



WATCHING BRIEF REPORT

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WAREN MILL SEWAGE TREATMENT WORKS

NORTHUMBERLAND

prepared for

J N Bentley

on behalf of

Northumbrian Water Ltd

Project No.: 1417

Text: Holly Cooper

Illustrations: Dawn Knowles

QUALITY ASSURANCE	
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Client J N Bentley Ltd for Northumbrian Water Ltd
Location Waren Mill STW, Northumberland
District Easington
Planning Ref 16/03016/CCM
Grid Ref NU 1440 3415
Northumberland
CC ref B17/02: 26572
OASIS Ref northern1-327524
Dates of Fieldwork 3rd – 13th April & 11th – 25th June 2018

NORTHERN ARCHAEOLOGICAL ASSOCIATES LTD
WAREN MILL SEWAGE TREATMENT WORKS, NORTHUMBERLAND
Watching Brief Report

Site name: Waren Mill Sewage Treatment Works, Northumberland

Grid reference: NU 1440 3415

Parish: Easington

County: Northumberland

Administrative authority: Northumberland County Council

Development: Sewage Treatment Works

Client: Northumbrian Water Ltd

Contractor: J N Bentley Ltd

Site supervisor: Holly Cooper

Project manager: Oliver Cooper

Fieldwork Date(s): 3rd – 13th April 2018, 11th – 25th June 2018

NAA project number: 1417

Site code: WME18

NAA report number: 18/54

Report date: September 2018

Reasons for watching brief

The watching brief was commissioned in response to a development proposal to create a new pumping station and two sewage treatment lagoons to service Waren Mill and the surrounding area (Figure 1). Owing to the location of the development within the inter-tidal zone of Budle Bay and close to known archaeological assets, which are summarised below and discussed in more detail in the WSI (NAA 2017), it was agreed that there was potential for archaeological remains to be uncovered during construction and that initial groundworks should take place under archaeological supervision.

Summary of nearby heritage assets

Prehistoric and Roman

There are no early prehistoric heritage assets within the immediate vicinity of the development site. Within the wider area, scatters of flints of Mesolithic date, for example near Budle Crag and Spindlestone Heugh to the east, indicate that the coastal plain was a well-used resource. The

sites were close to the edge of the inter-tidal zone at Budle Bay, which provided ready access to fresh water for drinking, as well as freshwater, marine and coastal fauna. A stone axe of Neolithic date found within the same area demonstrates continuing human activity.

Bronze Age activity in the area is represented by inhumations and cremations near Spindlestone, perhaps associated with the defended settlement at Spindlestone Heugh, which is a scheduled monument. However, it is considered that the latter is probably Iron Age in date. A second defended settlement once stood on the hill 150m to the west of the development site, but subsequent ploughing has levelled the earthworks such that the site is known only from cropmarks of a concentric double ditch.

There are no recorded Roman heritage assets within 10km of the development.

Medieval

Although there are no physical remains, it is considered that the settlement encompassing Waren Mill had its origins in the medieval period. There are cropmarks and earthworks in the surrounding area that indicate the former presence of large open fields, subdivided into individual strips of ridge and furrow. Outchester, to the south, appears to have been another medieval settlement; there are cropmarks to the east of the current farm of that name, representing a possible settlement with a moated manor house at the eastern end, which is a scheduled monument.

Post-medieval

The cornmill called Waren Mill, which is a Grade II listed building, was built in 1783, but almost certainly includes elements of earlier mill buildings. The mill leat runs along the valley of Waren Burn, having already powered Spindlestone Mill, 1km to the south.

Other heritage assets of post-medieval date within the study area comprise three further Grade II listed buildings: the bridge over Waren Burn; Waren House, now a hotel; and Spindlestone Ducket, the listing for which suggests it was most likely a dovecote, but possibly a windmill.

Results

The development area comprised two distinct sites (Figure 2). The lower site would be the location of a new pumping station and compound and occupied the area of the existing pumping station and the land immediately to the west, fronting Budle Bay. The upper site was situated on

a plateau to the south-west of Waren Mill, within a field directly south of the Chesterhill Dean plantation, and would be the location of the two large sewage treatment lagoons as well as a site compound. The upper and lower sites were to be joined by approximately 900m of new sewer pipe.

The schedule of works meant that archaeological monitoring occurred in a number of phases culminating in the large open area topsoil strip of the upper site. These phases will be discussed here in sequence.

Lower site, pumping station: test pits.

Ten test pits, each approximately 1.5m by 1.5m, were excavated by machine across the area of the lower site. The test pits were dug to the level of the natural geology to examine the build up of deposits and inform a strategy for the construction of a site compound and access road. Only one test pit (TP1; Figure 2) revealed a feature of archaeological interest, and is discussed further below.



Plate 1. Lower site: test pits across the area, looking south-east towards the converted mill buildings. Test Pit 1 is located to the left of the mechanical excavator in the distance.

Test Pit 1

Beneath the topsoil (12) was a layer of red brick and stone rubble (15) which, when removed revealed a stone wall foundation (18) orientated north to south along the eastern edge of the test pit (Plate 2). Measuring 0.6m wide with a visible elevation of 0.30m, wall 18 was constructed of irregular blocks of Whinstone bonded with lime mortar (Plate 3), the same construction technique and materials employed in the adjacent mill building and cottages. The wall was cut through a 0.70m-thick black soil deposit (16) containing ash and fragments of post-medieval pottery, and then into the natural sandy clay (14). No further remains of wall 18 or the structure to which it relates were exposed during groundworks and are considered likely to have been removed by the construction of the original pumping station; its form, function and date are therefore unclear.



Plate 2. Lower site, Test Pit 1, facing north. Wall 18 cutting through dark soil deposit 16 and into natural clay 14.



Plate 3: Lower site, Test Pit 1. West-facing elevation of wall 18 showing irregular coursing of Whinstone blocks.

Test Pits 2 -10

No further archaeological remains were revealed in the nine other test pits across the lower site (see Figure 3 for locations). The topsoil was on average 0.30m thick and overlay mid-yellowish-brown sandy subsoil (13), which contained occasional fragments of brick and stone rubble and post-medieval pottery. The test pits were dug to an average depth of 0.60m, the subsoil deposits being deemed adequate in terms of load-bearing for the new compound, access road and pumping station. Given the thickness of the subsoil, no further archaeological monitoring was undertaken during the stripping of the lower site.

