AN ARCHAEOLOGICAL WATCHING BRIEF ON THE SLAGGYFORD TO TIPALT OHL REFURBISHMENT, NEAR EALS BRIDGE, KNARSDALE, NORTHUMBERLAND

PCA

PRE-CONSTRUCT ARCHAEOLOGY

An Archaeological Watching Brief on the Slaggyford to Tipalt OHL Refurbishment, near Eals Bridge, Knarsdale, Northumberland

Central National Grid Reference: NY 6827 5525

Site Code: SLA 10

Planning Application Reference: 20100086

Northumberland Conservation Reference: T32/3; 10891

Utility Company Reference: MJ/9815166

Commissioning Client:

Northern Electric Distribution Limited
Cargo Fleet Lane
Middlesbrough
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Contractor:

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1. NON-TECHNICAL SUMMARY

1.1 An archaeological monitoring and recording exercise was undertaken in association with the refurbishment of an overhead electricity supply between Slaggyford and Tipalt in Northumberland. The refurbishment scheme involves the replacement of wooden poles which carry the overhead line.

1.2 The archaeological investigation was commissioned by Northern Electric Distribution Limited and undertaken by Pre-Construct Archaeology Limited on 8 September 2010. The work was requested by the Northumberland Conservation, part of the County Council, as it was considered that intrusive groundworks at two specific locations, near Knarsdale, along the Slaggyford to Tipalt route, had potential to destroy important archaeological remains. The aim of the archaeological work was therefore to ensure that any archaeological remains exposed during groundworks at these locations were recorded prior to their destruction.

1.3 The first of the two archaeologically sensitive locations was located *c.* 1.2km north of Slaggyford on the west side of the valley of the River South Tyne, *c.* 100m south-west of the village of Knarsdale, where the overhead line route lies close to the line of the Maiden Way Roman road. The second location was a further *c.* 1.6km to the north-north-east, on the east side of the river valley, *c.* 75m south-east of Eals Bridge, where the route passes close to Eals Bridge lime kiln. This is of post-medieval date, although a more precise date of construction is not know.

1.4 Groundworks for the new pole to carry the overhead line at the first location, near Knarsdale, were not subject to archaeological monitoring. Groundworks for the foundation pits for the new pole and its supports at the second location, at Eals Bridge lime kiln, were archaeologically monitored. The central National Grid Reference for this location is NY 6827 5525.

1.5 Three deep, narrow foundation pits were excavated to accommodate the new pole and two supporting stays at Eals Bridge lime kiln. Various deposits were recorded within the pits, mostly comprising glaciofluvial material, with topsoil forming the existing ground surface. No remains of archaeological significance were recorded.

2. INTRODUCTION

2.1 General Background

2.1.1 This report describes the results of a programme of archaeological monitoring and recording (watching brief) undertaken in association with the refurbishment of the overhead electricity line (OHL) between Slaggyford and Tipalt in Northumberland.

2.1.2 The watching brief was commissioned by Northern Electric Distribution Limited (NEDL) and undertaken by Pre-Construct Archaeology Limited (PCA) on 8 September 2010. NEDL submitted a planning application for the OHL refurbishment scheme and the work was undertaken at the request of Northumberland Conservation, part of Northumberland County Council (NCC). A Brief[1] for the archaeological work was prepared by the Northumberland Conservation and details of the scheme of archaeological investigation were set out in a Project Design[2] prepared by PCA.

2.1.3 Two specific locations along the OHL route near Knarsdale were identified as being archaeologically sensitive, where groundworks had particular potential to disturb important archaeological remains. The first was to the south of the village of Knarsdale, where the route runs close to the line of the Maiden Way Roman road, and the second was south-east of Eals Bridge on the River South Tyne, where the route runs close to Eals Bridge lime kiln.

2.1.4 At the time of writing, the Site Archive is housed at the Northern Office of PCA, at Unit N19a, Tursdale Business Park, Durham. The completed Site Archive, comprising written, drawn, and photographic records, will be deposited at the Great North Museum, under the site code SLA 10. The Online Access to the Index of Archaeological Investigations (OASIS) reference number is: preconst1-112320. The OASIS entry for the project is complete and this report has been uploaded as a pdf.

2.2 Site Location and Description

2.2.1 The Slaggyford to Tipalt OHL refurbishment scheme is for the most part associated with the valley of the River South Tyne, to the south of Haltwhistle, in the westernmost part of Northumberland (Figure 1). The OHL route runs northwards from the village of Slaggyford, along the western side of the river valley, through Knarsdale, and then turns to the north-east to cross the river a short distance to the south of Eals Bridge, before continuing northwards towards Haltwhistle.

2.2.2 Two specific areas of archaeological interest were identified on the OHL route. The first (central National Grid Reference NY 6766 5371) was 'Pole 21', located *c.* 1.2km north of Slaggyford, on the west side of the river valley, *c.* 100m south-west of the village of Knarsdale, where the route lies close to the line of the Maiden Way Roman road. The second (central National Grid Reference NY 6827 5525) was 'Pole 27', located a further *c.* 1.6km to the north-north-east, on the east side of the river valley, *c.* 75m south-east of Eals Bridge, where the route passes close to Eals Bridge lime kiln (Figure 2).

[1] Northumberland Conservation, NCC 2010. This document – reference T32/3; 10891 - forms Appendix C.
[2] PCA 2010.

