



Altogether Archaeology
Theme 8 *'North of the Wall'*
Fieldwork module 8b
Hadrian's Wall Milecastles Project: Phase 2
Project Design



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This document has been produced in accordance with the Management of Research Projects in the Historic Environment (MoRPHE) guidelines (English Heritage, 2006).

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Cover Illustration: Milecastle 42, Hadrian's Wall, in the Northumberland National Park.

1. General Introduction

1.1 Altogether Archaeology, largely funded by the Heritage Lottery Fund, is the North Pennines AONB Partnership's community archaeology project. Some project work, including this module, is being delivered in partnership with the Northumberland National Park Authority. The project enables volunteers to undertake practical archaeological projects with appropriate professional supervision and training. As well as raising the capacity of local groups to undertake research, the project makes a genuine contribution to our understanding of the local historic environment, thus contributing to future landscape management.

1.2 Over an initial 18 month period ending in December 2011, the project attracted 400 volunteers and completed a range of fieldwork modules including survey and excavation of prehistoric, Roman, mediaeval and post-medieval sites, and the survey of complex multi-period archaeological landscapes. Details of work completed during the pilot phase can be found on the North Pennines AONB website.

1.3 The current Altogether Archaeology programme runs from September 2012 – September 2015. It involves a range of professional and academic partners, and participation is open to all. Work is arranged according to ten themes, ranging from Early Farmers to 20th-Century Industrial Archaeology. Further information, including details of how to register as a volunteer, are available on the AONB website.

1.4 As part of the Altogether Archaeology project, Northumberland National Park Authority has provided funding to enable volunteers to undertake practical archaeological projects within the National Park. The aim of the project is to provide appropriate professional supervision and training in order to build the capacity of local groups to actively research little studied or poorly understood elements of the archaeology of the National Park.

1.5 The programme of field survey proposed in this project design is being delivered as part of Altogether Archaeology, Module 8 "North of the Wall", which includes all of the fieldwork within the National Park.

1.6 This particular project is the second phase of a project to examine land north of (and surrounding) Milecastles on Hadrian's Wall, in an attempt to ascertain whether they were originally approached by roads or tracks. The milecastles are traditionally assumed to have been provided as gateways through the Wall, but some of them are located in places (for example on high crags) which could not ever have been north-south routeways. Phase 1 investigated Milecastles 29, 34 and 40 and found no definite evidence of roads approaching from the north – Phase 2 aims to test whether these results were representative by surveying Milecastles 32, 41 and 47, thereby increasing the sample size to 7.5 % of the 80 Milecastles.

2. Background

2.1 The function of the Milecastles along Hadrian's Wall is not fully understood. It is generally hypothesised that they controlled north-south traffic through the Wall – Milecastles have even been described as “fortified gateways” (Breeze and Dobson 2000: 33) – however no roads approaching them from the north have been identified. Understanding the function of the milecastles, and any roads that may have been associated with them, is critical to our understanding of the intended and actual function of Hadrian's Wall. In the original plan for Hadrian's Wall, the Milecastles appear to have offered the only routes through the wall. However, during construction of the Wall, the decision was made to add the great Wall Forts. We simply do not know how the Milecastles functioned within this revised plan.

2.2 The known Roman roads north of the Wall include the Devil's Causeway, which branches north-east from Dere Street at Bewclay to Longframlington and Berwick-upon-Tweed, which are then linked further north by a west-east route from High Rochester to Whittingham. South of the Wall are two Roman roads crossing the Tyne-Solway gap. The Stanegate starts at Corbriodge and runs west to Carlisle, and predates the Wall. The Military Way was constructed later, and runs east-west parallel with the Wall from Wallsend to Carlisle (Petts & Gerrard 2006). There does not appear to be evidence for a Roman Road directly approaching the Wall within the National Park from the north. From the south, a section of the Maiden Way appears to head towards Milecastles 46 and 47 but no intersection is known (OS Open Source Strategi Data, see Figure 1). To the east of the National Park boundary, the Roman Road referred to as the Devil's Causeway appears to be on course to meet Hadrian's Wall somewhere between Milecastles 20 and 22, but again no intersection is known.

2.3 Some Milecastles are located on high crags with a sheer drop to the north: this suggests that these Milecastles at least could not have served as portals through the Wall. Other Milecastles opened on to flat ground however we cannot determine the volume of traffic – if any – from soldiers and other travellers passing to or from the north. Welfare (2000) concluded gateways through the wall necessitated provision for crossing the ditch and through field survey identified earth causeways which may have served this purpose, though in some cases the results are inconclusive. Symonds (2005: 72) has suggested that the building schedule of Hadrian's Wall Milecastles may have prioritised the completion of Milecastles in areas where north-south transit would have been easier due to gentler topography.

2.4 Phase 1 of this project aimed to test the hypothesis that Milecastles funnelled north-south traffic through Hadrian's Wall by searching for traces of roads to the north and south of three Milecastles (29, 34 and 40) using geophysical survey techniques. The results are summarised below (DUAS 2013):

- At Milecastle 29, insubstantial evidence for a metalled surface has been identified to the south of the milecastle; this may result from near-surface limestone. Probable and possible

walls and banks have also been identified. The east wall of the Milecastle has been detected and its remains appear to be slightly curved. No structural features have been identified within the Milecastle, though there is almost certainly rubble present.

- At Milecastle 34, no evidence for a probable road or track has been identified. A large area of rubble or tumble has been identified to the north of the Milecastle; it may obscure any older archaeological features in this area. A circular structure was identified to the south of Milecastle 34.
- At Milecastle 40, no evidence for a probable road or track has been identified. However, a break in the northern bank, and a possible stone causeway across the ditch, have been detected just to the north-east. These features could be associated with an undetected track here.
- Geomagnetic and resistance anomalies relating to the local geological background, particularly the Whin Sill, have been identified.

2.5 The lack of unambiguous evidence for roads or tracks within these survey areas may indicate that such tracks were not present, or that any tracks were insubstantial dirt roads with no associated drainage ditches. The areas surveyed were small and evidence for tracks may survive outside of these areas.

