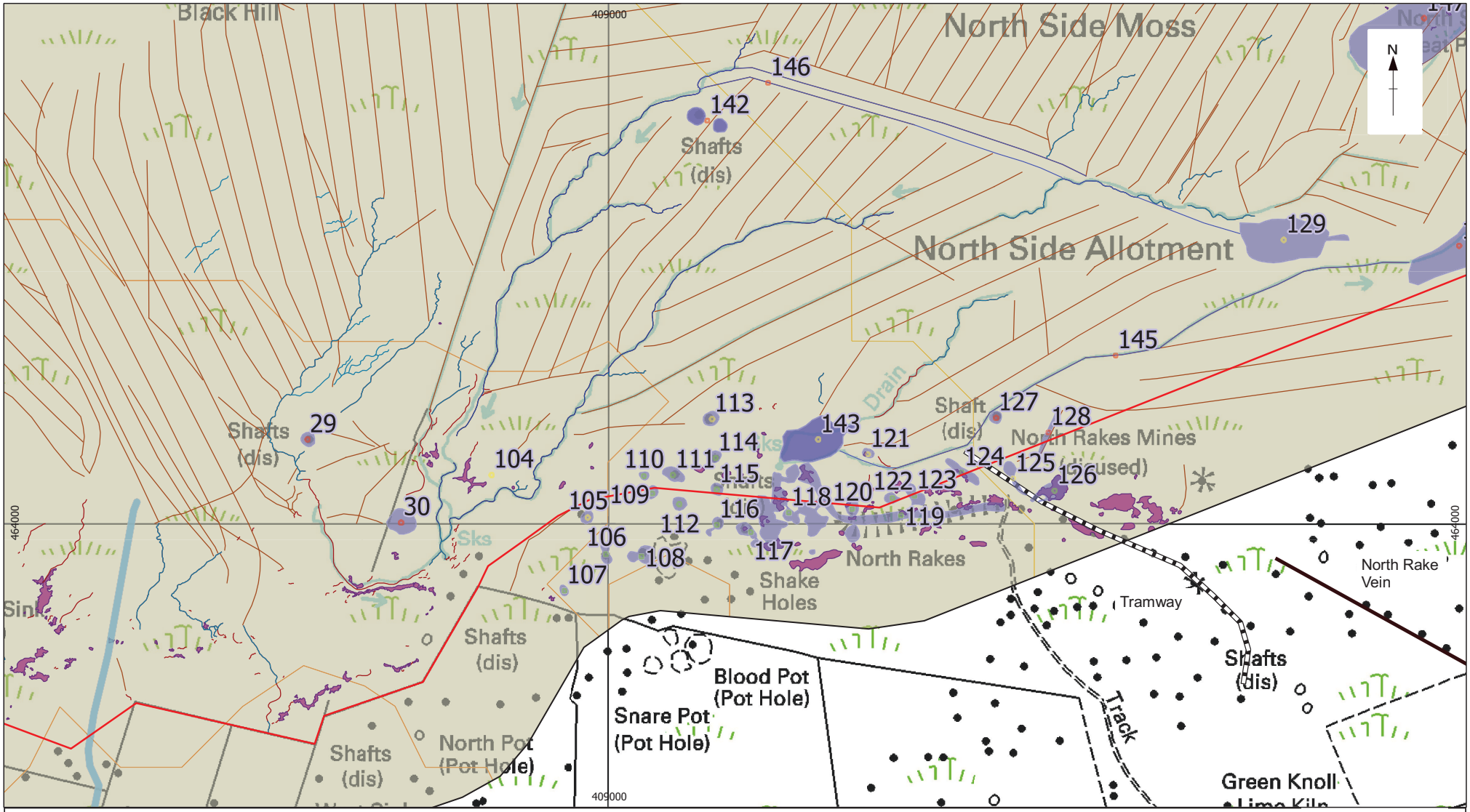
Haggs

Grips

National Parks

6m access route

Figure 4: Gazetteer sites - Southern map



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Key

Study Area with 100m buffer

Study Area

Gazetteer sites

- High threat
- Low threat
- Medium threat

Watercourses

Gullies

10m Contours

- 280 - 312
- 312 - 344
- 344 - 376
- 376 - 408
- 408 - 440

Bare Peat

Haggs

Grips

National Parks

6m access route

0 0.5 1 km

1:3,000 at A3

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Figure 5: Gazetteer sites - Southern detail