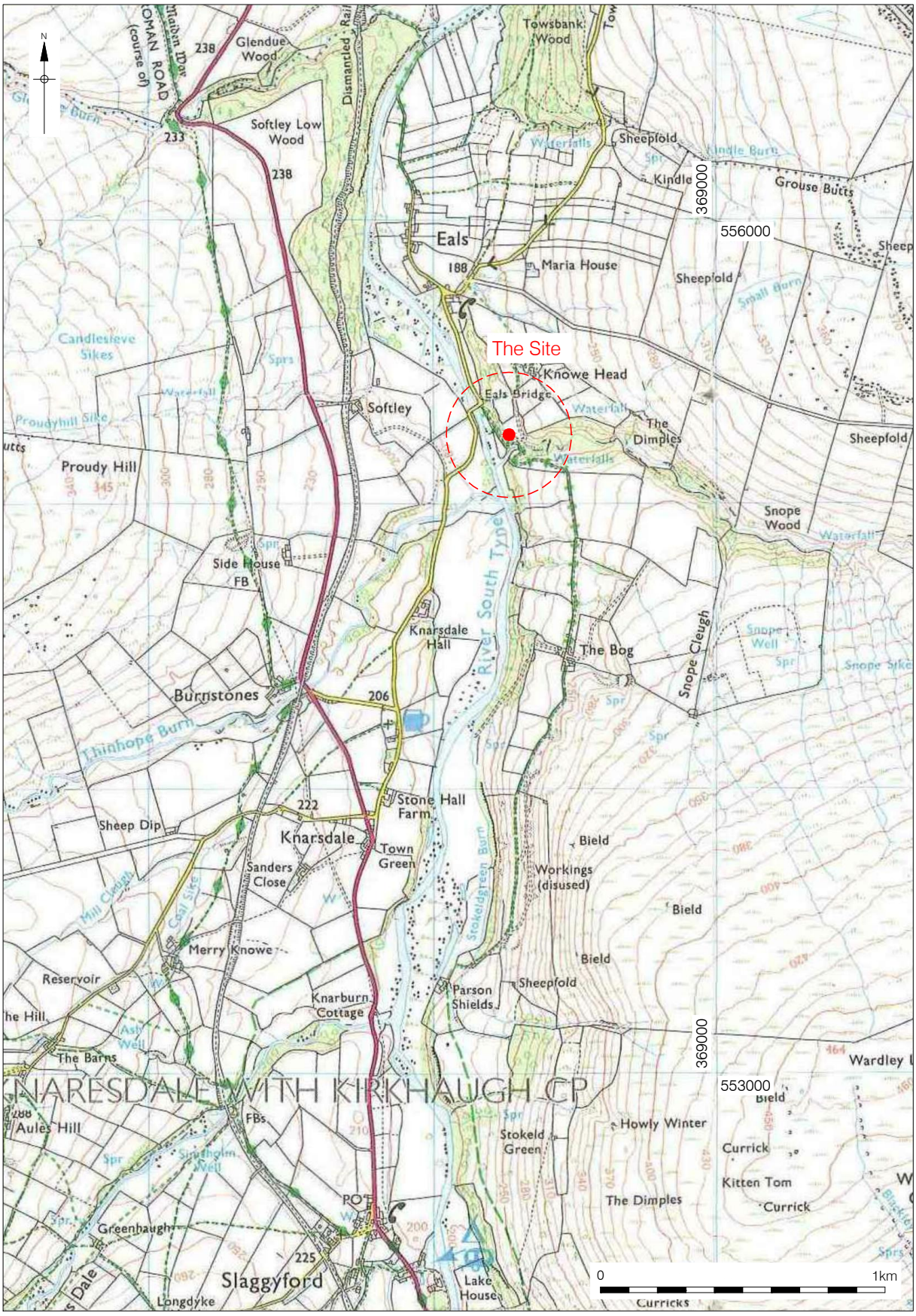

Figure 1
Site Location
1:20,000 at A4

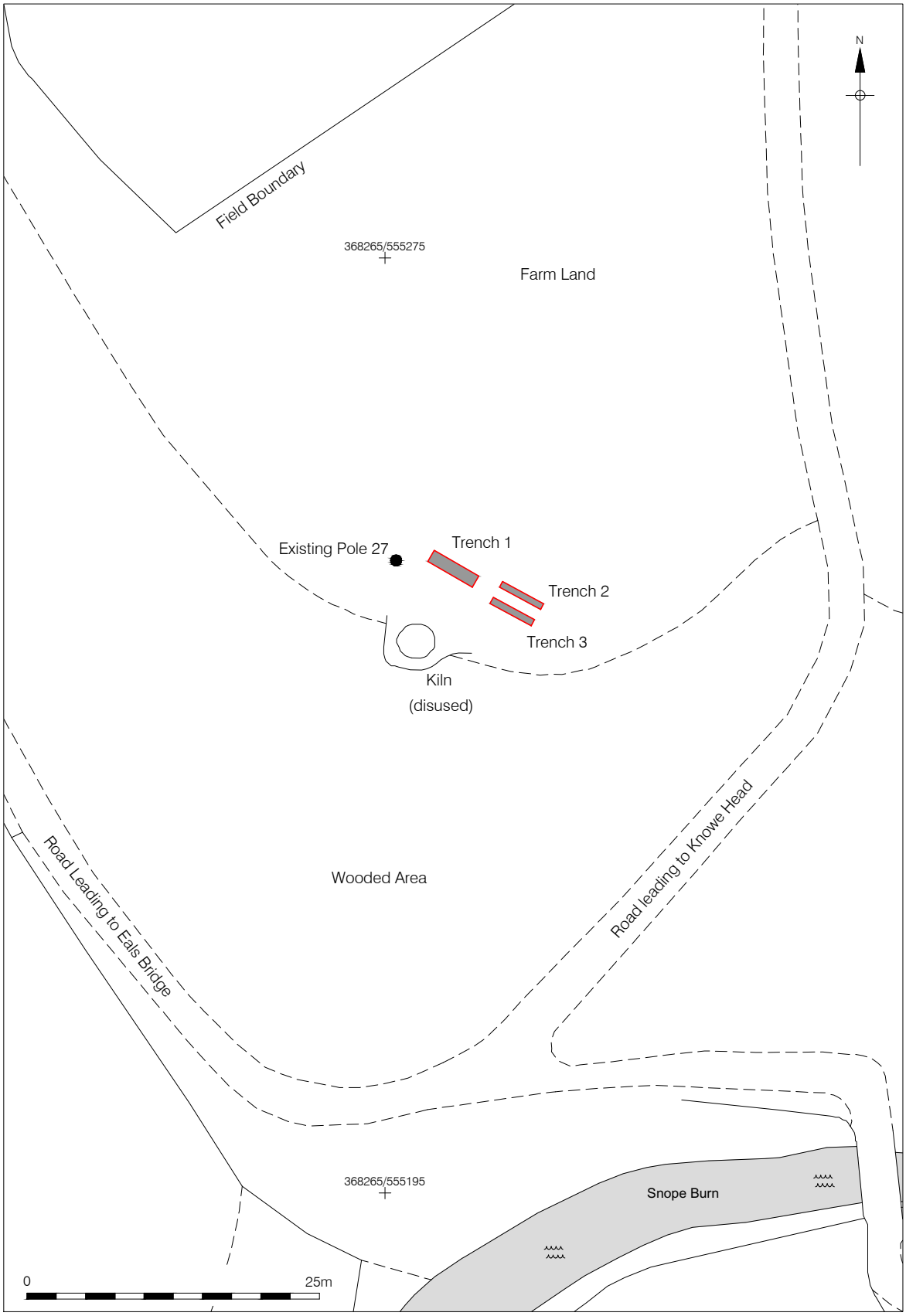

Figure 2
Trench Location
1:500 at A4

2.2.3 Pole 27 was situated towards the summit of the valley side, which dropped away sharply to the west, towards the river. The sloping valley side is generally covered with trees and dense shrubbery, and the area of the OHL pole is covered with dense undergrowth. The post-medieval lime kiln, which had been built into the valley side, is now in a state of severe disrepair, infilled with earth and rubble and with a tree growing within the structure.

2.2.4 The replacement pole for Pole 27 could not be sited at its intended location due to the presence of the lime kiln. It was, therefore, sited *c*. 2.50m south-east of the original pole in an area of land that had recently been fenced off to enclose a recently created pond, surrounded by pasture. The foundation pit for the new pole was therefore situated within this pasture, east of the new fence. Two foundation pits for supporting stays were sited to the south-east, one either side of the new fence.

2.3 Geology, Topography and Geoarchaeology

2.3.1 The River South Tyne is the dominant geological and topographical feature in the area of the OHL route. Pole 27 was located on the steep eastern valley side, close to the 180m OD contour. The ground drops away sharply to the west towards the river. A short distance to the south is the Snope Burn, a tributary of the South Tyne.

2.3.2 The South Tyne and its upland tributaries drain substantial areas of Carboniferous limestone and the Northern Pennine Orefield, once the most productive lead and zinc mining area in Britain.[3] In the upper reaches, around Alston, the Middle Limestone Group forms the solid geology, while beyond Burnstones, just north of Knarsdale, the solid geology is Millstone Grit/Upper Limestone.