2.6 It is probable that each milecastle has its own story to tell, according to its landscape context and changes in use over the centuries of occupation. The three Milecastles investigated in Phase 1 of this study cannot be considered a representative sample of the 80 Milecastles along the Wall (3.75%) or of the variety of landscape contexts in which the Milecastles are found. Therefore additional survey of a further three Milecastles in different landscape contexts is proposed, to increase the sample size to 7.5%.

2.7 The three Milecastles selected for Phase 2 of the geophysical survey programme, for a variety of reasons, are: Milecastle 32 at Carraw, Milecastle 41 at Shield on the Wall and Milecastle 47 at Chapel House. If the results of this survey identify anomalies which may relate to roads approaching the Milecastles, a following phase of test excavation will be considered. If no such anomalies are discovered, the results shall be considered alongside those from Phase 1.

- Milecastle 32 Carraw (NY 84567099) (N7818): Milecastle 32 has been extensively robbed for building stone, and survives as a low mutilated platform with a robber trench around. An excavation in 1971 confirmed it was a long-axis milecastle. Its south wall is defined by a terrace and the north wall is overlain by the field wall on the south side of the B6318 road (HER 2014). The field to the north of Milecastle 32 has been ploughed in the past, which at least indicates there's a level approach to the milecastle from this direction. Some ridge-and-furrow is still visible. There may be evidence for a recutting of the Ditch, shown by a change in the character of the Ditch with the earthworks on the west side being much more sharply

cut than to the east. The milecastle was excavated in 1972 but no investigation took place north of the gate (Binns 1972 in Welfare 2000: 21).

- Milecastle 41 Shield-on-the-Wall (Melkridge) (N6461): Welfare (2000: 22) describes this as a “crag” milecastle. It has been crossed by a field wall that follows Hadrian’s Wall, and another meets it almost at right angles from the North. Although this is a crags milecastle this field boundary makes it of interest.
- Milecastle 47 Chapel House (NY64906607) (N6024): Excavated in 1935, Milecastle 47 contained traces of large barrack buildings either site of a central courtyard, with an oven in the northwest corner (HER 2014). The milecastle is approached by a “clear and obvious causeway” over a particularly deep and wide section of the Ditch (12m wide by 3.5m deep). The causeway is 18m wide but the west 13m of it may represent more recent infilling. A trackway cuts through the narrow mound of the glacis and curves down the slope to the northwest (Welfare 2000: 22).

2.8 It is important to note here that entirely negative results will still add new evidence to the discussion about the function of the Milecastles. If no evidence of roads or tracks approaching any of the Milecastles is found, such a result would suggest (though not prove) that Milecastles did not serve to funnel north-south traffic through the Wall. This would in itself be a significant contribution to our understanding of Hadrian’s Wall.

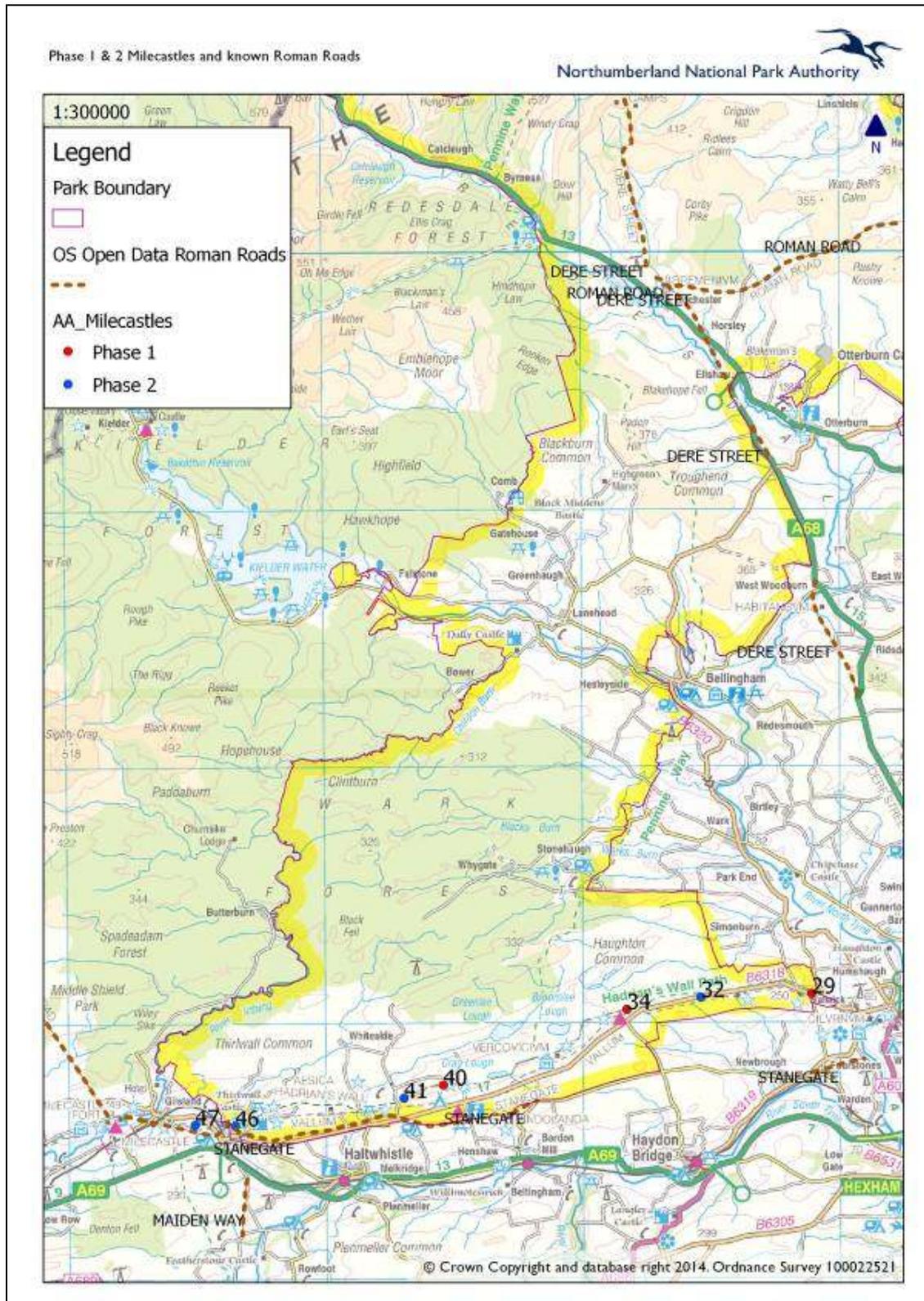


Figure 1: Map of the locations of Phase 1 and Phase 2 Milecastles, relative to known Roman Roads (from OS Open source Strategi data).