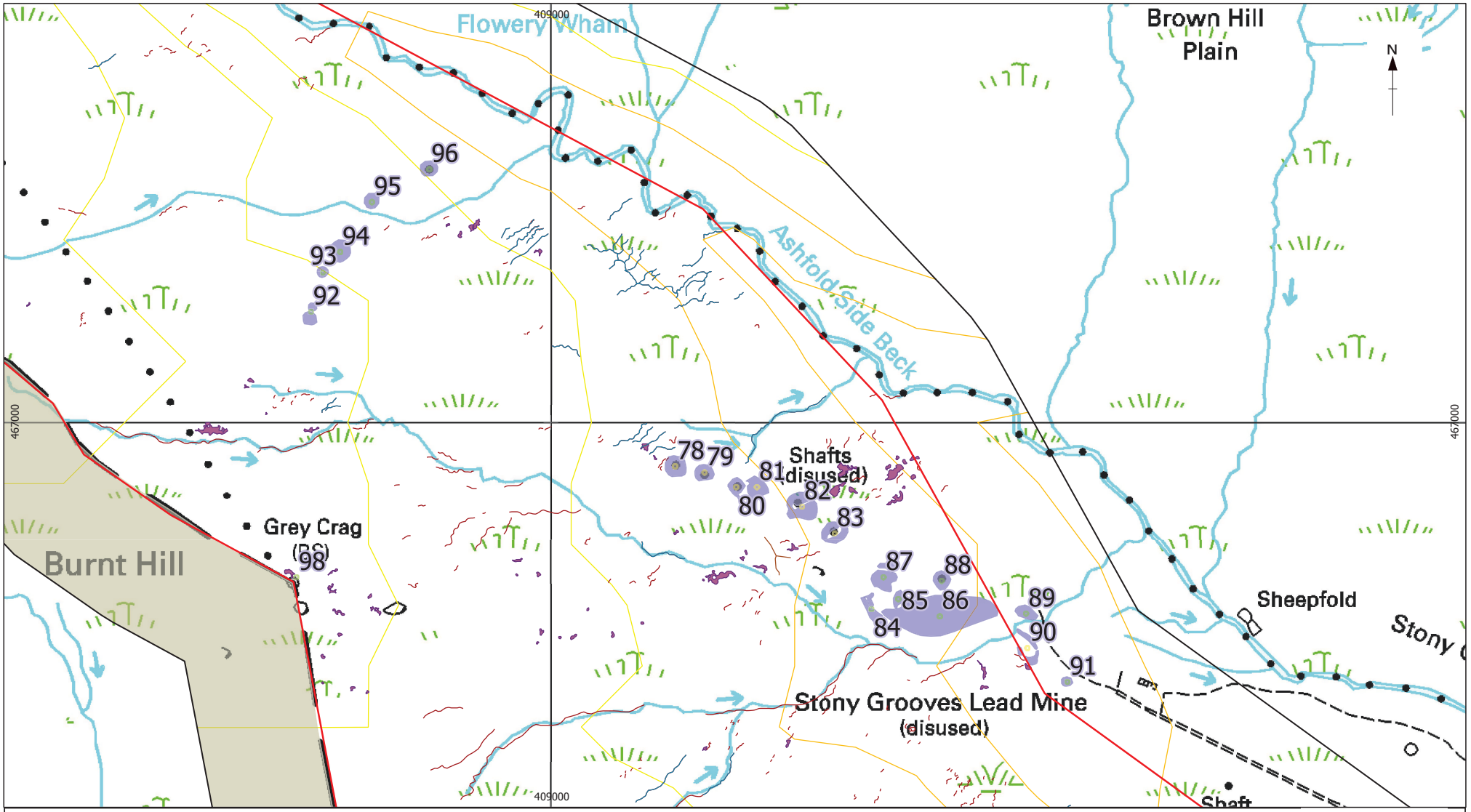

Figure 6: Gazetteer sites - Northern detail