[4] Throughout the Tyne Basin, thick glacial, periglacial and glaciofluvial deposits mantle hill slopes and infill valley floors with present river channels inset within these Pleistocene deposits, Holocene alluvium or bedrock.[5]

2.3.3 In terms of Holocene river environments and valley floor development, Thinhope Burn, near Burnstones on the west side of the South Tyne, just north of Knarsdale, is considered the type site for the upper and middle reaches of the South Tyne.[6] Its deeply entrenched valley floor is entirely characteristic of this and neighbouring valleys, as is its wandering boulder and cobble bed channel with narrow floodplain, lying below a well-developed sequence of alluvial terraces. In terms of archaeological potential, slow rates of Holocene fine-grained overbank alluviation recorded at Thinford Burn up to the late Roman period suggest great potential for the burial of intact multi-period archaeological landscapes beneath Roman and later peat developments in the upper reaches of the South Tyne. Valley floor incision occurred from the late Roman period onwards, with such river erosion likely triggered, at least in part, by early historic clearance of river catchment woodland. A long period of entrenchment and lateral reworking of channels in the upper reaches of the South Tyne between the late Roman period and modern era has been punctuated by episodic alluviation. The late 18th and 19th centuries was notable for frequent large scale flood events resulting in marked down cutting of river channels, these likely resulting in truncation of archaeological landscapes and reworking and burial of artefacts.

[3] Macklin *et al*. 1992, 125.
[4] *ibid.,* Figure 12.1(a), 124.
[5] Passmore and Macklin 1997, 12.
[6] *ibid.,* 16-19.