3. Research Aims and Objectives

3.1 The proposed research has the following aims and objectives: To undertake geophysical survey to identify any traces of possible tracks or roads leading to/from the selected milecastles from the north; To evaluate any identified anomalies identified in the geophysical survey to determine whether they represent roads, tracks or other features to the north of the Milecastles; To engage many volunteers in the survey and excavation of these areas as part of the Altogether Archaeology programme and provide high-quality training in archaeological skills and principles; In achieving the above, to make a genuine contribution to our understanding of Hadrian's Wall, to communicate the results to a wide audience, and where appropriate to suggest further work to build on the results of this project.

3.2 Further, the proposed work can contribute to research priorities identified in *Frontiers of Knowledge*, the Hadrian's Wall Research Framework Resource Assessment, and the accompanying Strategy and Agenda (Symonds & Mason 2009a, b). The editors note that "the precise manner in which the Wall structures interacted and the resulting frontier system functioned remains a source of considerable debate.... There is a need to look at variation along the course of the Wall.... It would, in general, be appropriate to test a range of accepted facts to ensure that we have a reliable picture of the basic frontier elements" (Symonds & Mason 2009a: 10).

3.2.1 In particular, *Frontiers...* (Symonds & Mason 2009a) notes that the extramural features of Milecastles have only rarely been investigated. The investigation proposed in this Altogether Archaeology module will assist in furthering our understanding of the Milecastles' immediate landscape context.

3.2.2 *Frontiers...* also notes that "little is known about the mechanisms of moving material into and around the frontier zone" (Symonds & Mason 2009b: 50). Clarifying whether Milecastles genuinely functioned as gates between the North and South would contribute to further understanding of how people, livestock and goods moved around the area.

3.3 The proposed research will also contribute to research priorities identified in the *Northumberland National Park Regional Research Framework* (Young et al. 2004).

3.3.1 The *Framework* (Young et al. 2004) Research Theme 3: Farming through the ages: aims to cross over period boundaries, discovering the relationships between native farmers and the Roman military. If roads are present, might they relate to the transport of agricultural produce or animal droving in one or both directions through the wall?

3.3.2 The *Framework* (Young et al. 2004) also indicates there is further work to be done in Research Theme 6: Early Medieval archaeology – modelling of the Roman/Anglo-Saxon tradition would benefit from further understanding of the presence or absence (and survival) of any Roman roads through Hadrian's Wall. Indeed, the "fate of Hadrian's Wall" is a pressing research question for this region and any further research on the area, such as is being done through the current project, will provide further data for discussion of this topic.

3.3.3 The *Framework* (Young et al. 2004)'s Research Theme 7: Boundaries in the Landscape may also link to the current research, as a possible strand of study is the consideration of the "nature of Hadrian's Wall". Determining whether the Milecastles did moderate north-south traffic would go towards establishing how "porous" the Wall was and what kind of boundary it represented at different times.

3.3.4 Also mentioned is Research Theme 8: Transport and communication (Young et al. 2004). The upkeep of the Roman road system in the Early Medieval period, specifically the fate of Roman roads, is also a research priority to which the current project will be an obvious benefit, for if any roads are identified by the geophysical survey it will raise the question of why they, unlike other Roman roads nearby, were not maintained into latter periods.

3.3.5 The North of the Wall module of Altogether Archaeology, of which the proposed research is part, is suitable for consideration under Research Theme 11 in the *Framework*: Detailed area-specific research projects. Adding to our understanding of all archaeological eras in the area north of Hadrian's Wall is a useful research undertaking.

3.4 Further, the proposed research aims to contribute to research priorities identified in the *Shared Visions: North East Regional Research Framework* (Petts & Gerrard 2006). This *Framework* notes that while the basic Roman road network layout is well understood, there remain gaps, and there may have been an as yet relatively-unknown network of minor trackways, into which any milecastle roads could fit. It also notes that geophysical survey and aerial photography have been of much use in identifying further sites.

3.3.1 The key research frames noted in *Shared Visions* (Petts & Gerrard 2006: 147) include R.ii Roads and Communication, which notes that "the Roman communication network in the region is only superficially understood and a greater understanding of its development is a priority". The research proposed herein is closely linked to the development of the earliest military infrastructure of the region, and could shed light on discussions of the function of the Stanegate (if any southwards roads are located).

3.4 Also relevant is *The Research Strategy for the Roman-Period Historic Environment* (English Heritage 2012). Theme 4.2 of the *Strategy* (English Heritage 2012: 14) identifies the need for a holistic approach to Roman period landscape; investigating the Milecastles will add to our understanding of how these structures fit in to their specific landscape context, including "pre- and post-Roman aspects of the landscape, both as features in their own right but also as elements that can influence (pre-Roman) or be influenced by (post-Roman) features".

3.5 As mentioned in 3.1, involving many volunteers and raising public awareness of the research potential of the area is a key aim of Altogether Archaeology projects. This aim meshes with Theme 5.3 of the *Research Strategy for the Roman-Period Historic Environment* (English Heritage 2012), which identifies the importance of raising awareness of and public engagement with Roman and post-Roman archaeology, and Universal Priorities of Communicating knowledge, raising

awareness and improving public understanding (Universal Priority V) and Access to Knowledge (Universal Priority VI) in *Frontiers of Knowledge* (Symonds & Mason 2009b: 31-32).

3.6 Finally, the Northumberland County Council Historic Environment Record values additional research and review of sites recorded in its archives. Exploring the area to the north of the selected Milecastles would provide additional information for the HER archives would contribute to future research in the area.

4. Business Case

4.1 This project should be undertaken now for the following reasons:

- It meets the aims of the NNPA’s partnership with the Altogether Archaeology project in providing volunteer engagement opportunities north of Hadrian’s Wall
- It has the potential to substantially increase our knowledge of the purpose of Milecastles by testing whether there are actually roads linking with them in the north.
- As outlined in detail in Section 3 (above), the proposed research ties in closely with many important regional research frameworks. In particular it ties in closely with multiple Themes and Priorities in *Frontiers of Knowledge: the Hadrian’s Wall Research Agenda and Strategy* (Symonds & Mason 2009b) (see Table 1, below).