Upper site, compound and sewage treatment lagoons

In conjunction with the topsoil strip of the upper site, a series of test pits was excavated for the purposes of waste acceptance criteria (WAC) and geotechnical testing. These were within the area labelled 'New Aero-Fac' on Figure 2. Eight geotechnical test pits were excavated by machine across the upper site, each 0.90m wide and in excess of 3m deep. An initial strip of the topsoil and subsoil was conducted to determine the presence of any archaeology. No archaeological remains were observed in any of the test pits, but their locations are shown on Figure 3.

An initial topsoil strip was conducted with a 9-tonne excavator along the western boundary of the upper site, to accommodate the haul road and access into the field. The topsoil (**01**) and subsoil (**02**) were removed to reveal firm orange clay (**03**) at an average depth of 0.50m. Two furrows, **04** and **06**, were cut into natural clay **03** and ran the length of the trench from north to south (Plate 4, right). Located approximately 4m apart, they each measured 0.90m wide by 0.15m deep and were filled with the compact silty clay subsoil **02**, which contained occasional fragments of post-medieval white-glazed pottery and bottle glass (not retained).



*Plate 4: Upper site: haul road strip looking south showing furrow **06** (right) and pit **08** (left).*

At the north end of the haul road trench, ovoid pit **08** cut the natural clay between furrows **04** and **06** (Plate 4, left, Plate 5). Measuring 1.20m by 0.90m, with a surviving depth of 0.30m, pit **08** was infilled with greyish-brown silt containing a number of angular stone fragments and charcoal flecks (**09**). Due to heavy rain during excavation, it was not possible to obtain a suitable photograph of the excavated pit. Two metres to the north-west was a possible posthole (**10**), 0.40m in diameter and 0.20m deep, filled with a comparable silty clay deposit to pit **08**. The weathered character of the feature fills in comparison to that of the post-medieval furrows **04** and **06** indicated that they may have pre-dated the furrows, and perhaps that the two features were contemporary. No dating evidence was recovered and due to heavy rain it was not practicable to take environmental samples. Speculatively, the proximity of the upper site to a known later prehistoric settlement to the north-west, above Easington Quarry (NAA 2017, HER 5143), might indicate that features **08** and **10** relate to the later prehistoric period.



Plate 5: Upper site: ovoid pit 08, haul road strip

Following completion of the haul road, the area of the site compound and main development area (which would house the sewage treatment lagoons) were stripped of topsoil. Aside from a third furrow (19), running parallel to furrows 04 and 06 within the compound area, and a number of post-medieval field drains running downhill from west to east, only one feature of possible archaeological origin was identified.

Located 40m to the north-east of the southern site access, feature 23 was the shallow base of an ovoid pit measuring 2m by 1.07m and 0.15m deep. It was filled almost entirely with charcoal with inclusions of burnt clay and medium to large fragments of heat-fractured stone (24) (Plate 6). In places, the edges of pit 23 were heat-reddened as a result of the material being warm when deposited, however the base of the feature was unaffected. No finds were retrieved from fill 24 and no fragments of burnt bone were evident, which precludes the possibility that feature 23 was the base of a pyre or cooking fire. The undisturbed nature of the pit suggested a relatively modern

date, albeit predating the most recent ploughing, and so it was not sampled for palaeoenvironmental remains. It is possible that the feature was of much earlier origin.



Plate 6: Upper site, main area strip. Ovoid pit 23 and charcoal fill 24 showing concentration of heat-fractured stone in the southern half of the feature.

All recorded archaeological remains were concentrated at the western extent of the development area, on a natural plateau. The apparent absence of archaeology in the area to the east of pit 23 could be a result of the site topography, sloping downhill to the east, or perhaps due to ploughing and agricultural activity, which is certainly evident from the post-medieval furrows, field drains and plough-scarring noted across the development area. The potential for the survival of any further archaeological remains in the area of the upper site is therefore low and negates the requirement for further archaeological monitoring.

Documentation: Paper archive, black and white and digital photographs.

Archive deposition: Internal at NAA.

References

Northern Archaeological Associates (NAA) (2017) *Written Scheme of Investigation. Waren Mill Sewage Treatment Works, Northumberland*. NAA ref **17/151**

Northumberland County Council (NCC) (2016) *Proposed construction of a new sewage treatment works (STW), Waren Mill Sewage Treatment Works, Waren Mill, NE70 7EE: Brief for an Archaeological Watching Brief*. NCC ref **B17/02: 26572**

Appendix

Northumberland Conservation specification

Proposed construction of a new sewage treatment works (STW), Waren Mill Sewage Treatment Works, Waren Mill, NE70 7EE

Brief for an Archaeological Watching Brief

1 Introduction

- 1.1 A planning application has been submitted for the abandonment of the existing sewage treatment works and the construction of a new facility at Warren Mill.

2 Archaeological background

- 2.1 The site has not been subject to a detailed archaeological assessment. It borders the Warren Burn as it discharges into the Budle Bay and is located approximately 50m west of the mill. No significant archaeological features are currently recorded on or close to the site. However, the site lies in a sheltered area on the edge of the inter-tidal zone at Budle Bay. This location provides ready access to fresh water, as well as freshwater, marine and coastal fauna, including resources available on the mud flats at low tide.

- 2.2 This location is likely to have been particularly attractive to early prehistoric populations, though the relative abundance of subsistence resources available and the situation of the naturally sheltered bay will have been attractive to local communities until very recently. There is therefore potential for archaeological features associated with the occupation and / or exploitation of the inter-tidal zone to occur within and around the proposed development site. In particular, archaeological remains associated with the exploitation of the site in the prehistoric period, if present, have potential to contribute to an understanding of this section of the coast during that period. Whilst the present day coastline will not be unchanged since the prehistoric period, the situation of the site (close to a freshwater source on the intertidal zone) will not have changed significantly.