2.4 Planning Background

2.4.1 NEDL are refurbishing the existing overhead electricity line between Slaggyford and Tipalt and a planning application (reference no. 20100086) was submitted for the scheme. Northumberland Conservation, the part of the County Council with responsibility for archaeological development control, was consulted about the potential archaeological impact of the scheme. Two specific locations were identified along the OHL route where archaeological remains, as recorded on the Northumberland Historic Environment Record (HER), may be affected by invasive groundworks:

- Pole 21. Located close to the line of the Maiden Way Roman road (HER 5968). Groundworks in this area could impact on below ground remains of the Roman road or associated remains.
- Pole 27. Located close to Eals Bridge line kiln (HER 5966). Groundworks in this area could impact on below ground remains associated with the lime kiln.

2.4.2 Therefore, in accordance with Policy HE12 of *Planning Policy Statement 5 'Planning for the Historic Environment*' (PPS5),[7] Northumberland Conservation requested that an archaeological watching brief was required in association with intrusive groundworks at these two locations. The Northumberland Conservation Brief set out the County Council's justification for the work, its objectives and the overall strategy and procedures to be applied to the programme of archaeological recording. PCA compiled the aforementioned Project Design to set out full details of the required scheme of archaeological investigation.

2.5 Archaeological and Historical Background

Northumberland HER numbers have been taken from 'Keys to the Past', the online HER for Northumberland and County Durham. Scheduled Monument (SM) numbers have been taken from 'MAGIC', a web-based interactive map service that collates environmental information from across government.

2.5.1 In broad terms, the area between Slaggyford and Tipalt through which the OHL route passes has a rich archaeological heritage ranging from prehistoric times through to the post-medieval and industrial eras.

2.5.2 Prehistoric activity in the general area is well attested and activity during the Neolithic period is known in the parish of Knarsedale with Kirhaugh, although it is not known whether this was permanent occupation or transitory visitations. A standing stone with cup marks on one side on Knaresdale Common (HER 13103), south-west of Slaggyford, dates from this period. A 'currick' or pile of stones (HER 13094) is known in Knarsdale Forest and this is thought to be a possible prehistoric horizon marker. Two Bronze Age barrows and a cairn (HER 6300) are known at Kirkside Wood near Kirkhaugh on the east side of the South Tyne.

[7] Department for Communities and Local Government 2010.

2.5.3 The Kirkside Wood barrows were excavated in 1935 and one contained a burial with a ceramic vessel, gold earring and some flint tools while the other contained a cremation burial in a ceramic vessel. There are other traces of prehistoric activity in the vicinity of Kirkside Wood, such as the remains of the possible Holymire stone circle (HER 13679), *c.* 0.5km to the south at Gilderdale Burn. The Bold Venture copper mine (HER 13105) south-east of Slaggyford may have been worked in the Bronze Age period, though this has not been proven.

2.5.4 Little is known of the Iron Age period in this area, but by the Roman period, a fort was constructed at Whitley Castle (*Epiacum*) (HER 5934), west of the South Tyne. Running along the valley side immediately to the east of *Epiacum* was the Maiden Way Roman road (HER 5968). This linked the Brough/Penrith road at Kirkby Thore, near Appleby, to *Carvoran* fort on Hadrian's Wall. Parts of this road are scheduled. Pole 21 on the Slaggyford to Tipalt OHL route lies close to the presumed line of the Maiden Way.

2.5.5 The village of Knarsdale, to the north of Pole 21, is a shrunken medieval village (HER 5592). The manor of Knarsdale was owned by the Pratt family in the 13th century. In 1666 Knarsdale had over 50 houses, many of which were isolated farms scattered through the parish of Knaresdale and Kirkhaugh. Today, Knarsdale has six homes, a farmstead and a rectory.

2.5.6 Post-medieval features on the area include a post-medieval lime kiln at Knarsdale Common (HER 6001) with a limestone quarry nearby. The Knarsdale Hall lime kiln (HER 6067) is situated north of the village and is of 18th or 19th century date.

2.5.7 Eals Bridge (HER 5970), located to the north-west of Pole 27 on the OHL route, is of late 18th century date. A number of bridges crossed the river here and have been destroyed by flooding. Near Pole 27 is Eals Bridge lime kiln (HER 5966), which is of broad post-medieval date, although a more precise date of origin is not known. The kiln is in an unstable condition and has been filled in; a large tree is growing within the structure.

3. PROJECT AIMS

3.1 In broad terms, the archaeological investigation aimed to record the character of archaeological remains exposed as a result of intrusive groundworks associated with the OHL refurbishment. In advance of the work, it was thought that such remains could encompass buried structures, deposits and features along with associated artefactual and ecofactual evidence.

3.2 The two locations along the OHL route identified as being of particular archaeological interest have been previously described.

3.3 The project had the potential to make a contribution to archaeological knowledge of the area.

4. ARCHAEOLOGICAL METHODOLOGY

4.1 Fieldwork

4.1.1 The watching brief on groundworks associated with the replacement of Pole 27 near Eals Bridge was undertaken on 8 September 2010. The work at Pole 21 near Knarsdale was not archaeologically monitored.

4.1.2 Fieldwork was undertaken in accordance with the relevant standard and guidance document of the Institute for Archaeologists (IfA),[8] the Brief issued by Northumberland Conservation and the Project Design compiled by PCA.