Table 1: Relevant Themes and Priorities (after Symonds & Mason 2009b).

Themes and Priorities	Outcome
A) Raising profile, creating cohesion	3) Increased archaeological activity 4) Contributions to any Hadrian’s Wall publications 5) Community involvement 6) Increased awareness at regional, national and international levels of research on Hadrian’s Wall
B) Non-invasive survey	1) Increased awareness of extent, survival, complexity and management requirements of sites and course of the Wall 2) Ability to maximise impact of future interventions
P) Conceptualising the frontier	5) Further progress on understanding the purpose of Hadrian’s Wall
Q) Manning the Wall	1) Evidence for the degree and nature of extramural activity at milecastles

- Finally, the research will potentially contribute to our knowledge of post-Roman landscape development north of Hadrians’ Wall, which is an under-researched area

5. Methods Statement

The Aims and Objectives of this project will be achieved in three main phases:

- Phase 1. Preparation, desk-based assessment and start-up meeting.
- Phase 2. Geophysical survey.
- Phase 3. Small-scale excavation.

8.1 Phase 1: Preparation, desk-based assessment, and start-up meeting.

5.1.1 Based on discussions with a range of relevant experts, an additional sample of 3 Milecastles has been identified: Milecastles 32, 41 and 47. A review will be made of the available archaeological research literature to guide our interpretations and familiarise us with the current understanding of these Milecastles, building on the findings of Phase 1 of this project. This work will be done by Krissy Moore, and an overview of each milecastle will be presented at the project start-up meeting. A full bibliography will be attached to the reports, so that project volunteers can study sites in further detail should they wish to do so.

5.1.2 These Milecastles will be subjected to a desk-based assessment including map regression analysis to identify any past major land use impacts and GIS-based review of known sites on the HER and the National Mapping Programme database. The Milecastles are in a variety of topographic and geological locations and have undergone different levels of post-Roman land-use, all factors which will influence the efficacy of geophysical survey.

5.1.3 The preparation phase will include visits to all three milecastles, where the exact survey areas will be agreed on the ground. As these areas will be partially within scheduled ancient monuments, it will be necessary for the Project Manager to obtain Section 42 licences under the terms of the Ancient Monuments and Archaeological Areas Act 1979 (as amended). These licences will be obtained at the earliest opportunity, as far as possible in advance of the commencement of fieldwork.

5.1.4 Prior to the commencement of fieldwork, there will be a start-up workshop to be attended by all participants. This will provide volunteers with an introduction to Hadrian's Wall and in particular to current understanding of the role of milecastles within the Wall complex. It will also include a summary of the desk-based assessment for each of the three milecastles, and an introduction to geophysical survey techniques. The workshop will include a field inspection of one of the featured milecastles.

5.2 Phase 2: Geophysical survey

5.2.1 Fieldwork will be undertaken by Altogether Archaeology volunteers, under professional supervision from experts from Archaeological Services Durham University, who will provide all

necessary equipment. Each survey will be run as a training workshop, with techniques and methodology fully explained to all participants, all of whom will have the chance to participate in all aspects of the work. Decisions as to exactly how each survey is structured, and how many volunteers participate in each, will be made when we know how many volunteers wish to take part.

5.2.2 The exact location and size of the different survey areas will vary according to local topography, but the approximate areas to be covered are shown in Figures 2, 3 and 4. The proposed geophysical survey areas are presented as the green-shaded areas in Figures 2, 3 and 4 on the following pages. Please note that the areas will be laid out in the field to take local topography into consideration and may differ slightly in placement from the areas illustrated below, however it is expected that the areas will not exceed the following dimensions:

- Milecastle 32: 100m x 20m, to the north of the milecastle
- Milecastles 41 and 47: two areas of 60m x 20 m, to the north of each milecastle