2.3 Policy Background

- 2.3.1 Policy relating to the assessment and mitigation of impacts to the heritage resource within the planning system is set out in the *National Planning Policy Framework*. The Framework identifies that the planning system should perform 'an environmental role', contributing to and protecting the built and historic environment¹ and that the pursuit of 'sustainable development' includes seeking improvements to the built, natural and historic environment.²

- 2.3.2 The Framework further clarifies that, in circumstances where heritage assets will be damaged or lost as a result of development, Local Planning Authorities should require developers to record and advance the understanding of the asset to be lost in a manner appropriate to the significance of the asset. The evidence (and any archive) generated as part of the plan making process should be made publically accessible; copies of the evidence generated should be deposited with the relevant

¹ NPPF Paragraph 7

² NPPF Paragraph 9

Historic Environment Record and archives with the relevant museum.³

2.4 Mitigation of development impact

- 2.4.1 The proposed development will impact or destroy any archaeological features within the area of construction impact. Having assessed the potential impact of the development on the archaeological resource, Northumberland Conservation has advised Northumberland County Council (NCC) Development Management Team that should permission be granted, a condition should be attached to the permission requiring a programme of archaeological mitigation consistent with the objectives of paragraphs 141; 176; 203-206 of the *National Planning Policy Framework*.

2.5 Northumberland Conservation Charging Policy

- 2.5.1 Northumberland Conservation operates a charging policy. Charges are calculated to recover the costs of staff time and travel associated with the preparation and monitoring of archaeological assessment and mitigation work in the planning context.
- 2.5.2 A copy of the current charging policy can be viewed via the Northumberland County Council website⁴. This is an application for Major development. **Fees as set out in Table 2 of the charging document⁵ will apply.**

2.6 Purpose of the Brief

- 2.6.1 This brief constitutes Northumberland Conservation's justification for the investigation, its objectives and the strategy and procedures to apply to the programme of archaeological recording. **This brief does not constitute the required 'written scheme of investigation'.**
- 2.6.2 The brief is intended to establish the project parameters to enable an archaeological consultant or contractor to tender for the work and, once commissioned, to prepare and submit an appropriate Written Scheme of Investigation/Project Design/Method Statement to Northumberland Conservation for approval prior to work commencing. **The mitigation brief is tied directly into the planning condition and as a result there will be no charge for the production of a mitigation brief. The prior approval of Written Schemes of Investigation for archaeological work and excavation reports are chargeable services.**

2.7 Purpose of the Written Scheme of Investigation (WSI)

- 2.7.1 The Written Scheme of Investigation (WSI)/Project Design/Method Statement should be produced in line with the detailed requirements laid out in the brief or following detailed discussion with the Assistant County Archaeologist.

³ NPPF Paragraph 141 and footnote 30

⁴ Charging Policy document: <http://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Planning-and-Building/Conservation/Archaeology/Charging-Policy.pdf>

⁵ <http://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Planning-and-Building/Conservation/Archaeology/Charging-Policy.pdf>

- 2.7.2 The WSI should be based on a thorough study of all relevant background information, in particular any assessment or evaluation reports or, in their absence, data held or referenced in Northumberland Historic Environment Record (HER). *Contractors should therefore ensure that they have made provision to consult the HER as part of any required tender submissions or project costings. **The submitted WSI should include a summary archaeological background informed by the results of the HER search.***
- 2.7.3 The developer should discuss the extent of the development, the nature of the works and their intended scope of works with their archaeological contractor **prior to the production of a WSI**, in order that an appropriate programme of archaeological monitoring can be **agreed and confirmed within the WSI**.
- 2.7.4 The archaeological contractor must confirm if they intend to use digital or slide and print photography. Contact should be made with the relevant Archives (see sections 3.4 and 4.1) to discuss their requirements **prior to the production of the WSI**. **Details of these requirements should be included in the WSI for approval.** *Contractors should therefore ensure that they have made provision for any associated fees as part of any required tender submissions or project costings.*
- 2.7.5 In line with part (a) of the planning condition, work cannot commence on site until the WSI has been submitted to NCC Development Management Team and approved in writing on the advice of Northumberland Conservation. **Fees as set out in Table 1 / 2 of the charging document will apply.**⁶

3 Method of work

- 3.1 The purpose of this work is to ensure that important archaeological remains are not destroyed without first being adequately recorded.
- 3.2 The proposed development has the potential to disturb unrecorded archaeological remains. It is considered that in this case a **watching brief** is the appropriate archaeological response. The watching brief should cover the following groundworks for the development:
- Excavations for removal or grubbing out of existing structures
 - Excavations for areas of hardstanding, compounds, temporary roads
 - Groundworks associated with site clearance
 - Landscaping activities
 - Excavations for the construction of the new sewage treatment plant
- 3.3 **Should the groundworks not exceed modern disturbance or equally should they exceed the depth at which archaeological remains are present, Northumberland Conservation should be contacted in order to establish whether the watching brief need continue in these specific areas.**

3.4 General Standards

⁶ <http://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Planning-and-Building/Conservation/Archaeology/Charging-Policy.pdf>

- 3.4.1 All work should be carried out in compliance with the codes of conduct of the Chartered Institute for Archaeologists (CIfA)⁷ and should follow the CIfA Standards for Watching Briefs.⁸
- 3.4.2 All work should be carried out in compliance with the Regional Statement of Good Practice.⁹
- 3.4.3 All staff must be suitably qualified and experienced for their project roles.
- 3.4.4 All staff must familiarise themselves with the archaeological background of the site, and the results of any previous work in the area, prior to the start of work on site. All staff must be aware of the work required under the specification, and must understand the projects aims and methodologies.

3.4.5 Pre-site work preparation

- i) A specification in line with this brief must be submitted and approved by Northumberland Conservation **prior** to work commencing.
- ii) Contractors should ensure that they have made provision to consult the HER as part of any required tender submissions or project costings. The results should be included in the written scheme of investigation.
- iii) **The archaeological contractor should note that the formulation of an appropriate environmental sampling strategy is a mandatory part of this project. Advice on such a strategy must be obtained from the Historic England Scientific Advisor for North East England, Historic England Offices, Bessie Surtees' House, 41-44 Sandhill, Newcastle upon Tyne NE1 3JF (Tel. 0191 269 1250 or Mobile: 077134 00387).**
- iv) **The Great North Museum, Newcastle-upon-Tyne and ADS (if digital photography is being used) should be contacted to discuss archiving prior to work commencing**

3.4.6 Fieldwork

- i) This observation shall involve the systematic examination and accurate recording of all archaeological features, horizons and artefacts identified.
- ii) **If archaeological remains are uncovered, the archaeologist should be given the opportunity of excavating and recording the remains before they are destroyed.**
- iii) A full and proper record (written, graphic and photographic as appropriate) should be made for all work, using pro forma record sheets and text descriptions appropriate to the work. Accurate scale plans and section drawings should be drawn at 1:50, 1:20 and 1:10 scales as appropriate. Where skeletons are encountered, they should be recorded by photography and the use of pro forma skeleton recording sheets.
- iv) The area watched by the archaeologist should be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. All archaeological deposits and features and at the top and base of all