4.1.3 Groundworks were undertaken by personnel from NEDL. Undergrowth was cleared from the area of the lime kiln by hand to establish the limits of the structural remains (Figure 3). It became apparent that the replacement pole for Pole 27 could not be sited at its intended location due to the presence of the lime kiln. It was therefore sited *c.* 2.50m south-east of the original pole in an area of land that had recently been fenced off to enclose a recently created pond, surrounded by pasture. The foundation pit (Trench 1) for the new pole was situated within this pasture, east of the new fence, as was the first of two foundation pits (Trench 2) for supporting stays, while the second stay foundation pit (Trench 3) was located west of the new fence (Figure 2).

4.1.4 The foundation pit for the replacement for Pole 27 and the two stay foundation pits were mechanically excavated under archaeological supervision. A tracked five and half tonne excavator was used, utilising a toothless bucket (Figure 3). Trench 1, to accommodate a double pole for the OHL, measured 4.40m NW-SE x 1.10m wide x 2.35m deep (Figure 4). Trench 2, located to the south-east, to accommodate the first stay for the pole, measured 4.0m NW-SE x 0.55m wide x 1.45m deep (Figure 5). Trench 3, located to the south-west of Trench 2 and for the second stay, measured 4.0m NW-SE x 0.60m wide x 1.65m deep (Figure 6).

4.2 Post-excavation

4.2.1 The stratigraphic data for the project is represented by the written, drawn and photographic records. Post-excavation work involved checking and collating site records. A written summary of the archaeological sequence was then compiled, as described below.

4.2.2 No artefactual or organic material was recovered and no bulk samples for palaeoenvironmental remains were collected.

[8] IfA 2008a.

4.2.3 The complete Site Archive for the overall programme of watching brief, comprising only written, drawn and photographic records (including all material generated electronically during post-excavation), will be packaged for long term curation. In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document[9] will be adhered to, in particular a well-established United Kingdom Institute for Conservation (UKIC) document[10] and a more recent IfA publication.[11]

4.2.4 The Site Archive will ultimately be deposited with the Great North Museum under the site code SLA 10. The depositional requirements of the receiving body will be met in full.

[9] Brown 2007.
[10] Walker, UKIC 1990.
[11] IfA 2008b.

5. RESULTS: THE ARCHAEOLOGICAL SEQUENCE

During the investigation, separate stratigraphic entities were assigned unique and individual 'context' numbers, which are indicated in the following text as, for example [123].

5.1 Phase 1: Natural Sub-stratum

5.1.1 Naturally deposited material was observed in Trench 1, from a depth of the *c.* 0.50m below ground level to the base of the trench, to the base of the excavation at a depth of *c.* 2.35m. Due to the depth of the trench, it was not possible to examine the lowermost deposits in detail, although as recorded remotely, these deposits, [04], seen from a depth of *c.* 1.70m below ground level, comprised bands of firm, mid orange brown and mid blue grey sandy clay with frequent flecks and patches of manganese.

5.1.2 Overlying the distinct clayey deposits in the lowermost part of Trench 1 was a banded layer, [06], comprising loose mid greyish brown and bluish grey fine to medium sand, with occasional inclusions of small rounded to sub-angular stones. In Trench 1 this was recorded at a depth of *c.* 0.90m below ground level and was *c.* 0.70m thick. In both Trenches 2 and 3, what was evidently the same deposit, was encountered at a depth of *c.* 1.0m below ground level and the material had maximum recorded thicknesses of 0.55m and 0.65m in Trenches 2 and 3, respectively, continuing below the base of excavation.

5.1.3 In Trenches 2 and 3, layer [06] was overlain by a layer, [05], comprising compact light greyish brown clayey sand, with frequent patches of fine gravel and sandy clay, moderate manganese flecks and occasional medium to large sub-rounded stones. This was encountered at a depth of *c.* 0.45m below ground level in Trench 2, where it was *c.* 0.60m thick, and at a depth of *c.* 0.65m below ground level in Trench 3, where it was *c.* 0.35m thick.

5.1.4 The uppermost natural deposit in all three trenches was layer [03], comprising loose mid brownish orange clayey sand, with frequent inclusions of fine and medium gravel and moderate medium to large sub-rounded to sub-angular stones. This was encountered at a depth of *c.* 0.50m below ground level in Trench 1, where it was up to 0.40m thick, at *c.* 0.25m in Trench 2 where it was *c.* 0.25m thick, and at a depth of *c.* 0.30m below ground level in Trench 3, where it was *c.* 0.35m thick.

5.1.5 The deposits described above represent natural glaciofluvial material associated with the upper terrace of the valley of the River South Tyne. Detailed studies of the Holocene alluvial sequences in the Middle Tyne Valley have shown that the Late Pleistocene Terrace lies over 8m above the present river channel.[12] Located a short distance to the south-west of the site, the Thinhope Burn, a tributary of the River South Tyne, has also been the subject of detailed study and three river terraces have been recorded at 8m, 6m and 4m above the present stream bed.[13] The highest terrace consists of gravels overlain by a thickness of *c.* 2m of sands and silts.

[12] Macklin *et al.* 1992, 129.
[13] *ibid*., 132.

5.2 Phase 2: Modern

5.2.1 The uppermost glaciofluvial deposit in Trench 1 was overlain by a layer, [02], of very mixed composition, comprising patches of pinkish brown silty clay, which appears burnt in places, and orange brown sandy clay. This deposit, up to *c.* 0.30m thick, contained moderate inclusions of small, medium and large rounded to sub-angular stones, occasional charcoal flecks and fragments, and small fragments of clinker. This deposited extended across the trench and was encountered from a depth of 0.28m below ground level. It is interpreted as representing material dumped in this area during recent landscaping associated with the construction of the pond and erection of the new fenceline. The burnt material within this dumped deposit is likely to represent waste material originating from the lime kiln situated close by.