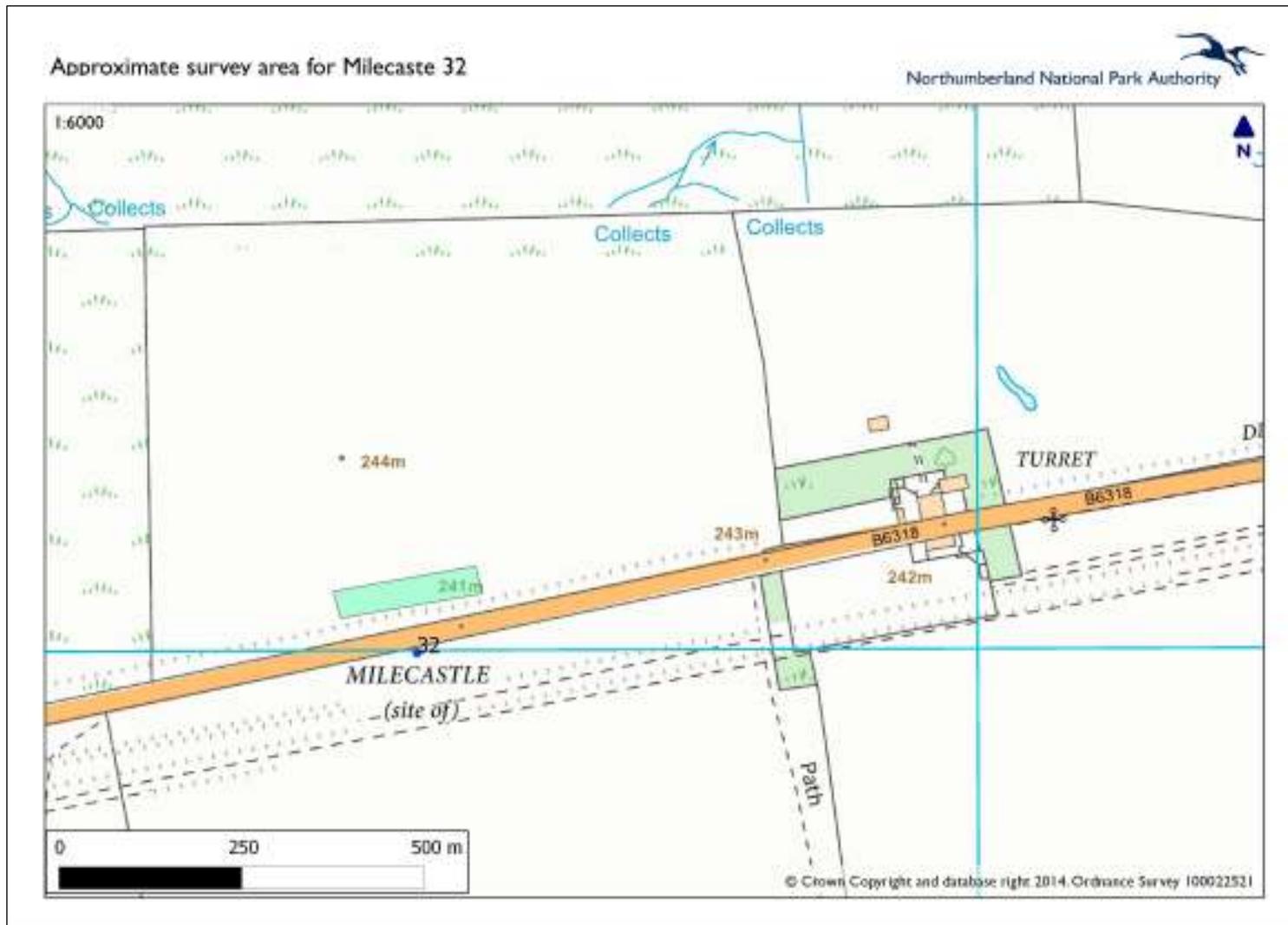


Figure 2: Milecastle 32 provisional approximate location of geophysical survey areas.

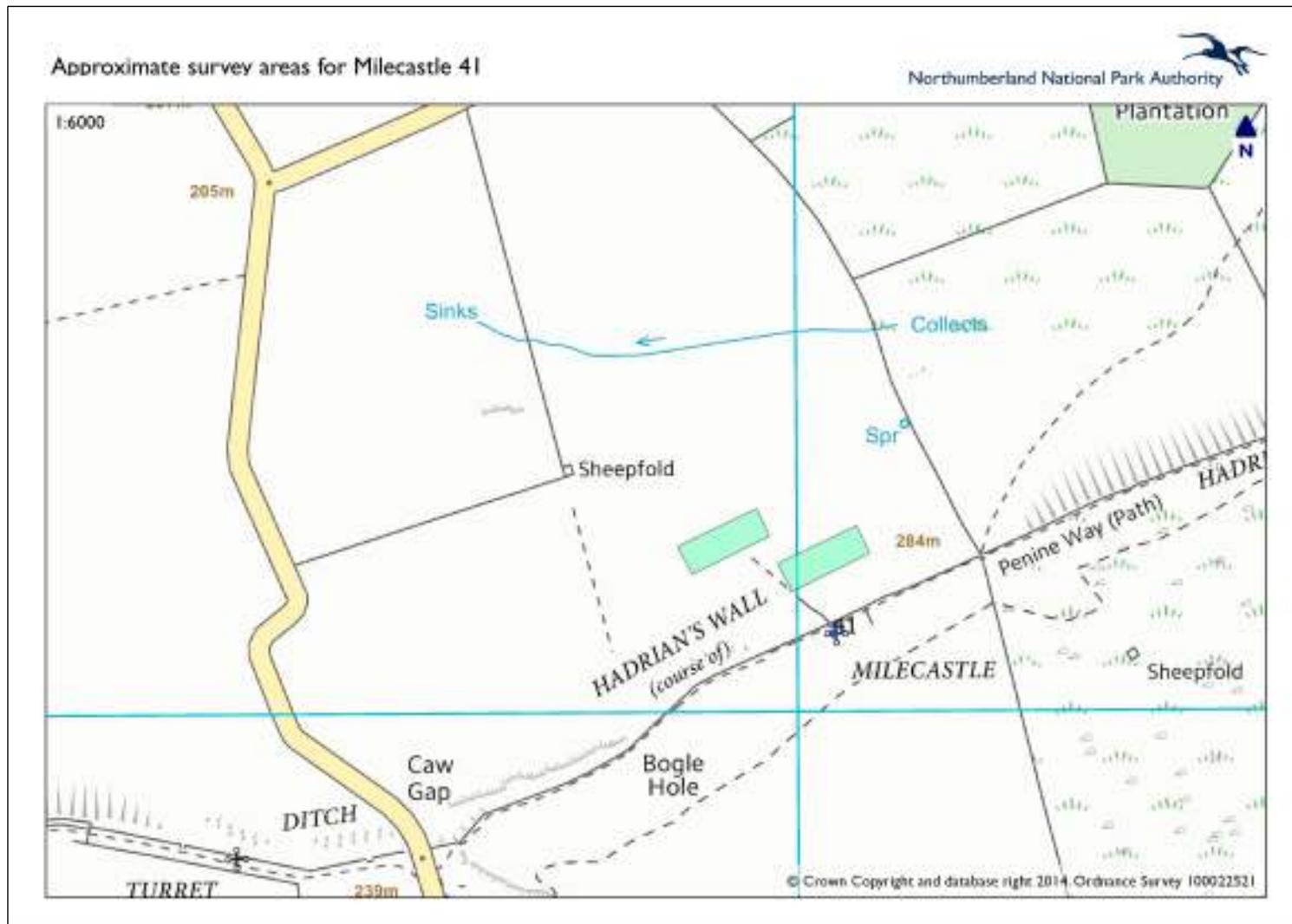


Figure 3: Milecastle 41, provisional approximate location of geophysical survey areas.