⁷ Chartered Institute for Archaeologists, 2014, *By-Laws: Code of Conduct*
<http://www.archaeologists.net/codes/ifa>

⁸ Chartered Institute for Archaeologists, 2014, *Standard and Guidance for an archaeological watching brief*
<http://www.archaeologists.net/codes/ifa>

⁹ Yorkshire, The Humber and the North-East: A Regional Statement of Good Practice for Archaeology in the Development Process (25 November 2009)

- groundworks must be recorded with an **above Ordnance Datum (aOD)** level.
- v) A photographic record of all contexts should be taken in colour transparency and black and white print and should include a clearly visible, graduated metric scale. A register of all photographs should be kept. **If the archaeological contractor would prefer to use digital photography as standard, the digital photographs will need to be submitted to the Archaeological Data Service (ADS) for long-term archive storage. ADS will need to be approached prior to the production of the Written Scheme of Investigation (see section 1.7.1) and the digital archiving details included in that document. Contact details can be provided by Northumberland Conservation on request.**
 - vi) In the event of human burials being discovered, they should be left *in situ*, covered. If removal is essential, a license will be obtained from the Ministry of Justice and work will be carried out under appropriate environmental health regulations.
 - vii) **Where any part of a human burial is disturbed, the whole burial must be archaeologically excavated.**
 - viii) Appropriate procedures under the relevant legislation must be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996.
 - ix) During and after the excavation, all recovered artefacts must be stored in the appropriate materials and storage conditions to ensure minimal deterioration and loss of information (this should include controlled storage, correct packaging, regular monitoring of conditions, immediate selection for conservation of vulnerable material).

4 Contingency arrangements

- 4.1 In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and Northumberland Conservation and a representative of the developer will be notified. An assessment will be made of the importance of the remains and any provision for their recording or preservation in situ as appropriate.
- 4.2 The contingency for this project has been set at up to **20** person-days.
- 4.3 In the event that hearths, kilns or ovens (of whatever period, date or function) are identified during the watching brief, provision should be made to collect at least one archaeo-magnetic date to be calculated from each individual hearth surface (or in the case of domestic dwellings sites a minimum of one per building identified).
- 4.4 Where applicable, samples to be collected from the site and processed by a suitably trained specialist for dating purposes. In the event that such deposits or structures are identified, the Conservation Team should be contacted to discuss the appropriate response. This specific aspect of the sampling strategy should also be discussed in advance with Historic England as per 'General Standards' above.

4.5 Site monitoring and visits

- 4.5.1 The Assistant County Archaeologist dealing with this application must be informed on the start date and timetable for the watching brief **in advance** of work commencing.

- 4.5.2 Reasonable access to the site for the purposes of monitoring the archaeological scheme will be afforded to the Assistant County Archaeologist or his/her nominee at all times.
- 4.5.3 Regular communication between the archaeological contractor, the Assistant County Archaeologist and other interested parties must be maintained to ensure the project aims and objectives are achieved.
- 4.5.4 Northumberland Conservation has identified that **1** site visit may be required for the mitigation programme.
- 4.5.5 There will be no charge for the first visit but any additional visits will be charged at the standard hourly rate plus mileage. Any additional visits requested by the developer will be charged for at the rate stated in the charging document. Visits estimated that do not occur, will not be charged for. Site visits will be charged on the basis of return mileage from County Hall to the site.

5 Post-excavation work and reporting

5.1 Finds

- 5.1.1 All finds processing, conservation work and storage of finds must be carried out in compliance with the IfA Guidelines for Finds Work¹⁰ and those set by UKIC.
- 5.1.2 The deposition and disposal of artefacts must be agreed with the legal owner and recipient museum **prior** to the work taking place. Where the landowner decides to retain artefacts adequate provision must be made for recording them. Details of land ownership should be provided by the developer.
- 5.1.3 All retained artefacts must be cleaned and packaged in accordance with the requirements of the recipient museum.

5.2 Site Archive

- 5.2.1 Paragraph 141 of the *National Planning Policy Framework* clarifies that Local Planning Authorities should make evidence gathered as part of archaeological mitigation exercises, including any archive, publically accessible. Copies of the primary report should be deposited with the Historic Environment Record and the archive deposited with an agreed local museum.
- 5.2.2 Archiving work must be carried out in compliance with the IfA Guidelines for Archiving¹¹.
- 5.2.3 The archive and the finds must be deposited in the Great North Museum, within **6 months** of completion of the post-excavation work and report.

¹⁰ Chartered Institute for Archaeologists, *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*
<http://www.archaeologists.net/codes/ifa>

¹¹ Chartered Institute for Archaeologists, *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives*
<http://www.archaeologists.net/codes/ifa>

5.2.4 Before the commencement of fieldwork, contact should be made with the landowners and with the Great North Museum to make the relevant arrangements. Details of land ownership should be provided by the developer.

5.2.5 *If the archaeological contractor would prefer to use digital photography as standard, the digital photographs will need to be submitted to the Archaeological Data Service (ADS) for long-term archive storage within 6 months of completion of the post-excavation work and the report.*

5.2.6 Northumberland Conservation will require confirmation that the archive had been submitted in a satisfactory form to the relevant depository before recommending to the local planning authority that the condition should be fully discharged.

5.3 Report

5.3.1 The archaeological consultant or contractor must submit a copy of the report to their client and Northumberland Conservation within 2 months of completion of the work.

5.3.2 Northumberland Conservation requires one bound paper copy and one digital copy (in Word or PDF format) of the report.

5.3.3 Northumberland Conservation will need to approve the report before discharging the condition on the planning permission

5.3.4 Each page and paragraph should be numbered within the report and illustrations cross-referenced within the text.

5.3.5 The report should include as a minimum the following:

- i) Planning application number, Northumberland Conservation reference, OASIS reference number, Archive reference and an 8 figure grid reference
- ii) A summary statement of the results
- iii) A copy of this brief
- iv) A copy of the 'check-list' appended to this brief
- v) A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds
- vi) Above Ordnance Datum levels and levels below current ground level in the text
- vii) A location plan of the site at an appropriate scale of at least 1:10 000
- viii) A location plan of the extent of the watching brief within the site. This must be at a recognisable planning scale, and located with reference to the national grid, to allow the results to be accurately plotted on the Historic Environment Record
- ix) Plans and sections of archaeology located at a recognisable planning scale (1:10, 1:20, 1:50 or 1:100, as appropriate)
- x) Above Ordnance Datum (aOD) levels included on plans and sections
- xi) Both aOD levels and depth below current ground level to be included within the text
- xii) Any variation to the above requirements should be approved by the planning authority prior to work being submitted**

5.4 Approval of report

5.4.1 In line with the planning condition, the report will need to be submitted to NCC Development Management Team and approved in writing before the condition can be discharged. Approval of the report will be on the advice of Northumberland Conservation.