5.2.2 The dumped deposit in Trench 1 and the natural deposits in Trenches 2 and 3 were overlain by topsoil and turf, [01]. This comprised friable dark brownish black sandy, clayey silt with moderate inclusions of fine and medium gravel, along with occasional small fragments of clinker, spent coal and charcoal. This deposit was *c.* 0.25m thick in Trench 1, 0.20m thick in Trench 2 and 0.30m thick in Trench 3.

5.2.3 The burnt material observed within the topsoil deposits possibly represents debris from the nearby lime kiln.

Figure 3. Excavation of Trench 3, lime kiln in foreground, looking south-east *(scale 1m)*

Figure 4. Trench 1, looking north-west *(scale 1m)*

Figure 5. Trench 2, looking north-west *(scale 1m)*

Figure 6. Trench 3, looking south-east *(scale 1m)*

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

6.1.1 No features, deposits or structures of archaeological significance were recorded within the trenches excavated for the replacement of Pole 27 in the Slaggyford to Tipalt OHL refurbishment scheme. No artefactual material was recovered or noted within any of the deposits exposed.

6.1.2 Natural glaciofluvial deposits were recorded within all three excavated trenches at the site of Pole 27. These deposits represent the upper terrace of the River South Tyne and are of probable Late Pleistocene date.

6.1.3 Topsoil formed the existing overburden in all trenches. Burnt debris observed within the topsoil deposits is likely to represent waste material from the nearby post-medieval lime kiln.

6.2 Recommendations

6.2.1 No further work is required on the information recovered during the watching brief, with the Site Archive, including this report, forming the permanent record of the strata encountered.

7. REFERENCES

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Walker, K., 1990. *Guidelines for the Preparation of Excavation Archives for Long-term Storage,* Archaeology Section. United Kingdom Institute for Conservation.

Online Sources

www.keystothepast - the online HER for Northumberland and County Durham.

www.magic.gov.uk/ - a web-based interactive map service that brings together environmental information from across government.

8. ACKNOWLEDGEMENTS AND CREDITS

Acknowledgements

PCA would like to thank NEDL for commissioning the project herein described. The liaison role of Mark Joynes of NEDL is acknowledged.

The curatorial role of Karen Derham of Northumberland Conservation, NCC is acknowledged.

PCA Credits

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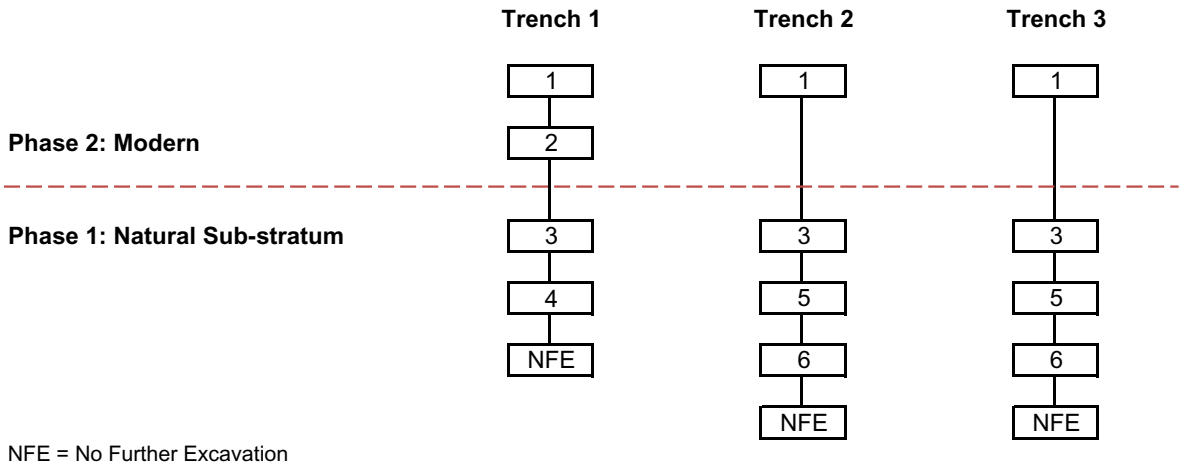
Fieldwork and Report: Jenny Proctor

Illustrations: Jennifer Simonson

APPENDIX A
STRATIGRAPHIC MATRICES

SLA 10: STRATIGRAPHIC MATRICES



NFE = No Further Excavation

APPENDIX B
CONTEXT INDEX

SLA 10: CONTEXT INDEX

Context	*Trench/Area*	*Phase*	*Type 1*	*Type 2*	*Interpretation*
1	All	2	Deposit	Layer	Topsoil
2	1	2	Deposit	Layer	Mixed dump deposit
3	All	1	Deposit	Layer	Natural glaciofluvial material
4	1	1	Deposit	Layer	Natural glaciofluvial material
5	2 & 3	1	Service	Layer	Natural glaciofluvial material
6	2 & 3	1	Deposit	Layer	Natural glaciofluvial material

APPENDIX B
NCC BRIEF

Utility ref: MJ/9815166
NC ref: T32/3; 10891

REBUILDING EXISTING OVERHEAD ELECTRICITY LINE, SLAGGYFORD TO TIPALT, NORTHUMBERLAND

Brief for an Archaeological Watching Brief

1 Introduction

1.1 NEDL are rebuilding the existing overhead electricity line from Slaggyford to Tipalt. Northumberland Conservation has been consulted about the potential archaeological impact of the proposed development and has identified two areas where archaeological remains may be affected by the groundwork required for the development. These comprise:

1. **Pole 21**
   Located close to the line of the Maiden Way Roman road (HER 5968). Groundworks in this area could impact on below ground remains of the Roman road or associated remains
2. **Pole 27**
   Located close to Eals Bridge lime kiln (HER 5966). Groundworks in this area could impact on below ground remains associated with the lime kiln

1.2 Given the archaeological sensitivity of the site, Northumberland Conservation has requested that an archaeological watching brief is carried out during all groundworks associated with the erection of Poles 21 and 27 (Fig 1).