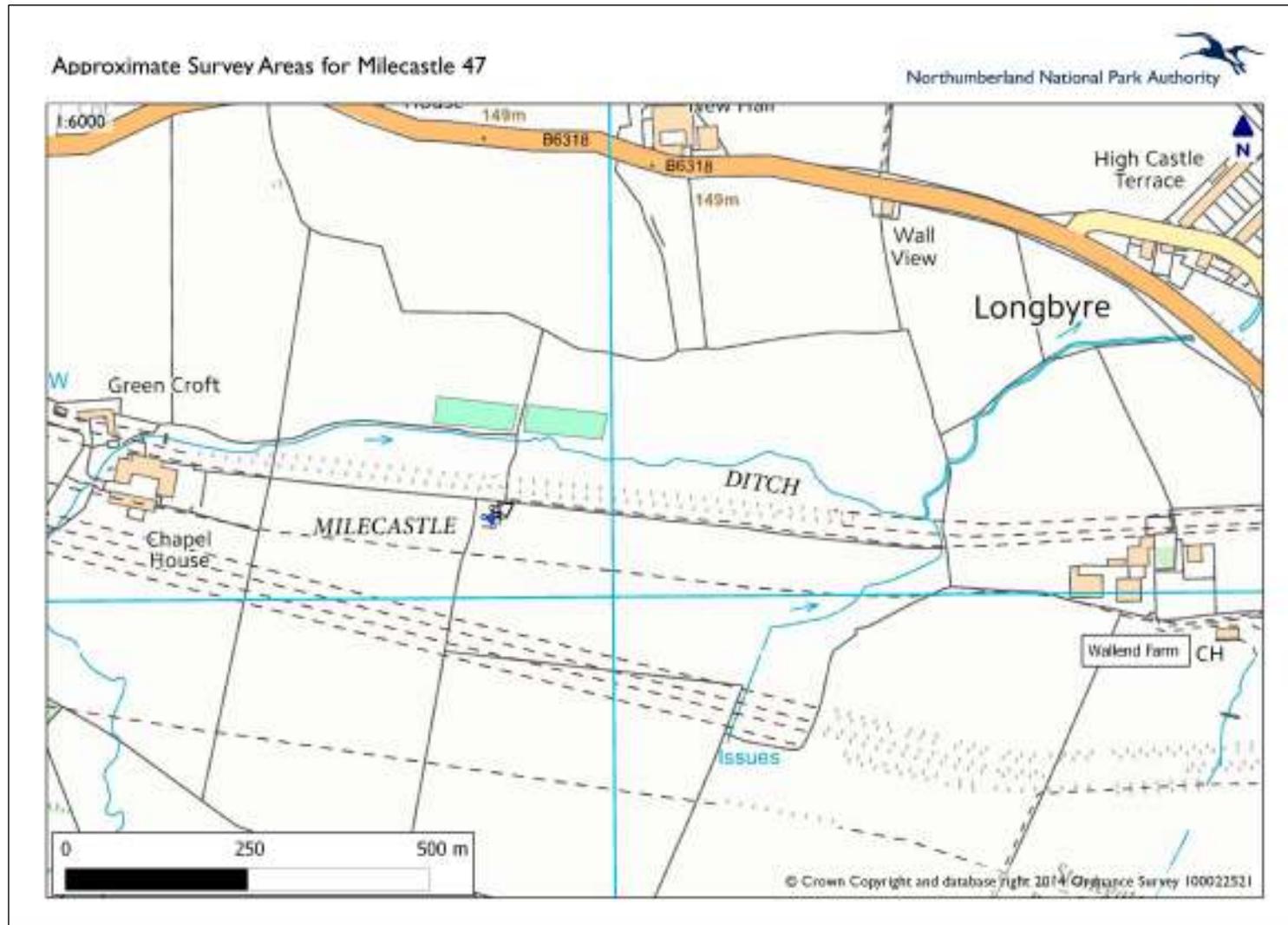


Figure 4: Milecastle 47 provisional approximate location of geophysical survey areas.

Technique selection

5.2.3 Geophysical surveying enables the relatively rapid and non-invasive identification of potential archaeological features and can involve a variety of complementary techniques such as magnetometry, electrical resistivity, ground-penetrating radar and electromagnetic survey. Some techniques are more suitable than others in particular situations, depending on a variety of site-specific factors including the nature of likely targets; depth of likely targets; ground conditions; proximity of buildings, fences or services and the local geology and drift.

- Milecastle 32: underlying geology of limestone, sandstone, siltstone and mudstone
- Milecastle 41: underlying geology of limestone, sandstone, siltstone and mudstone; immediately north of the crags which are formed by the Whin Sill complex
- Milecastle 47: underlying geology of limestone, sandstone, siltstone and mudstone; a band of limestone lies beneath the eastern quarter of the study area (after BGS Geological Formations, BGS 2006[?])

5.2.4 In this instance, it is possible that both built and cut features (for example road surfaces, ditches and pits) might be present. Given the anticipated nature and depth of targets it is proposed that two complementary techniques are used: geomagnetic survey (fluxgate gradiometry) and earth electrical resistance survey.

5.2.5 Fluxgate gradiometry involves the use of hand-held magnetometers to detect and record anomalies in the vertical component of the Earth's magnetic field which are caused by variations in soil magnetic susceptibility or permanent magnetisation; such anomalies can reflect, for example, ferrous, stone, brick and soil-filled features. Electrical resistance survey is ideal for detecting stone features such as walls, paths and culverts, but can also detect soil-filled features, depending on ground conditions at the time of survey. When a small electrical current is injected through the earth it encounters resistance which can be measured. Since resistance is linked to moisture content and porosity, stone and brick features will give relatively high resistance values while soil-filled features, which retain more moisture, will provide relatively low resistance values.

Fieldwork

5.2.6 A 20m survey grid will be established and tied-in to known mapped Ordnance Survey points using a Leica GS15 global navigation satellite system (GNSS) with real time kinematic corrections (RTK), typically providing accuracy of 10mm.

5.2.7 The field techniques involved in collection of the geophysical data will be taught to the local community volunteers who will then aid in the collection of data.

5.2.8 Measurements of vertical geomagnetic field gradient will be determined using Bartington Grad601-2 dual fluxgate gradiometers. A zig-zag traverse scheme will be employed and data logged

in 20m grid units. The sample interval will be set to 0.25m and the traverse interval to 1m, thus providing 1600 measurements per 20m grid unit.

5.2.9 Measurements of earth electrical resistance will be determined using Geoscan RM15D Advanced resistance meters with twin probe arrays and MPX15 multiplexers. A zig-zag traverse scheme will be employed and data logged in 20m grid units. The sample interval will be set to 1m and the traverse interval to 1m thus providing 400 sample measurements per 20m grid unit.