5.4.2 There will be a fixed charge for approving the report submitted at the post-excavation phase, including (if appropriate) interim and final reports. This cost has been based on the estimated time required to undertake this activity. **Fees as set out in Table 2 of the charging document will apply.**¹²

5.5 OASIS

5.5.1 Northumberland Conservation and HER support 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.

5.5.2 The archaeological consultant or contractor must therefore complete the online OASIS form at <http://oasis.ac.uk/>. If the contractors are unfamiliar with OASIS, they are advised to contact Northumberland HER prior to completing the form. Once a report has become a public document by submission to or incorporation into the HER, Northumberland HER will validate the OASIS form thus placing the information into the public domain on the OASIS website. **The archaeological consultant or contractor must indicate that they agree to this procedure within the specification/project design/written scheme of investigation submitted to Northumberland Conservation for approval**

5.6 Publication

5.6.1 A summary should be prepared for 'Archaeology in Northumberland' and submitted to Liz Williams, Northumberland HER Officer, by December of the year in which the work is completed.

5.6.2 A short report of the work should also be submitted to a local journal if appropriate and agreed with Northumberland Conservation. If publication is a requirement, the publication report will need to be approved by Northumberland Conservation before discharging the condition on the planning permission

6 Further Guidance

6.1 Any further guidance or queries regarding the provision of a specification should be directed to:

Nick Best
Assistant County Archaeologist
Northumberland County Council
County Hall
Morpeth

¹² Charging Policy document: <http://www.northumberland.gov.uk/NorthumberlandCountyCouncil/media/Planning-and-Building/Conservation/Archaeology/Revised-Northumberland-Conservation-Charging-Policy.pdf>

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29 September 2016

**FOR COPYRIGHT REASONS, ALL MAPS SUPPLIED BY NORTHUMBERLAND COUNTY
COUNCIL MUST BE RETURNED TO THEM ON COMPLETION OF THE PROJECT**

Archaeological Watching Brief Report Check List

Site name:

Archaeological Contractor:

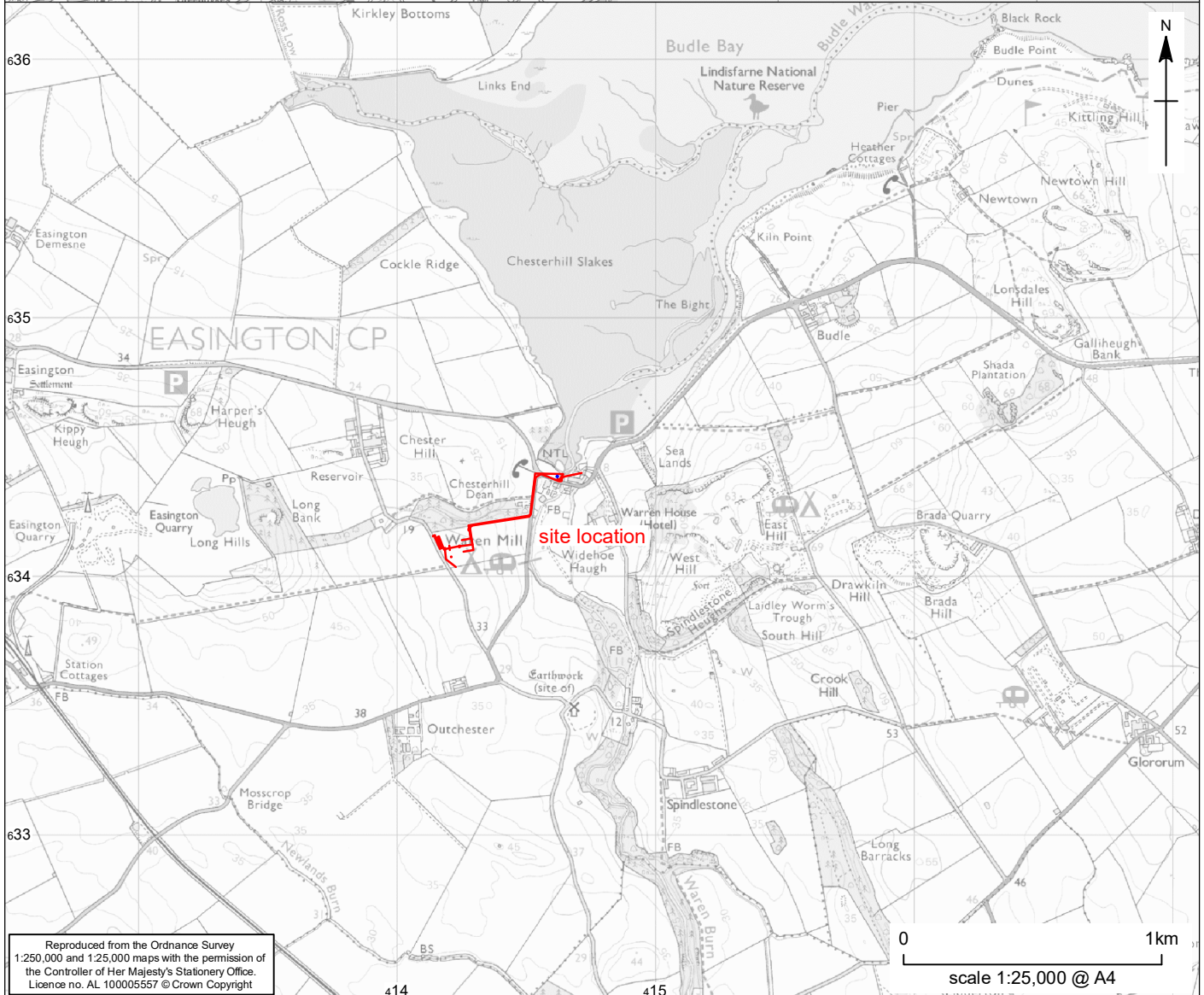
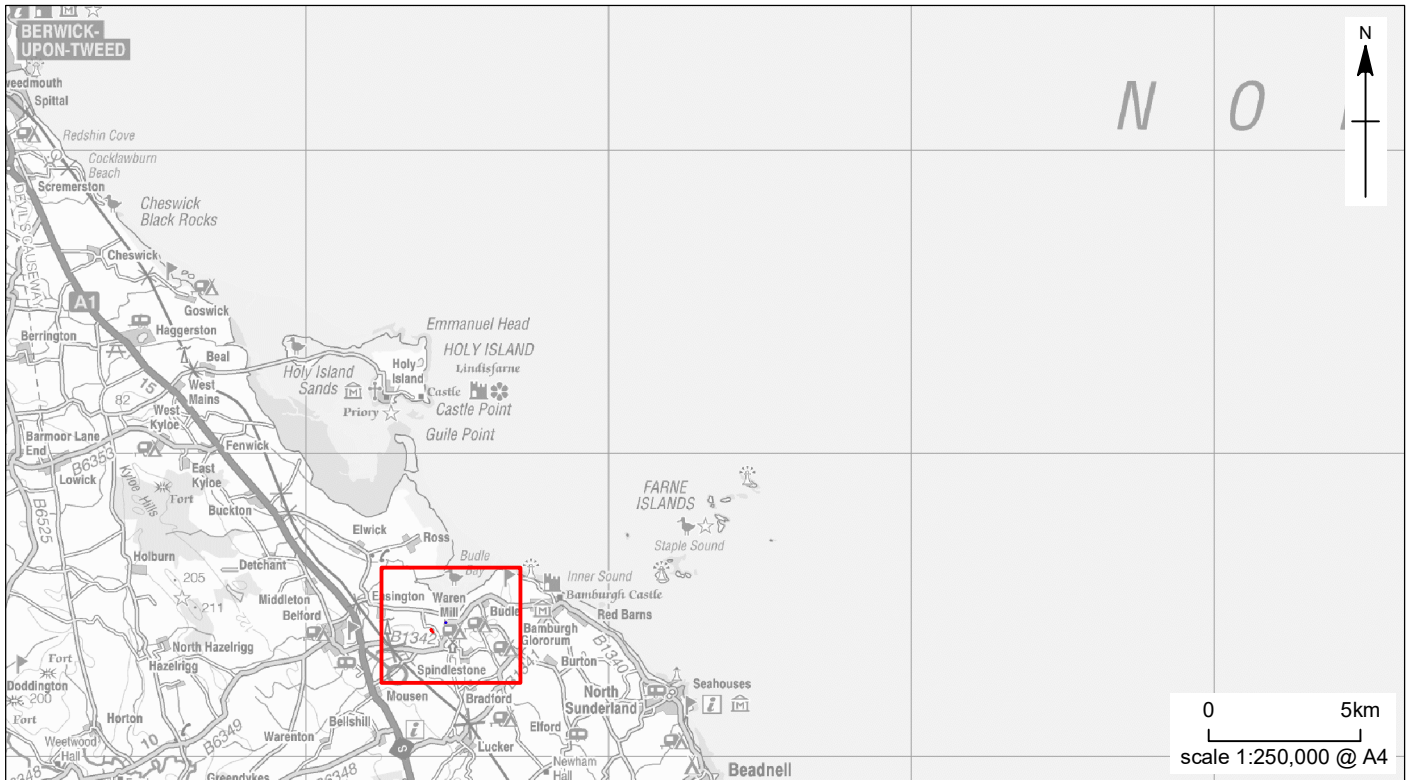
Check List	Contractor	Northumberland Conservation (NC)
Copy of report checklist		
Planning ref.		
Northumberland Conservation ref.		
OASIS ref.		
Confirmation that all OASIS sections completed incl. submission of grey literature		
Archive reference		
8 figure grid reference		
Results		
Summary statement of the results		
Table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds		
Plans and sections		
Location plan at scale of at least 1:10000		
Plans showing location of archaeological work at recognisable planning scale		
Plans showing location of archaeological work with reference to national grid		
Detailed plans and sections at recognisable planning scale		
Above Ordnance Datum levels and levels below current ground level in the text		
Above Ordnance Datum levels included on plans and sections		
Any variation approved by NC prior to work commencing		

Contractor checked:

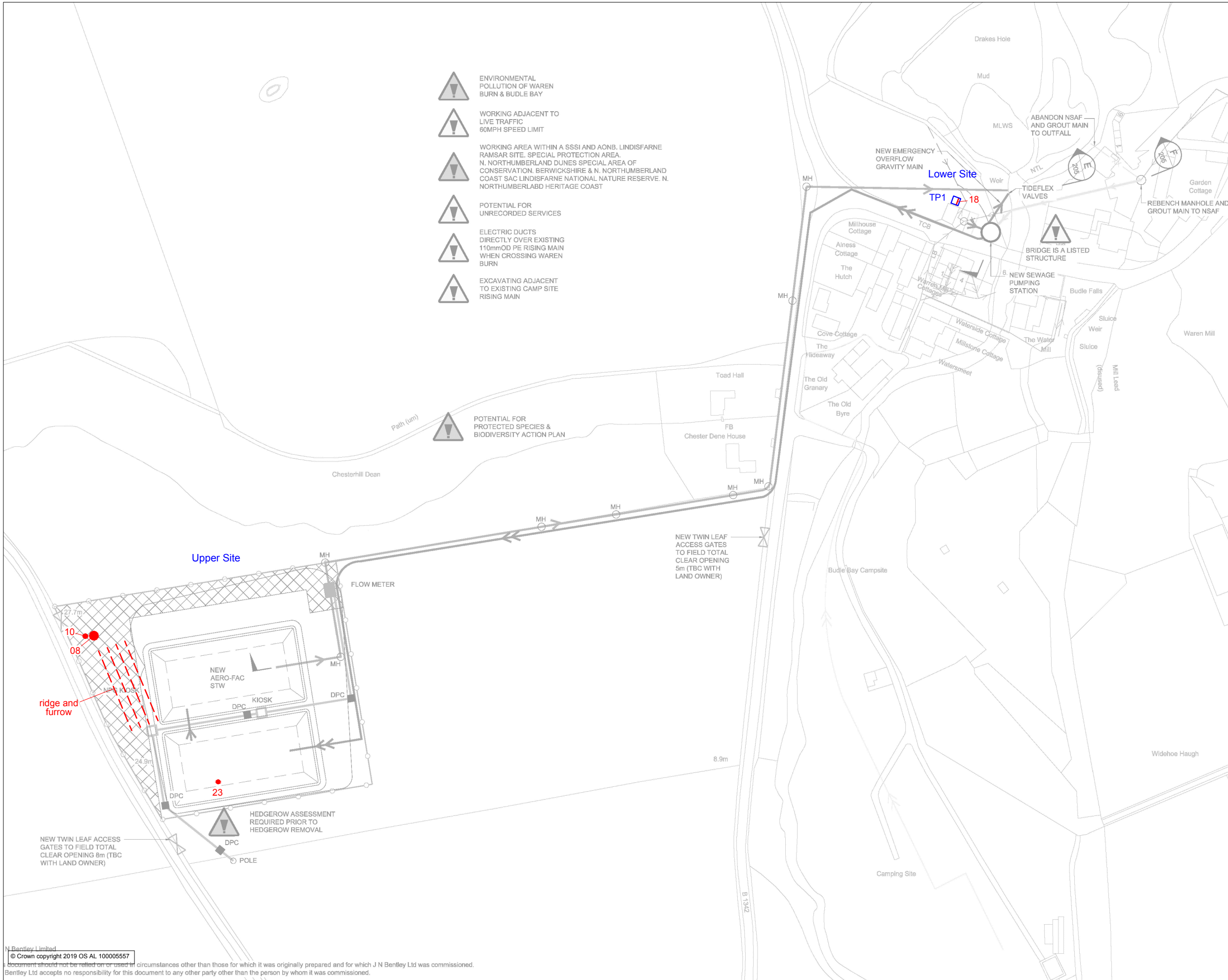
NC Officer checked:

Date:

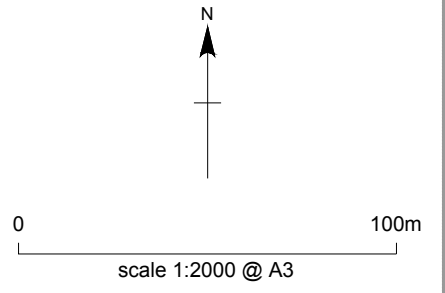
Date:



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- ENVIRONMENTAL POLLUTION OF WAREN BURN & BUDLE BAY
- WORKING ADJACENT TO LIVE TRAFFIC 60MPH SPEED LIMIT
- WORKING AREA WITHIN A SSSI AND AONB, LINDISFARNE RAMSAR SITE, SPECIAL PROTECTION AREA, N. NORTHUMBERLAND DUNES SPECIAL AREA OF CONSERVATION, BERWICKSHIRE & N. NORTHUMBERLAND COAST SAC LINDISFARNE NATIONAL NATURE RESERVE, N. NORTHUMBERLAND HERITAGE COAST
- POTENTIAL FOR UNRECORDED SERVICES
- ELECTRIC DUCTS DIRECTLY OVER EXISTING 110mm OD PE RISING MAIN WHEN CROSSING WAREN BURN
- EXCAVATING ADJACENT TO EXISTING CAMP SITE RISING MAIN
- POTENTIAL FOR PROTECTED SPECIES & BIODIVERSITY ACTION PLAN



Key to symbols

	NEW 100mmØ UPVC GRAVITY SEWER
	NEW TIMBER POST & RAIL FENCE TOTAL 415m
	ABANDONED GRAVITY SEWER
	NEW 150mmØ UPVC GRAVITY SEWER TOTAL 602m
	NEW 150mmØ UPVC GRAVITY SEWER TOTAL 30m
	NEW 2 NO. 150mmØ UPVC ELECTRIC DUCTS TOTAL 297m
	EXISTING GRAVITY SEWER
	NEW TIMBER FIELD GATE
	EXISTING FOUL RISING MAIN (ASSUMED)
	NEW PE RISING MAIN 600m
	EXISTING GRAVITY SURFACE WATER
	NEW MANHOLE
	NEW DUCT PULLING CHAMBER
	HARDSTANDING AREA/ FOOTPATH

Reference drawings

PRELIMINARY

P2	21/10/16	MD	Minor Amendments	RN	DO
P1	20/07/16	RK	Preliminary issue	RN	DO
Rev	Date	Drawn	Description	Ch'k'd	App'd

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Client
NORTHUMBRIAN WATER *living water*