1.3 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 'written scheme of investigation' required before work can commence**.

1.4 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 Method Statement, Project Design or Specification to Northumberland Conservation for approval prior to work commencing. The project design 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 Office (HER).

1.5 The extent of the watching brief area has been taken from plans supplied by NEDL (Fig 1). The archaeological consultant or contractor will need to confirm the extent of the development and the nature of the works with NEDL as part of the specification.

2 Method of work

2.1 The purpose of this work is to ensure that important archaeological remains are not destroyed without first being adequately recorded.

2.1.1 The proposed development has the potential to disturb important archaeological remains associated with the Maiden Way Roman road (Pole 21) and Eals Bridge lime kiln (Pole 27). It is considered that in this case a watching brief is the appropriate archaeological response.

2.2 General Standards

i) All work should be carried out in compliance with codes of conduct of the Institute for Archaeologists (IfA) [1] and should follow the IFA Standards for Watching Briefs. [2] All work should also be carried out in compliance with the Regional Statement of Good Practice. [3]

ii) All staff must be suitably qualified and experienced for their project roles.

iii) 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.

iv) **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 English Heritage Scientific Advisor for North East England, Dr Jacqui Huntley, English Heritage Offices, Bessie Surtees' House, 41-44 Sandhill, Newcastle upon Tyne NE1 3JF (Tel. 0191 269 1250 or Mobile (preferred contact): 077134 00387).**

v) This observation shall involve the systematic examination and accurate recording of all archaeological features, horizons and artefacts identified.

vi) **If archaeological remains are uncovered, the archaeologist should be given the opportunity of excavating and recording the remains before they are destroyed.**

vii) 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.

vii) 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 groundworks must be recorded with an **above ordnance datum (aOD)** level.

viii) 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.

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[1] Institute for Archaeologists, 2008, *By-Laws: Code* of Conduct (23 October 2008): http://www.archaeologists.net/modules/icontent/inPages/docs/codes/code_conduct.pdf

[2] Institute for Archaeologists, 2008, Standard and Guidance for an archaeological watching brief (28 October 2008): http://www.archaeologists.net/modules/icontent/inPages/docs/codes/watch2.pdf

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

ix) In the event of human burials being discovered, the archaeologist will procure and comply with all statutory consents and licences under the Burial Act 1857.

x) Where any part of a human burial is disturbed, the whole burial must be archaeologically excavated.

xi) 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.

xii) 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).

3 Contingency arrangements

3.1 In the event of the discovery of archaeological remains which are of a greater number or extent than anticipated, work will cease and the Assistant County Archaeologist 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.

3.2 The contingency for this project has been set at 20 person-days.

3.3 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). 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 English Heritage as per 'General Standards' above.

4 Post excavation work, archive, and report preparation

4.1 Finds

4.1.1 All finds processing, conservation work and storage of finds must be carried out in compliance with the IfA Guidelines for Finds Work [4] and those set by UKIC.

4.1.2 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.

4.1.3 All retained artefacts must be cleaned and packaged in accordance with the requirements of the recipient museum.

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[4] Institute for Archaeologists, 2008. *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials* (28 October 2008): http://www.archaeologists.net/modules/icontent/inPages/docs/codes/Finds2008.pdf

4.2 Site Archive

4.2.1 Archiving work must be carried out in compliance with the IfA Guidelines for Archiving [5].

4.2.2 The archive and the finds must be deposited in the appropriate local museum, within **6 months** of completion of the post-excavation work and report.

4.2.3 Before the commencement of fieldwork, contact should be made with the landowners and with the appropriate local museum to make the relevant arrangements. Details of land ownership should be provided by the developer. Details of the appropriate museum can be provided by the Assistant County Archaeologist.

4.2.4 Northumberland County Council will require confirmation that the archive had been submitted in a satisfactory form to the relevant museum.

4.3 Report

4.3.1 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.

4.3.2 Northumberland Conservation require one bound paper copy and one digital copy (in Word or PDF format) of the report

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

4.3.4 The report should include as a minimum the following:

i) NEDL reference number, Northumberland Conservation reference, OASIS reference number and an 8 figure grid reference
ii) A location plan of the site at an appropriate scale of at least 1:10 000
iii) 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
iv) Plans and sections of archaeology located at a recognisable planning scale (1:10, 1:20, 1:50 or 1:100, as appropriate)
v) A summary statement of the results
vi) A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds
vii) Any variation to the above requirements should be approved by Northumberland Conservation prior to work being submitted

4.4 OASIS

4.4.1 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.

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[5] Institute for Archaeologists, 2008. *Standard and Guidance for the creation, compilation, transfer and deposition of archaeological archives* (October 2008): http://www.archaeologists.net/modules/icontent/inPages/docs/codes/Archives2009.pdf

4.4.2 The archaeological consultant or contractor must therefore complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. 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**

4.5 Publication

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

4.5.2 A short report of the work should also be submitted to a local journal if appropriate.

5 Monitoring

5.1 The Assistant County Archaeologist must be informed on the start date and timetable for the watching brief **in advance** of work commencing.