5.2.10 Data will be downloaded on-site into laptop computers for verification, initial processing and storage and subsequently transferred to a desktop computer for further processing, interpretation and archiving. Geoplot software will be used to process and interpolate the data to form arrays of regularly-spaced values at 0.25m x 0.25m intervals and to produce continuous-tone greyscale images and trace plots of the raw (unfiltered) data, as appropriate.

Research

5.2.11 Research objectives are built into archaeological projects, as a result of the English Heritage national policy framework and its objectives, as outlined within Exploring Our Past (English Heritage 1991), Frameworks for our Past (English Heritage 1996), the Research Agenda (English Heritage 1997), and the Policy Statement on implementation (1999). Archaeological Services will complete works within the research priorities set out in North-East Regional Research Framework (NERRF). The specific research objectives which this project has the potential to address include:

Reporting

5.2.12 The greyscales will be presented by importing the images directly into digital plans of the areas at the largest available scale. Palette bars relating the greyscale/trace intensities to anomaly values in nanoTesla and Ohms will be included with each image. Other types of plots may also be provided, if they aid presentation or interpretation. Colour-coded geophysical and archaeological interpretation plans will be provided. The survey report will also include a detailed discussion and interpretation, explaining the likely nature of the anomalies, along with their implications. Modern services and other potential hazards will be clearly distinguished.

5.2.13 The report will be based on the following format:

1. Executive summary
 - 1.1 The project
 - 1.2 Results
 - 1.3 Recommendations
2. Project background
 - 2.1 Location
 - 2.2 Development proposal
 - 2.3 Objective
 - 2.4 Specification summary

- 2.5 Dates
- 2.6 Personnel
- 2.7 Acknowledgements
- 2.8 Archive
- 3. Archaeological and historical background
- 4. Landuse, topography and geology
- 5. Geophysical survey
 - 5.1 Technique selection
 - 5.2 Field methods
 - 5.3 Data processing
 - 5.4 Interpretation: anomaly types
 - 5.5 Interpretation: features
- 6. Discussion, including recommendations for further work (see below)
- 7. References
- Appendix I: Trace plots of geomagnetic data

5.2.14 At the end of fieldwork a full report will be prepared suitable for use by the North Pennines AONB Partnership and NNPA. The report will be provided in pdf format; bound copies can be supplied as required. One hard copy and a digital version of the report will also be supplied both the County HER office and English Heritage. An OASIS form will also be submitted. A report will be made available via the AONB and NPA websites.

Archive

5.2.15 A survey archive will be produced on CD containing copies of the report, raw data files and metadata. This will be lodged with client for deposition with the project archive in due course.

5.3 Phase 3: Targeted excavation

5.3.1 If no geophysical anomalies which may correlate to roads are identified, the report produced for Phase 3 will stand as the final output for the project and no further fieldwork will take place. However, if geophysical anomalies, which may correlate to roads, are identified, the geophysical survey report will serve as an Interim Report, and will contain recommendations for a programme of small-scale targeted test excavations.

5.3.2 Depending on the results of the geophysics, exploratory excavations may be arranged at one or more of the survey sites. Geophysical anomalies will be evaluated through a programme of test-pitting. It is anticipated that particular attention will be paid to the relationships between any anomalies that appear to intersect or to run parallel to each other, to possible pits, and to the terminals of any linear features.

5.3.3 Should it be decided to undertake such excavations, a detailed written scheme of investigation will be produced and agreed with the Advisory Team prior to the commencement of fieldwork. A commercial archaeology unit will be contracted to deliver the excavation phase, post excavation, reporting and publication (if appropriate), including incorporation of the results of the phase 1 programme.

6. Stages, tasks and timetable

STAGE or Task No.	STAGE/Task	Person(s) responsible	Dates (all 2014)
S 1	PREPARATION		
T 1.1	Preliminary site meetings.	PF/KM	October 2014
T 1.2	Finalising of MORPHE compliant project design and EH approval.	PF/KM/MC	November 2014
T 1.3	Obtain Section 42 licences	PF/KM/MC	November 2014
T 1.4	Produce risk assessment.	PF	November 2014
T 1.5	Put project live on AA sector of AONB website, inviting volunteers to register.	PF	November 2014
T 1.6	Closing date for volunteer registration	PF	November 2014
T 1.7	Agree volunteer participation rota – inform volunteers.	PF	November 2014
T 1.8	Project start-up meeting	Volunteers/PF/KM/ASDU	March 2015
S 2	FIELDWORK		
T 2.1	Site set-up	Volunteers/DH/KM/CJ	19 th March 2015
T 2.2	Three fieldwork days – 19 th , 20 th and 21 st March	ASDU/Volunteers/CJ/KM	19 th -21 st March 2015
S 3	REPORT, ARCHIVE & PUBLICITY		
T 3.1	Production of report	DH/KM/CJ	April 2015
T 3.2	Discussion of follow-up fieldwork & drafting of Project Design(s) as appropriate.	DH/KM/CJ/PF	April 2015
T 3.3	Delivery of follow up fieldwork (as appropriate)	DH/KM/PF	TBC
T 3.4	Presentation of final report to HEWG	DH/KM/PF	TBC

T 3.5	Deposition of archive, dissemination of final report to HER & OASIS	DH/KM/PF	TBC
T 3.6	Link to Project Report placed on AONB & NP websites.	KM/PF	April 2015
T 3.7	Contribution to <i>Altogether Archaeology</i> end of project conference	KM/PF	Late September 2015

CJ = Chris Jones (Northumberland National Park Historic Environment Officer)

KM = Krissy Moore (Northumberland National Park Authority Community Archaeologist)

PF = Paul Frodsham (North Pennines AONB Partnership)

DH = Duncan Hale (Archaeological Services Durham University)

MC = Mike Collins (English Heritage)

RY = Rob Young (English Heritage)

7. Project scope and links with other projects

7.1 This project primarily on adding detail to our understanding of the function of Milecastles and specifically how they connected (if at all) with the under-researched landscape north of the Wall. The data obtained will further our understanding of Roman and potentially early-medieval land use in the area immediately north of the Stone Wall sections within Northumberland National Park. Despite a public perception of the Roman period and Hadrian's Wall being well-understood, all of the research frameworks referred to in Section 3 of this document indicate the great potential for future discovery.