Title
 STW PROGRAMME BATCH WWNN
 WAREN MILL STW
 PROPOSED GENERAL ARRANGEMENT

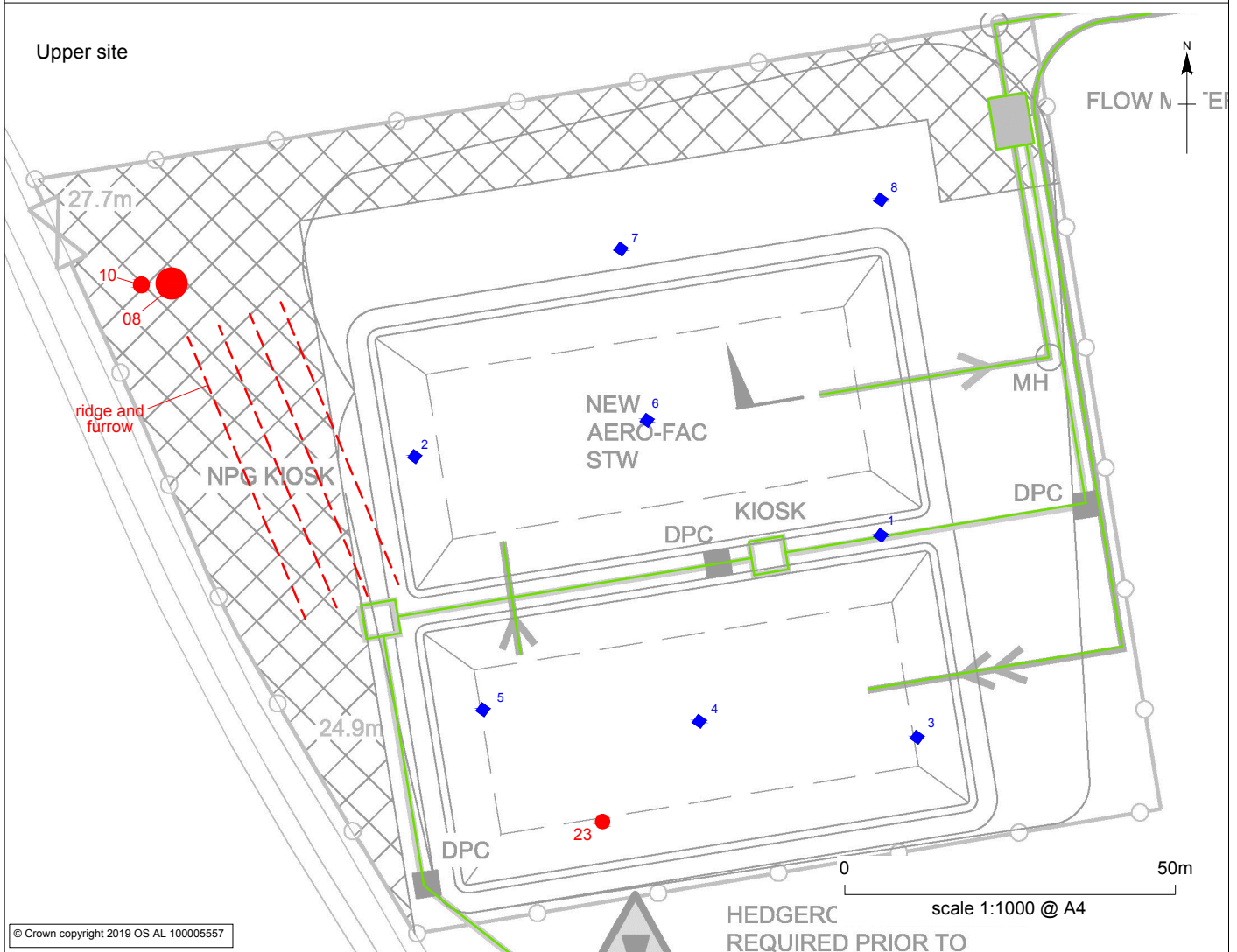
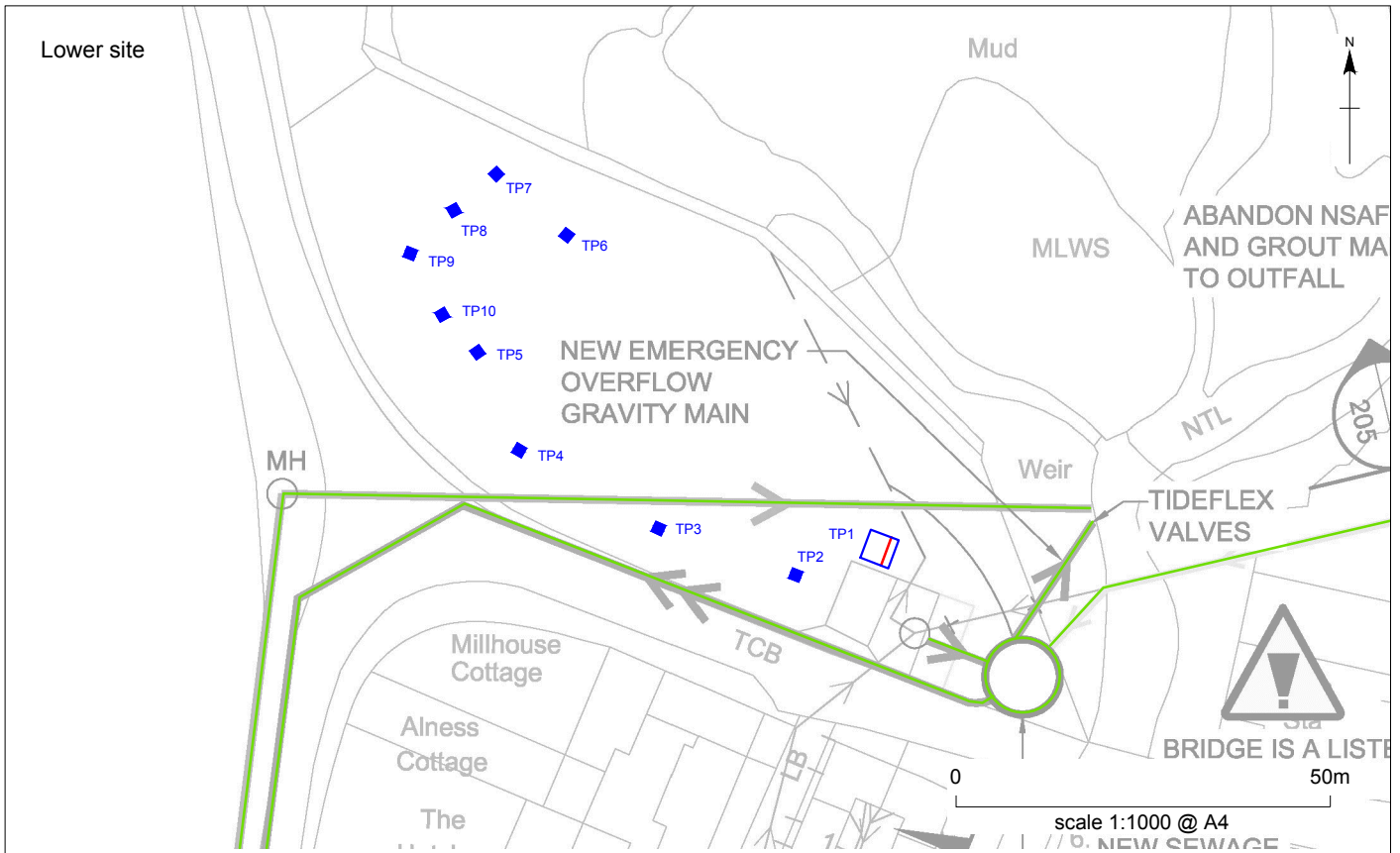
DRL No:

Designer.	P Bell	Engineering Check.	R Nixon
Draughter.	M Dawson	Co-ordinator.	
Drawing Check.	A Glendenning	Design Manager Approval.	D Olson
Scale	Project File:	Status	
	G:\P Contracts\PD46-01	PRE	
Drawing No	PD46-01-200	Rev	P2

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Wren Mill, Sewage Treatment Works: location of works

Figure 2



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Waren Mill, Sewage Treatment Works: location of test pits

Figure 3