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.

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.

6 Further Guidance

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

Karen Derham
Assistant County Archaeologist
Northumberland Conservation
Northumberland County Council
County Hall
Morpeth
Northumberland
NE61 2EF

Tel: 01670 534057
Fax: 01670 533409
e-mail: karen.derham@northumberland.gov.uk

29/6/10

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

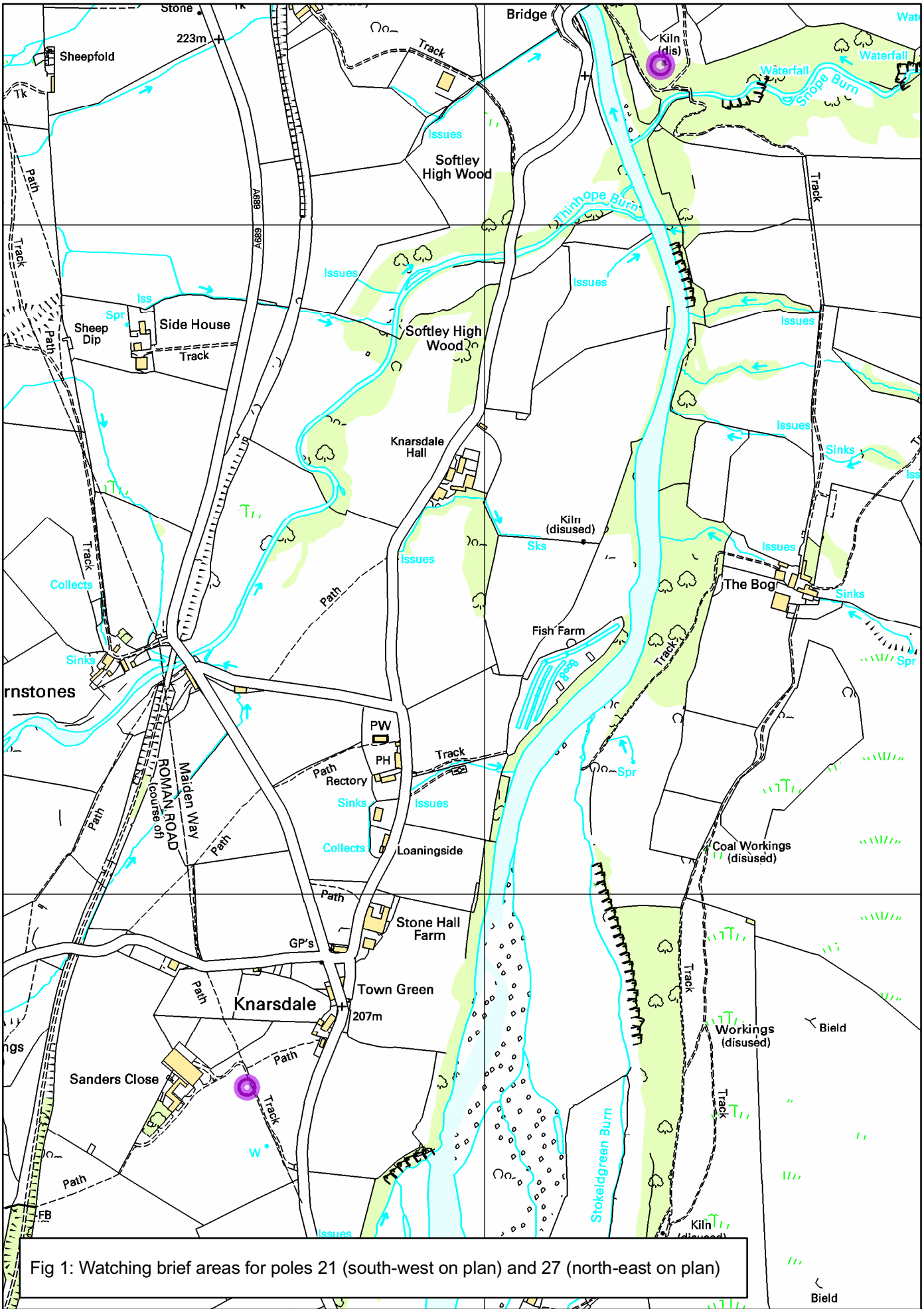

Fig 1: Watching brief areas for poles 21 (south-west on plan) and 27 (north-east on plan)

NORTHUMBERLAND
Northumberland County Council

DATE: 29/6/10 SCALE 1:7,500

Archaeological Watching Brief Report Check List

Site Name: Slaggyford to Tipalt OHL Refurbishment, near Eals Bridge, Knarsdale, Northumberland
Archaeological Contractor: PCA Limited

Check List	**Contractor (PCA)**	**Northumberland Conservation (NC)**
Copy of report checklist	√	
Utility ref.	√	
Northumberland Conservation ref.	√	
OASIS ref.	√	
Confirmation that all OASIS sections completed incl. submission of grey literature	√	
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	N/A	
Above Ordnance Datum levels and levels below current ground level in the text	N/A	
Above Ordnance Datum levels included on plans and sections	N/A	
Any variation approved by NC prior to work commencing	N/A	

Contractor checked: Robin Taylor-Wilson **NC Officer checked:**

Date: 28 October 2011 **Date:**

P C A

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