7.2 This will link in with other projects including:

- Altogether Archaeology Module 8: North of the Wall. Geophysical survey will complement the other projects within the Northumberland National Park (the prehistoric landscape surveys at Ravensheugh and Standingstones Rigg, the first Phase of the Milecastles geophysics project, and the proposed geophysical survey of the deserted medieval settlement around Bradley Hall in the Bardon Mill area). These surveys all aim to explore the vast under-researched archaeological resource of archaeology in the complex multi-period landscapes north of the wall. Additional geophysical survey of Milecastles will add to the work completed in Phase 1 and allow us to argue more convincingly for a particular interpretation of milecastle function once the results have been analysed.
- The ongoing research aims of *Frontiers of Knowledge: the Hadrian's' Wall Research Framework* (Symonds & Mason 2009a, b), the *Northumberland National Park Regional Research Framework* (Young et al. 2004), *Shared Visions: the North East Regional Research*

Framework (Petts & Gerrard 2006) and the *Research Strategy for the Roman-Period Historic Environment* (English Heritage 2012).

- For more detail on project links, see Section 3 of this document.

8 Project team structure and communications

8.1 In accordance with standard Altogether Archaeology practice, this project will be overseen by a Project Team, as follows:

Krissy Moore (Project manager)	Northumberland National Park Authority Community Archaeologist	Project management/ coordination. Assistance with fieldwork.
Chris Jones	Northumberland National Park Historic Environment Officer	Coordination, supervision, advice, assistance with fieldwork.
Paul Frodsham	North Pennines AONB Partnership Historic Environment Officer and Altogether Archaeology Project Manager	Project management/ coordination. Assistance with fieldwork.
Duncan Hale	Geophysics Specialist, Durham University Archaeological Services	Direction of project fieldwork, including delivery of volunteer training.
Mike Collins	English Heritage Archaeological Advisor (Hadrian's Wall)	General liaison with English Heritage.
Rob Young	English Heritage North-East Archaeological Advisor	General liaison with English Heritage.
Paget Lazzari	Northumberland National Park Senior Ranger	Advisor regarding farmer and landowner liaison.
David McGlade	Hadrian's Wall National Trail Officer	Advisor regarding farmer and landowner liaison.
Hum Welfare	The Hadrian's Wall Management Plan Committee	To be informed of progress of research
David Mason and Matt	Hadrian's Wall Archaeological	To be informed of progress of

Symonds	Research Group	research
Tony Wilmott	English Heritage	To be informed of progress of research

8.2 Overall project management will be by Krissy Moore, assisted by Paul Frodsham and if appropriate also by other members of the North Pennines AONB Historic Environment Working Group (HEWG). The HEWG is the designated advisory group for the whole of the *Altogether Archaeology* project; it includes the Northumberland Archaeologist and English Heritage North-East Region Inspector of Ancient Monuments. Paul Frodsham will be responsible for co-ordinating volunteer involvement in the project. Krissy Moore will be responsible for preparatory work including liaison with the landowners and the provision of site facilities. The project is being delivered in partnership with the Department of Archaeology at Durham University. Various members of staff and students may become involved, but the key partner at the university is Duncan Hale.

8.3 Fieldwork will be undertaken by Altogether Archaeology volunteers with training and supervision provided by professional staff from Archaeological Services, who have extensive experience working on comparable projects with volunteers. Paul Frodsham and Krissy Moore will produce a risk assessment, and will be responsible for health and safety on site throughout fieldwork.

8.4 The *Altogether Archaeology* project has a pool of some 500 volunteers, of whom about 50 are expected to participate actively in this module. Although there must be some flexibility with regard to volunteer involvement, it is expected that the project will be structured with three groups (one for each milecastle) of up to a dozen volunteers. Paul Frodsham will draw up a rota showing which volunteers expect to be on site each day, with fieldwork planned accordingly. Some volunteers are more experienced than others, but all will receive an appropriate level of training and supervision.

8.5 Paul Frodsham maintains the Altogether Archaeology volunteer database, and information about the project will generally be disseminated by email or telephone using contact details contained within this database. For ease of communication, any local people wishing to take part in the geophysical survey project who have not registered with the Altogether Archaeology project will be asked to do so, at least temporarily. All communication with volunteers will then be via the Altogether Archaeology volunteer database.

8.6 Paul Frodsham, Krissy Moore, Duncan Hale and other project staff will be in daily contact during the fieldwork phase, and will communicate as necessary by email, telephone and face to face meetings as necessary during project planning and post-excavation phases.

8.7 The North Pennines AONB Historic Environment Working Group (the advisory group for the Altogether Archaeology project) meets quarterly. A draft report on the results of this project will be presented by PF for discussion at the first meeting following completion of the project.

9. Land ownership and access

Contact details for the various owners and tenants of the study area are kept by NNPA. All access permissions have been granted. Copies of final reports will be provided to tenant farmers and landowners.

10. Health & Safety and Insurance

10.1 Full consideration will be given to matters of health and safety throughout this project. All work will be undertaken in accordance with the 1974 Health and Safety Act and its subsequent amendments, the 2007 Construction Design and Management Regulations, and the Standing Conference of Archaeological Unit Managers (SCAUM) Health and Safety Manual (2007). Work will also take place under the terms of the Durham University Health and Safety Policy and Code of Practice for Safety in Fieldwork.

10.2 A full Risk Assessment will be undertaken to assess all real and potential hazards prior to the commencement of fieldwork. A comprehensive health and safety induction will be given to all volunteers at project start-up, and all will be required to read a written statement on health and safety which will be kept on site and which all volunteers partaking in the project will be required to sign, stating that they have read and understood it and that they will abide by its terms. A generic Risk Assessment for Altogether Archaeology fieldwork is included herewith as Appendix 1, and a specific Risk Assessment for this module forms Appendix 2.

10.3 At least one qualified First-Aider and appropriate first aid supplies will be present on site at all times while fieldwork is in progress. Staff members will be supplied with appropriate safety clothing and equipment, and advice as to appropriate clothing and equipment will be provided to volunteers.

10.4 All aspects of the Altogether Archaeology project are covered by Durham County Council's comprehensive insurance policy. In addition, Archaeological Services staff are covered by their own insurance provided by Durham University.

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Appendices

Appendix 1. Altogether Archaeology Generic Risk Assessment

Appendix 2. Module 8 Project Specific Risk Assessment

Appendix 3. Risk Log